

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 20-F

(Mark One)

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**
- OR**
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2022
- OR**
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
- OR**
- SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number: 001-09531

TELEFÓNICA, S.A.

(Exact name of Registrant as specified in its charter)

Kingdom of Spain

(Jurisdiction of incorporation or organization)

**Distrito Telefónica, Ronda de la Comunicación, s/n
28050 Madrid, Spain**

(Address of principal executive offices)

**Consuelo Barbé Capdevila, Securities Market and Corporate Governance Legal Department
Distrito Telefónica, Ronda de la Comunicación, s/n, 28050 Madrid, Spain
Tel. +34 91 482 3733, Fax. +34 91 482 3817, e-mail: amv@telefonica.com**

**Adrián Zunzunegui Ruano, Head of Investor Relations
Distrito Telefónica, Ronda de la Comunicación, s/n, 28050 Madrid, Spain
Tel. +34 91 482 8700, Fax. +34 91 482 8600, e-mail: ir@telefonica.com**

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbols	Name of each exchange on which registered
Ordinary Shares, nominal value 1.00 euro per share*	TEF*	New York Stock Exchange*
American Depositary Shares, each representing one Ordinary Share	TEF	New York Stock Exchange
Guarantee ** by Telefónica, S.A. of the following, each of Telefónica Emisiones, S.A.U.		
<i>\$1,500,000,000 Fixed Rate Senior Notes Due 2027</i>	TEF/27	New York Stock Exchange
<i>\$2,000,000,000 Fixed Rate Guaranteed Senior Notes Due 2036</i>	TEF/36	New York Stock Exchange
<i>\$750,000,000 Fixed Rate Senior Notes Due 2038</i>	TEF/38	New York Stock Exchange
<i>\$2,500,000,000 Fixed Rate Senior Notes Due 2047</i>	TEF/47	New York Stock Exchange
<i>\$1,250,000,000 Fixed Rate Senior Notes Due 2048</i>	TEF/48	New York Stock Exchange
<i>\$1,250,000,000 Fixed Rate Senior Notes Due 2049</i>	TEF/49	New York Stock Exchange
Guarantee ** by Telefónica, S.A. of the following, each of Telefónica Europe B.V.		
<i>\$1,250,000,000 Fixed Rate Guaranteed Senior Notes Due 2030</i>	TEF/30	New York Stock Exchange

* Not for trading, but only in connection with the listing of American Depositary Shares, pursuant to the requirements of the New York Stock Exchange.

** Not for trading, but only in connection with the listing of the \$1,500,000,000 Fixed Rate Senior Notes Due 2027; \$2,000,000,000 Fixed Rate Guaranteed Senior Notes Due 2036; \$750,000,000 Fixed Rate Senior Notes Due 2038; \$2,500,000,000 Fixed Rate Senior Notes Due 2047; \$1,250,000,000 Fixed Rate Senior Notes Due 2048; and \$1,250,000,000 Fixed Rate Senior Notes Due 2049; each of Telefónica Emisiones, S.A.U., and the \$1,250,000,000 Fixed Rate Guaranteed Senior Notes Due 2030 of Telefónica Europe, B.V. (each a wholly-owned subsidiary of Telefónica, S.A.)

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**

The number of outstanding shares of each class of capital stock of Telefónica, S.A. at December 31, 2022 was:

Ordinary Shares, nominal value 1.00 euro per share: 5,775,237,554

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes

No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes

No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes

No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes

No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act (Check one):

Large Accelerated Filer Accelerated Filer Non-accelerated Filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13 (a) of the Exchange Act.

The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board

Other

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17

Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes

No

TABLE OF CONTENTS

<u>CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>7</u>
<u>CERTAIN TERMS AND CONVENTIONS</u>	<u>9</u>
<u>PRESENTATION OF CERTAIN FINANCIAL INFORMATION</u>	<u>13</u>
<u>PART I</u>	<u>14</u>
<u>Item 1. Identity of Directors, Senior Management and Advisors</u>	<u>14</u>
<u>A. Directors and Senior Management</u>	<u>14</u>
<u>B. Advisers</u>	<u>14</u>
<u>C. Auditors</u>	<u>14</u>
<u>Item 2. Offer Statistics and Expected Timetable</u>	<u>14</u>
<u>Item 3. Key Information</u>	<u>14</u>
<u>A. Selected Financial Data</u>	<u>14</u>
<u>B. Capitalization and Indebtedness</u>	<u>16</u>
<u>C. Reasons for the Offer and Use of Proceeds</u>	<u>16</u>
<u>D. Risk Factors</u>	<u>16</u>
<u>Item 4. Information on the Company</u>	<u>31</u>
<u>A. History and Development of the Company</u>	<u>31</u>
<u>B. Business Overview</u>	<u>42</u>
<u>C. Organizational Structure</u>	<u>82</u>
<u>D. Property, Plant and Equipment</u>	<u>82</u>
<u>Item 4A. Unresolved Staff Comments</u>	<u>84</u>
<u>Item 5. Operating and Financial Review and Prospects</u>	<u>84</u>
<u>A. Operating Results</u>	<u>84</u>
<u>B. Liquidity and Capital Resources</u>	<u>96</u>
<u>C. Research and Development, Patents and Licenses, etc.</u>	<u>100</u>

<u>D. Trend Information</u>	<u>102</u>
<u>E. Critical Accounting Estimates</u>	<u>103</u>
<u>F. Non-GAAP Financial Information</u>	<u>103</u>
<u>Item 6. Directors, Senior Management and Employees</u>	<u>109</u>
<u>A. Directors and Senior Management</u>	<u>110</u>
<u>B. Compensation</u>	<u>121</u>
<u>C. Board Practices</u>	<u>121</u>
<u>D. Employees</u>	<u>121</u>
<u>E. Share Ownership</u>	<u>121</u>
<u>Item 7. Major Shareholders and Related Party Transactions</u>	<u>122</u>
<u>A. Major Shareholders</u>	<u>122</u>
<u>B. Related Party Transactions</u>	<u>123</u>
<u>C. Interests of Experts and Counsel</u>	<u>124</u>
<u>Item 8. Financial Information</u>	<u>124</u>
<u>Item 9. The Offering and Listing</u>	<u>133</u>
<u>A. Offer and Listing Details</u>	<u>133</u>
<u>B. Plan of Distribution</u>	<u>140</u>
<u>C. Markets</u>	<u>140</u>
<u>D. Selling Shareholders</u>	<u>140</u>
<u>E. Dilution</u>	<u>140</u>
<u>F. Expenses of the Issue</u>	<u>140</u>
<u>Item 10. Additional Information</u>	<u>140</u>
<u>A. Share Capital</u>	<u>140</u>
<u>B. Memorandum and Articles of Association</u>	<u>140</u>
<u>C. Material Contracts</u>	<u>152</u>
<u>D. Exchange Controls</u>	<u>159</u>
<u>E. Taxation</u>	<u>160</u>

<u>F. Dividends and Paying Agents</u>	<u>164</u>
<u>G. Statements by Experts</u>	<u>164</u>
<u>H. Documents on Display</u>	<u>164</u>
<u>I. Subsidiary Information</u>	<u>164</u>
<u>Item 11. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>164</u>
<u>Item 12. Description of Securities Other Than Equity Securities</u>	<u>165</u>
<u>D.American Depositary Shares</u>	<u>165</u>
<u>Part II</u>	<u>168</u>
<u>Item 13. Defaults, Dividend Arrearages and Delinquencies</u>	<u>168</u>
<u>Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds</u>	<u>168</u>
<u>Item 15. Controls and Procedures</u>	<u>168</u>
<u>Item 16. [Reserved]</u>	<u>169</u>
<u>Item 16A. Audit Committee Financial Expert</u>	<u>169</u>
<u>Item 16B. Code of Ethics</u>	<u>169</u>
<u>Item 16C. Principal Accountant Fees and Services</u>	<u>169</u>
<u>Item 16D. Exemptions from the Listing Standards for Audit Committees</u>	<u>170</u>
<u>Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	<u>170</u>
<u>Item 16F. Change in Registrant's Certifying Accountant</u>	<u>170</u>
<u>Item 16G. Corporate Governance</u>	<u>171</u>
<u>Item 16H. Mine Safety Disclosure</u>	<u>173</u>
<u>Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections</u>	<u>173</u>
<u>Part III</u>	<u>174</u>
<u>Item 17. Financial Statements</u>	<u>174</u>
<u>Item 18. Financial Statements</u>	<u>174</u>
<u>Item 19. Exhibits</u>	<u>174</u>

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report contains statements that constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements in this Annual Report can be identified, in some instances, by the use of words such as “will,” “shall,” “target,” “expect,” “aim,” “hope,” “anticipate,” “should,” “may,” “might,” “assume,” “estimate,” “plan,” “intend,” “believe” and similar language or other formulations of a similar meaning or, in each case, the negative formulations thereof. Other forward-looking statements can be identified in the context in which the statements are made or by the forward-looking nature of discussions of strategy, plans or intentions. These statements appear in a number of places in this Annual Report including, without limitation, certain statements made in “Item 3. Key Information—Risk Factors,” “Item 4. Information on the Company,” “Item 5. Operating and Financial Review and Prospects” and “Item 11. Quantitative and Qualitative Disclosures About Market Risk” and include statements regarding our intent, belief or current expectations with respect to, among other things:

- the effect on our results of operations of competition in telecommunications markets;
- trends affecting our business, financial condition, results of operations or cash flows;
- ongoing or future acquisitions, investments or divestments;
- our capital expenditures plan;
- our estimated availability of funds;
- our ability to repay debt with estimated future cash flows;
- our shareholder remuneration policies;
- supervision and regulation of the telecommunications sectors where we have significant operations;
- our environmental, social and governance commitments and targets;
- our existing or future strategic partnerships or joint ventures;
- the potential for growth and competition in current and anticipated areas of our business; and
- the outcome of pending or future litigation or other legal proceedings.

Such forward-looking statements are not guarantees of future performance and involve numerous risks and uncertainties, and actual results may differ materially from those anticipated in the forward-looking statements as a result of various factors. The risks and uncertainties involved in our businesses that could affect the matters referred to in such forward-looking statements include but are not limited to:

- changes in general economic, business or political conditions in the domestic or international markets in which we operate or have material investments that may affect our business, financial condition, results of operations, cash flows and/or the performance of some or all of our financial indicators, including as a result of the evolution of increasing trade or geopolitical tensions in certain parts of the world, including as a result of the armed conflict in Ukraine, inflation, the pace of monetary stimulus withdrawal and interest-rate hikes, the worsening of the fiscal sustainability in some European countries, economic and political uncertainties in Spain, the impact of Brexit or the COVID-19 pandemic;
- compliance with data privacy regulations and the impact of our inability to comply with any such regulations, including liability for any loss, transfer or inappropriate modification of customer data or general public data stored on our servers or transmitted through our networks;
- exposure to currency exchange rates, interest rates or credit risk, including in relation to our investments or in some of our financial transactions;
- existing or worsening conditions in the international financial markets;

- the impact of current, pending or future legislation and regulation in countries where we operate, as well as any failure to renew or obtain the necessary licenses, authorizations and concessions to carry out our operations and the impact of limitations in spectrum capacity;
- compliance with anti-corruption laws and regulations and economic sanctions programs and the impact of any breach of any such laws, regulations and programs;
- our inability to anticipate or adapt in a timely manner to changing customer demands and/or new ethical or social standards;
- changes in our competitive position, including as a result of the evolution of competition and market consolidation in the markets where we operate, as well as the impact of any failure to comply with any antitrust regulations or any regulatory actions imposed by antitrust authorities;
- our inability to anticipate and adapt to the rapid technological changes that characterize the sector in which we operate, or to select the right investments to make;
- our dependence on suppliers and their failure to provide necessary equipment and services on a timely basis or otherwise meet our performance expectations;
- the impact of unanticipated network interruptions, including as a result of sabotage;
- the impact of cyber-threats and cyber-security actions;
- the impact of impairment charges on our goodwill, property, plant and equipment, intangible assets, investments accounted for using the equity method, deferred taxes or other assets as a result of changes in the regulatory, business, economic or political environment or other factors;
- the impact of a decrease in our liquidity or difficulties in our ability to finance ourselves;
- our ability to address physical, regulatory, reputational, transition and business risks associated with climate change and emerging and developing environmental, social and governance standards;
- the outcome of pending or future litigation or other legal proceedings, and
- our ability to complete any pending acquisition, divestment or other significant transaction as planned or to achieve the expected outcome from any completed acquisition, divestment or other significant transaction (including our 50:50 joint venture with Liberty Global in the United Kingdom, VMED O2 UK Limited).

Readers are cautioned not to place undue reliance on those forward-looking statements, which speak only as of the date of this Annual Report. We do not undertake any obligation to update any forward-looking statements that may be made to reflect events or circumstances after the date of this Annual Report including, without limitation, changes in our business or acquisition strategy or planned capital expenditures, or to reflect the occurrence of unanticipated events.

CERTAIN TERMS AND CONVENTIONS

Our ordinary shares, nominal value 1.00 euro per share, are currently listed on each of the Madrid, Barcelona, Bilbao and Valencia stock exchanges (collectively, the **"Spanish Stock Exchanges"**) and are quoted through the Automated Quotation System under the symbol "TEF". American Depositary Shares (**"ADSs"**), each representing the right to receive one ordinary share, are listed on the New York Stock Exchange (the **"NYSE"**) and on the Lima Stock Exchange. ADSs are evidenced by American Depositary Receipts (**"ADRs"**) issued under a Deposit Agreement with Citibank, N.A., as Depositary.

As used herein, **"Telefónica,"** the **"Telefónica Group,"** the **"Group,"** the **"Company"** and terms such as **"we,"** **"us"** and **"our"** mean Telefónica, S.A. and its consolidated subsidiaries, unless the context requires otherwise.

"p.p." means percentage points.

"YoY" or **"y-o-y"** means year-on-year.

For definitions of **"operating income before depreciation and amortization"** (OIBDA), **"OIBDA-CapEx,"** **"OIBDA-CapEx excluding spectrum acquisitions,"** **"net financial debt,"** **"net financial debt plus leases,"** **"net financial debt plus commitments,"** **"net financial debt plus leases plus commitments"** and **"free cash flow"** see "Item 5. Operating and Financial Review and Prospects- Non-GAAP Financial Information".

Below are definitions of certain technical terms used in this Annual Report:

"5G" is a technology succeeding the mobile technology called 4G. The aim is to make the navigation experience and Internet downloads more agile.

"Access" refers to a connection to any of the telecommunications services offered by Telefónica. A single fixed customer may contract for multiple services, and Telefónica believes that it is more useful to count the number of accesses a customer has contracted for, rather than to merely count the number of its customers. For example, a customer that has fixed line telephony service and broadband service is counted as two accesses rather than as one customer.

"ARPU" is total mobile service revenues during the relevant period divided by the average number of retail accesses (based on the beginning and the month-end number of retail accesses during such period), divided by the number of months in such period.

"Artificial Intelligence" is intelligent tasks carried out by machines.

"AWS" or Amazon Web Services refers to Amazon's service platform offering data base storage, content delivery and other functionalities that can help a business to grow. It is also more secure than a physical server.

"B2B" or business to business is the business segment.

"B2C" or business to customer is the residential segment.

"Bundle" refers to a combination of products that combine fixed services (wirelines, broadband and television) and mobile services.

"CATV" or community antenna television is a system of delivering television programming to consumers via radio frequency (RF) signals transmitted through coaxial cables, or in more recent systems, via light pulses through fiber-optic cables.

"Churn" is the number of disconnections over the average customer base in a given period divided by the number of months in such period.

"Cloud computing" is a service whereby shared resources, software and information are provided to computers and other devices as a utility over a network (typically, the Internet).

"Cloud Phone" is an application that allows the transfer of files between two smartphones in a simple way.

"Commercial activity" includes the addition of new lines, replacement of handsets, migrations and disconnections.

"Connected car" is a vehicle equipped with Internet access and generally through a local wireless network or satellite.

"Convergent" refers to the offer of a fixed service together with a mobile service.

"Data ARPU" is data revenues during the relevant period divided by the average number of retail accesses (based on the beginning and the month-end number of retail accesses during such period), divided by the number of months in such period.

"Data revenues" include revenues from mobile data services such as mobile connectivity and mobile Internet, premium messaging, downloading ringtones and logos, mobile mail and SMS/MMS.

"Data traffic" includes all traffic from Internet access, messaging (SMS, MMS) and connectivity services over Telefónica's network.

"DTH (Direct-To-Home)" is a technology used for the provision of TV services.

"Fixed telephony accesses" includes public switched telephone network (PSTN) lines (including public use telephony), integrated services digital network (ISDN) lines and circuits, "fixed wireless" and Voice over IP accesses.

"FTRs" or Fixed termination rates is an established fixed network tariff that applies when a customer makes a call to someone in a network operated by another operator.

"FTTH" or Fiber to Home is a telecommunications technology that consists of the use of fiber optic cabling and optical distribution systems for the provision of Internet services and IPTV to homes, businesses and companies.

"FTTP" or Fiber to the Premises refers to equipment used in fiber access deployments where fibers extend all the way to the end user premises and the equipment is designed and optimized for use in residential applications.

"FTTx" is a generic term for any broadband network architecture that uses optical fiber to replace all or part of the metal local loop.

"Gbps" means Gigabytes per second.

"GHz" means gigahertz.

"ICT" or information communication technology is the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numerical information by a microelectronics-based combination of computing and telecommunications.

"Interconnection revenues" means revenues received from other operators which use Telefónica's networks to connect to or finish their calls and SMS or to connect to their customers.

"Internet and data accesses", "Fixed broadband accesses" or "FBB accesses" include broadband accesses (including retail asymmetrical digital subscriber line (ADSL), very high bit-rate digital subscriber line (VDSL), satellite, fiber optic and circuits over 2 Mbps), narrowband accesses (Internet service through the PSTN lines) and the remaining non-broadband final customer circuits. Internet and data accesses also include "Naked ADSL", which allows customers to subscribe for a broadband connection without a monthly fixed line fee.

"IoT" or Internet of Things refers to technologies that allow both mobile and wired systems to communicate with other devices with the same capability.

"IPTV" or Internet Protocol Television refers to distribution systems for television subscription signals or video using broadband connections over the IP protocol.

"ISDN" or Integrated Services Digital Network is a format commonly used for transmitting information through a digital high speed connection.

"Local loop" means the physical circuit connecting the network termination point at the subscriber's premises to the main distribution frame or equivalent facility in the fixed public telephone network.

"LTE" or Long-Term Evolution is a 4G mobile access technology.

"Market share" is the percentage ratio of the number of final accesses over the existing total market in an operating area.

"Mb" means Megabytes.

"MHz" means megahertz.

"MMS" or Multimedia Messaging Service is a standard messaging system allowing mobile phones to send and receive multimedia content, including sound, video and photos.

"Mobile accesses" include accesses to the mobile network for voice and/or data services (including connectivity). Mobile accesses are categorized into contract, prepay and IoT accesses.

"Mobile broadband" includes Mobile Internet (Internet access from devices also used to make voice calls such as smartphones), and Mobile Connectivity (Internet access from devices that complement fixed broadband, such as PC Cards/dongles, which enable large amounts of data to be downloaded on the move).

"MTR" or mobile termination rate is an established mobile network tariff that applies when a customer makes a call to someone in a network operated by another operator.

"MVNO" or mobile virtual network operator is a mobile operator that provides mobile services through another mobile operator. An MVNO pays a determined tariff to such mobile network operator for using the infrastructure to facilitate coverage to its customers.

"Net adds/Net loss" is the difference between the customer base as of the end of a certain period compared to December 31 of the prior year.

"OTT services" or over the top services means services provided through the Internet (such as television and video streaming).

"Pay TV" includes cable TV, direct to home satellite TV (DTH) and IPTV.

"PSTN" is Public Switched Telephone Network.

"Revenues" means net sales and revenues from rendering of services.

"Service revenues" are total revenues minus mobile handset sales. Service revenues are mainly related to telecommunication services, especially voice- and data revenues (SMS and data traffic download and upload revenues) consumed by Telefónica's customers.

"SIM" means subscriber identity module, a removable intelligent card used in mobile handsets, USB modems, etc. to identify the user in the network.

"Smart Wi-Fi" is an application in which users can control their Wi-Fi network and the devices connected to it from their mobile.

"SMS" means short messaging service.

"STB (Set-top box)" is a device that converts a digital television signal to analogue for viewing on a conventional set, or that enables cable or satellite television to be viewed.

"Tbps" means terabytes per second.

"Tracker" is a special server which contains the information needed for users to connect with other users.

"UBB" or **Ultra Broadband** is the fiber-to-the-premise broadband which is capable of giving a minimum download speed of 100 Mbps and a minimum upload speed of 50 Mbps.

"VMO2" refers to VMED O2 UK Limited, our 50:50 joint venture with Liberty Global plc in the United Kingdom, or to the Group's VMO2 operating segment, as the context requires.

"Voice traffic" means voice minutes used by Telefónica's customers over a given period, both outbound and inbound.

"VoIP" means voice over Internet protocol.

"VPN" or Virtual Private Network extends a private network across a public network and enables users to send and receive data across shared or public network.

"Wholesale accesses" means accesses Telefónica provides to other companies, who then sell services over such accesses to their residential and corporate clients.

PRESENTATION OF CERTAIN FINANCIAL INFORMATION

In this Annual Report, references to “U.S. dollars,” “dollars” or “\$,” are to United States dollars, references to “pounds sterling,” “sterling” or “£” are to British pounds sterling, references to “real” or “reais” refer to Brazilian real and references to “euro”, “euros” or “€” are to the single currency of the participating member states in the Third Stage of the European Economic and Monetary Union pursuant to the treaty establishing the European Community, as amended from time to time.

Our consolidated financial statements as of December 31, 2022 and 2021, and for the years ended December 31, 2022, 2021 and 2020 included elsewhere in this Annual Report, including the notes thereto (the “**Consolidated Financial Statements**”), are prepared in conformity with International Financial Reporting Standards (“**IFRS**”) as issued by the International Accounting Standards Board (“**IASB**”).

PART I

Item 1. Identity of Directors, Senior Management and Advisors

A. Directors and Senior Management

Not applicable.

B. Advisers

Not applicable.

C. Auditors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

A. Selected Financial Data

The following table presents certain selected consolidated financial data. It is to be read in conjunction with “Item 5. Operating and Financial Review and Prospects”, “Item 4. Information on the Company—Business Overview” and the Consolidated Financial Statements. The consolidated income statements and the consolidated statements of cash flows data for the years ended December 31, 2020, 2021 and 2022 and the consolidated statements of financial position data as of December 31, 2021 and 2022 set forth below are derived from, and are qualified in their entirety by reference to the Consolidated Financial Statements. The consolidated income statements and the consolidated statements of cash flows data for the years ended December 31, 2018 and 2019 and the consolidated statements of financial position data as of December 31, 2018, 2019 and 2020 are not included in this Annual Report, and they instead are derived from the last year Annual Report on Form 20-F filed by us.

Our Consolidated Financial Statements have been prepared in accordance with IFRS as issued by the IASB.

The basis of presentation is described in detail in Note 2 to our Consolidated Financial Statements.

Millions of euros	2018	2019	2020	2021	2022
Consolidated Income Statements Data					
Revenues	48,693	48,422	43,076	39,277	39,993
Other income	1,622	2,842	1,587	12,673	2,065
Supplies	(14,013)	(13,635)	(13,014)	(12,258)	(12,941)
Personnel expenses	(6,332)	(8,066)	(5,280)	(6,733)	(5,524)
Other expenses	(14,399)	(14,444)	(12,871)	(10,976)	(10,741)
Depreciation and amortization	(9,049)	(10,582)	(9,359)	(8,397)	(8,796)
OPERATING INCOME	6,522	4,537	4,139	13,586	4,056
Share of (loss) income of investments accounted for by the equity method	4	13	2	(127)	217
Net finance expense	(1,232)	(1,953)	(1,740)	(1,414)	(1,227)
Net exchange differences	277	121	182	50	(86)
Net financial expense	(955)	(1,832)	(1,558)	(1,364)	(1,313)
PROFIT BEFORE TAX	5,571	2,718	2,583	12,095	2,960
Corporate income tax	(1,621)	(1,054)	(626)	(1,378)	(641)
PROFIT FOR THE YEAR	3,950	1,664	1,957	10,717	2,319
Attributable to equity holders of the parent	3,331	1,142	1,582	8,137	2,011
Attributable to non-controlling interests	619	522	375	2,580	308
Other Data					
Weighted average number of shares-Basic (thousands) ⁽¹⁾	5,941,714	5,933,094	5,952,695	5,864,070	5,740,105
Basic earnings per share attributable to equity holders of the parent (euro) ⁽¹⁾	0.49	0.14	0.22	1.34	0.31
Diluted earnings per share attributable to equity holders of the parent (euro) ⁽¹⁾	0.49	0.14	0.22	1.34	0.31
Basic earnings per ADS (euro) ⁽¹⁾	0.49	0.14	0.22	1.34	0.31
Diluted earnings per ADS (euro) ⁽¹⁾	0.49	0.14	0.22	1.34	0.31
Weighted average number of ADS-Basic (thousands) ⁽¹⁾	5,941,714	5,933,094	5,952,695	5,864,070	5,740,105
Dividends per ordinary share (cash and scrip) (€)	0.40	0.40	0.40	0.35	0.30
Dividends per ordinary share (cash and scrip) (\$) (2)	0.46	0.45	0.47	0.41	0.31
Consolidated Statements of Financial Position Data					
Cash and cash equivalents	5,692	6,042	5,604	8,580	7,245
Property, plant and equipment	33,295	32,228	23,769	22,725	23,714
Total assets	114,047	118,877	105,051	109,213	109,642
Non-current liabilities	57,418	63,236	58,674	55,034	54,834
Equity	26,980	25,450	18,260	28,684	31,708
Capital stock	5,192	5,192	5,526	5,779	5,775
Consolidated Statements of Cash Flows Data					
Net cash provided by operating activities	13,423	15,022	13,196	10,268	11,763
Net cash from (used in) investing activities	(8,685)	(5,641)	(7,790)	5,896	(5,327)
Net cash used in financing activities	(3,880)	(9,021)	(5,438)	(12,990)	(7,925)

⁽¹⁾ The per share and per ADS computations for all periods presented have been reported using the weighted average number of shares and ADSs, respectively, outstanding for each period, and have been adjusted to reflect the stock dividends which occurred during the periods presented, as if these had occurred at the beginning of the earliest period presented. In accordance with IAS 33 ("Earnings per share"), the weighted average number of ordinary shares (including in the form of ADSs) outstanding for each of the periods covered has been

restated to reflect the issuance of shares pursuant to Telefónica's scrip dividends in June 2020, December 2020, June 2021, December 2021 and June 2022.

(2) Quantities in U.S. dollars are calculated in accordance with the conversion rate published by the Depository (Citibank, N.A.) in connection with each dividend payment.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

The Telefónica Group's business is affected by a series of risk factors that affect exclusively the Group, as well as a series of external factors that are common to businesses of the same sector. The main risks and uncertainties faced by Telefónica, which could affect its business, financial condition, results of operations and/or cash flows are set out below and must be considered jointly with the information set out in the rest of this Annual Report.

These risks are currently considered by the Telefónica Group to be material, specific and relevant in making an informed investment decision in respect of Telefónica. However, the Telefónica Group is subject to other risks that have not been included in this section based on the Telefónica Group's assessment of their specificity and materiality based on the Telefónica Group's assessment of their probability of occurrence and the potential magnitude of their impact. The assessment of the potential impact of any risk is both quantitative and qualitative considering, among other things, potential economic, compliance, reputational and environmental, social and governance ("ESG") impacts.

The Telefónica Group, taking into account the global risks identified by the World Economic Forum, as well as the increase in legal information requirements and the expectations of stakeholders in this area, monitors risks directly related to sustainability, as well as other risks with potential impact on ESG, highlighting those most relevant in the context of Telefónica's operation, including the adaptation to ESG expectations and information requirements and climate change.

Risks are presented in this section grouped into four categories: business, operational, financial, and legal and compliance.

These categories are not presented in order of importance. However, within each category, the risk factors are presented in descending order of importance, as determined by Telefónica at the date of this Annual Report. Telefónica may change its vision about their relative importance at any time, especially if new internal or external events arise.

Risks Related to Telefónica's Business Activities.

Telefónica's competitive position in some markets could be affected by the evolution of competition and market consolidation.

The Telefónica Group operates in highly competitive markets and it is possible that the Group may not be able to market its products and services effectively or respond successfully to the different commercial actions carried out by its competitors, causing it to not meet its growth and customer retention plans, thereby jeopardizing its future revenues and profitability.

The reinforcement of competitors, the entry of new competitors (either new players or providers of OTT Services), or the merger of operators in certain markets (for example, market consolidation in the United Kingdom following a potential merger of mobile operators Vodafone UK and Three UK), may affect Telefónica's competitive position, negatively affecting the evolution of its revenues and market share or increasing its costs. In addition, changes in competitive dynamics in the different markets in which the Telefónica Group operates, such as in Chile, Colombia, Peru, Mexico and Argentina, where there are aggressive customer acquisition offers, including unlimited data and discounts on certain services, among others, can affect the competitive position and the efficiency of Telefónica's operations.

If Telefónica is not able to successfully face these challenges, the Group's business, financial condition, results of operations and/or cash flows could be adversely affected.

The Group requires government concessions and licenses for the provision of a large part of its services and the use of spectrum, which is a scarce and costly resource.

The telecommunications sector is subject to laws and sector-specific regulations. The fact that the Group's business is highly regulated affects its revenues, operating income before depreciation and amortization ("OIBDA") and investments.

Many of the Group's activities (such as the provision of telephone services, Pay TV, the installation and operation of telecommunications networks, etc.) require licenses, concessions or authorizations from governmental authorities, which typically require that the Group satisfies certain obligations, including minimum specified quality levels, and service and coverage conditions. If the Telefónica Group breaches any of such obligations, it may suffer consequences such as economic fines or other measures that would affect the continuity of its business. In addition, in certain jurisdictions, the terms of granted licenses may be modified before the expiration date of such licenses or, at the time of the renewal of a license, new enforceable obligations could be imposed or the renewal of a license could be refused.

Additionally, the Telefónica Group could be affected by the regulatory actions of antitrust authorities. These authorities could prohibit certain actions, such as new acquisitions or specific practices, create obligations or impose heavy fines. Any such measures implemented by the antitrust authorities could result in economic and/or reputational loss for the Group, in addition to a loss of market share and/or harm to the future growth of some of its businesses.

Any of the foregoing could have an adverse effect on the business, financial condition, results of operations and/or cash flows of the Group.

Access to new concessions/ licenses of spectrum.

The Group requires sufficient spectrum to offer its services. The Group's failure to obtain sufficient or appropriate spectrum capacity in the jurisdictions in which it operates, or its inability to assume the related costs, could have an adverse impact on its ability to maintain the quality of existing services and on its ability to launch and provide new services, which may materially adversely affect Telefónica's business, financial condition, results of operations and/or cash flows.

The intention of the Group is to maintain current spectrum capacity and, if possible, to expand it, through the participation of the Group in spectrum auctions which are expected to take place in the next few years, which will likely require cash outflows to obtain additional spectrum or to comply with the coverage requirements associated with some of the related licenses.

In Spain, the Ministry of Economic Affairs and Digital Transformation launched a public consultation on the National Frequency Allocation Table, raising the possibility of making available 450 MHz of the 26 GHz spectrum band, to companies, industries and organizations operating in a specific sector, that deploy private networks to support their connectivity needs (verticals). This could mean more competition in the private corporate network segment.

In the UK, in May 2022, the Office of Communications ("Ofcom") launched a public consultation on opening access to the 26 GHz and 40 GHz bands for mobile use. This is the first of a series of detailed consultations on the award, with a process possible towards the end of 2024 at the earliest. The consultation outlines the proposal to offer a range of local and city-wide licenses, differentiating between low- and high-density areas.

In Latin America, several auction processes are expected in the near term: (i) in Colombia, in December 2022, the Ministry of Information Technologies and Communications ("MinTIC") asked the industry to express their interest in participating in a possible auction for the spectrum that remains available in the 700 MHz, 1900 MHz and 2500 MHz bands as well as for 5G spectrum (3.5 GHz and 26 GHz bands). In such expression of interest, which is non-binding, Telefónica expressed its interest in obtaining spectrum in all the proposed bands except 26GHz. In its expression of interest Telefónica also highlighted the need to delay all spectrum auctions until the review on the spectrum pricing methodology currently underway is completed, and there is an alignment between spectrum cost and its value generation capacity, and until measures to avoid an excessive control of this resource by the dominant operator are defined. To date, no specific dates have been proposed for an eventual spectrum auction; (ii) in Peru, the authorities have indicated their interest in resuming the auction on the 1750 – 1780 MHz, 2150 – 2180 MHz and

2300 – 2330 MHz bands, but no specific date or conditions have been set for it. With regards to 5G and the spectrum auction for the 3.5 GHz and 26 GHz band, the government has not yet taken a decision; and (iii) in Argentina, the government has made public its intention to auction 5G spectrum in 2023, but no specific date for the process has been published. Pursuant to Resolution 2385/2022 published on December 28, 2022, the Ente Nacional de Comunicaciones (Enacom) approved the General Rules for Intelligent and Reliable Telecommunications Services that preliminarily sets the conditions for the implementation of 5G in Argentina; iv) in Uruguay on December 28, 2022 the Executive Power signed the decree authorizing an auction process for the 3.5 GHz band to occur in the first quarter of 2023.

Existing licenses: renewal processes and modification of conditions for operating services.

The revocation or failure to renew the Group's existing licenses, authorizations or concessions, or any challenges or amendments to their terms, could materially adversely affect Telefónica's business, financial condition, results of operations and/or cash flows.

In Spain, and in accordance with the new Telecommunications Act (second transitory provision), Telefónica requested the Administration to extend the duration of its spectrum licenses up to a maximum of 40 years.

In Germany, in the allocation procedure for the frequencies at 800 MHz, 1800 MHz and 2.6 GHz, which will partially expire at the end of 2025, the Bundesnetzagentur has submitted a position paper for consultation as a follow-up to the consultation of orientation points which were connected with an initial survey of demand. In the position paper, it considers a spectrum scarcity to be obvious and is considering an auction as the award format. In order to reflect the importance of the 800 MHz band for mobile coverage, the Bundesnetzagentur proposes a swap in the term of the frequencies to be awarded at 800 MHz with an equal amount of 900 MHz frequencies. The frequencies at 900 MHz, 1800 MHz and 2.6 GHz would then be auctioned off. The frequencies at 800 MHz would have a term until the end of 2033. Next steps in the spectrum allocation procedure in the form of cornerstones and a formal demand survey are expected in the first half of 2023.

In the UK, mobile spectrum licenses are generally indefinite in term, subject to an annual fee after a fixed period (usually 20 years) from the initial auction. There are no fee decisions now pending until 2033, when the fixed term for VMO2's 800 MHz licenses will expire.

With respect to Latin America:

In Brazil, the Agência Nacional de Telecomunicações ("ANATEL") approved on February 8, 2021, Resolution 741/2021 which sets the Regulation for the Adaptation of Fixed Commuted Telephony Service ("STFC") concessions. ANATEL has presented an estimated value for calculating the migration balancing from the concession to the authorization regime, which will be validated by the Federal Court of Accounts. There is a risk that consensus between the parties on the migration calculation may not be reached. In any case, if a decision is made by Telefónica not to migrate, the STFC concession held by Telefónica will remain in force until December 31, 2025. In addition, Resolution 744/2021 of April 8, 2021 (the "Continuity Regulation") establishes that, at the end of the life of the concession contracts, the transfer of the right of use of shared-use assets will be guaranteed under fair and reasonable economic conditions, in the event that the granting authority or the company that succeeds the provider wishes to make use of these assets to maintain the continuity of the provision of STFC under the public regime. In relation to the process that is being carried out before the Federal Court of Accounts, the technical area of the Court proposed the revision of the Continuity Regulation's terms so that it provides for the reversion, to the concessionaires, of the assets used in the provision of STFC. This proposal is still subject to deliberation by the Plenary of the Federal Court of Accounts.

In addition, on December 8, 2022, ANATEL revoked Telefónica's 450 MHz spectrum authorization (451-458 MHz and 461-468 MHz) covering the states of Alagoas, Ceará, Minas Gerais, Paraíba, Pernambuco Piauí, Rio Grande do Norte, Sergipe and part of São Paulo. The decision was motivated by the fact that Telefónica could not provide evidence of service activation in the 450 MHz band as a result of the unavailability of a 450 MHz devices ecosystem. The revocation of the spectrum license does not impact the services currently provided by Telefónica.

Furthermore, regarding the extension of the 850 MHz band authorizations, if the legal and regulatory requirements are met, ANATEL agreed to extend the current authorizations for the use of radio frequencies in Bands A and B, proposing their approval, on a primary basis, until November 29, 2028. However, specific conditions for renewal, including those related to the economic valuation criteria and obligations, were challenged by the affected service providers (including Telefónica). After ANATEL dismissed the appeals filed by the providers, ANATEL referred the case to the federal court of accounts of Brazil ("TCU"), and in September 2022, TCU decided that the possibility of

successive extensions brought by Law 13.879/19 should be considered as an exception, applicable only when certain requirements are met (art. 167 of Law 13.879/19 and article 12 of decree 10.402/20). Telefónica appealed that decision, defending the successive extension of licenses as a rule and not as an exception, in accordance with Law 13.879/19. Additionally, in August 2022, when deciding on an extension request made by the provider TIM for the 850 MHz, 900 MHz and 1.8 GHz bands, ANATEL issued a decision for the possibility of extending the 900 MHz and 1.8 GHz bands only until 2032, when the Agency intends to carry out a reforming action of these bands. This decision may impact Telefónica's extension requests for the aforementioned bands.

In Peru, an arbitration process was started by Telefónica, to challenge the decision adopted by the Ministry of Transportation and Communications ("MTC"), denying the renewal of concessions for the provision of fixed-line services, valid until 2027, which ended with a favorable award for Telefónica. The award recognizes that the methodology applied to assess compliance with the concession obligations in the concession renewal process was not in accordance with the provisions of the concession contract. The MTC, following this award, must issue a new regulation for renewals in a period of time yet to be determined. Nevertheless, Telefónica del Perú S.A.A. holds other concessions for the provision of fixed-line services that allow it to provide these services beyond 2027. The renewal of the 1900 MHz band in all of Peru, except for Lima and Callao, which expired in 2018, and of other licenses to offer telecommunications services were requested by the Group and a decision by the MTC is still pending. Nevertheless, these concessions are valid while the procedures are in progress.

In Colombia, in 2023, Telefonica will have to renew 30 MHz of spectrum in the AWS band. The spectrum renewal process has not been initiated.

In Argentina, in connection with Decree of Necessity and Urgency 690/2020 ("DNU 690/2020"), Telefónica de Argentina, S.A. and Telefónica Móviles Argentina, S.A. (collectively, "Telefónica Argentina") filed a lawsuit against the Argentine State, in relation to a series of contracts for licenses to provide services and spectrum use authorizations entered into between Telefónica Argentina and the Argentine State, including the licenses resulting from the 2014 spectrum auction. These contracts and their regulatory framework stated that the services provided by Telefónica Argentina were private and prices would be freely set by Telefónica Argentina. However, DNU 690/2020, by providing that the services will be "public services" and that prices will be regulated by the Argentine State, substantially modifies the legal status of those contracts, affecting the compliance with their obligations and substantially depriving Telefónica Argentina of essential rights derived from those contracts. The lawsuit filed by Telefónica Argentina was rejected in September 2021 and Telefónica Argentina appealed this decision. On December 17, 2021, the first instance ruling was revoked and the application of articles 1, 2, 3, 5 and 6 of DNU 690/2020 and Resolutions 1666/2020, 204/2021 and 1467/2020 (relating to the control of tariffs and the universal basic service) was suspended for six months or until the final decision is adopted. On June 10, 2022, the Federal Contentious Administrative Court extended the precautionary suspension of the effects of DNU 690/2020 for an additional six months in Telefónica's favor. On December 27, 2022, the Federal Contentious Administrative Court extended the precautionary suspension of the effects of DNU 690/2020 for another six months in Telefónica's favor. During this period, Telefónica Argentina will not be subject to the provisions contained in the DNU 690/2020 in relation to price and public service regulations.

In Ecuador, Telefónica will seek to renew in 2023 the concession contract that authorizes the provision of telecommunication services and includes the spectrum licenses (25 MHz in the 850 MHz band and 60 MHz in the 1900 MHz band).

During 2022, the Group's consolidated investment in spectrum acquisitions and renewals amounted to 173 million euros, mainly due to the acquisition of spectrum in Colombia (compared to 1,704 million euros in 2021, mainly due to the acquisition of spectrum in Brazil and the United Kingdom, and to 126 million euros in 2020). In the event that the licenses mentioned above are renewed or new spectrum is acquired, it would involve additional investments by Telefónica.

Further information on certain key regulatory matters affecting the Telefónica Group and the concessions and licenses of the Telefónica Group can be found in Appendix VI of the Consolidated Financial Statements.

Telefónica could be affected by disruptions in the supply chain or international trade restrictions, or by the dependency on its suppliers.

The existence of critical suppliers in Telefónica's supply chain, especially in areas such as network infrastructure, information systems or handsets with a high concentration in a small number of suppliers, poses risks that may affect Telefónica's operations. In the event that a participant in the supply chain engages in practices that do not

meet acceptable standards or does not meet Telefónica's performance expectations (including delays in the completion of projects or deliveries, poor-quality execution, cost deviations or reduced output due to the suppliers own stock shortfalls), this may harm Telefónica's reputation, or otherwise adversely affect its business, financial condition, results of operations and/or cash flows. Further, in certain countries, Telefónica may be exposed to labor contingencies in connection with the employees of such suppliers.

As of December 31, 2022, the Group depended on three handset suppliers (none of them located in China) and seven network infrastructure suppliers (two of them located in China), which, together, accounted for 81% and 80%, respectively, of the aggregate value of contracts awarded in the year ended December 31, 2022 to handset suppliers and network infrastructure suppliers, respectively. One of the handset suppliers represented 40% of the aggregate value of contracts awarded in the year ended December 31, 2022 to handset suppliers.

If suppliers cannot supply their products to the Telefónica Group within the agreed deadlines or such products and services do not meet the Group's requirements, this could hinder the deployment and expansion plans of the network. This could in certain cases affect Telefónica's compliance with the terms and conditions of the licenses under which it operates, or otherwise adversely affect the business and operating results of the Telefónica Group. In addition, the possible adoption of new protectionist measures in certain parts of the world, including as a result of trade tensions between the United States and China, and/or the adoption of lockdown or other restrictive measures as a result of the COVID-19 pandemic or any other crisis or pandemic, as well as those derived from geopolitical tensions such as the current war in Ukraine, could disrupt global supply chains or may have an adverse impact on certain of Telefónica's suppliers and other players in the industry. The semiconductor industry in particular is facing various challenges, as a result mainly of supply problems at a global level, which in turn is affecting multiple sectors (including technology) through delivery delays and price increases, which could affect the Telefónica Group or others who are relevant to its business, including its customers, suppliers and partners. During 2020, 2021 and 2022 a specific monitoring has been carried out and action plans have been developed by the Group with respect to the supply chain challenges resulting from the COVID-19 pandemic, the armed conflict in Ukraine as well as the potential discontinuation of use of some suppliers as a result of tensions between the United States and China.

The imposition of trade restrictions and any disruptions in the supply chain, such as those related to international transport, could result in higher costs and lower margins or affect the ability of the Telefónica Group to offer its products and services and could adversely affect the Group's business, financial condition, results of operations and/or cash flows.

Telefónica operates in a sector characterized by rapid technological changes and it may not be able to anticipate or adapt to such changes or select the right investments to make.

The pace of innovation and Telefónica's ability to keep up with its competitors is a critical issue in a sector so affected by technology such as telecommunications. In this sense, significant additional investments will be needed in new high-capacity network infrastructures to enable Telefónica to offer the features that new services will demand, through the development of technologies such as 5G or fiber.

New products and technologies are constantly emerging that can render products and services offered by the Telefónica Group, as well as its technology, obsolete. In addition, the explosion of the digital market and the entrance of new players in the communications market, such as mobile network virtual operators ("MNVOs"), internet companies, technology companies or device manufacturers, could result in a loss of value for certain of the Group's assets, affect the generation of revenues, or otherwise cause Telefónica to have to update its business model. In this respect, revenues from traditional voice businesses are shrinking, while new sources of revenues are increasingly derived from connectivity and digital services. Examples of these services include video, Internet of Things (IoT), cybersecurity, big data and cloud services.

One of the technologies currently being developed by telecommunications operators, including Telefónica (in Spain and Latin America), is the new FTTx type networks which allow the offering of broadband accesses over fiber optics with high performance. However, the deployment of such networks, in which the copper of the access loop is totally or partially replaced by fiber, requires high levels of investment. As of December 31, 2022, in Spain, fiber coverage reached 28.0 million premises. There is a growing demand for the services that these new networks can offer to the end customer. However, the high levels of investment required by these networks result in the need to continuously consider the expected return on investment, and no assurance can be given that these investments will be profitable.

In addition, the ability of the Telefónica Group's IT systems (operational and backup) to adequately support and evolve to respond to Telefónica's operating requirements is a key factor to consider in the commercial development,

customer satisfaction and business efficiency of the Telefónica Group. While automation and other digital processes may lead to significant cost savings and efficiency gains, there are also significant risks associated with such transformation processes. Any failure by the Telefónica Group to develop or implement IT systems that adequately support and respond to the Group's evolving operating requirements could have an adverse effect on the Group's business, financial condition, results of operations and/or cash flows.

The changes outlined above force Telefónica to continuously invest in the development of new products, technology and services to continue to compete effectively with current or future competitors. Any such investment may reduce the Group's profit and margins and may not lead to the development or commercialization of successful new products or services. To contextualize the Group's total research and development effort, the total expenditure in 2022 was 656 million euros (835 million euros in 2021, with the year-on-year change being impacted by deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021, and 959 million euros in 2020) representing 1.6% of the Group's revenues (2.1% and 2.2% in 2021 and 2020, respectively). These figures have been calculated using the guidelines established in the Organization for Economic Co-operation and Development ("OECD") manual.

If Telefónica is not able to anticipate and adapt to the technological changes and trends in the sector, or to properly select the investments to be made, this could negatively affect the Group's business, financial condition, results of operations and/or cash flows.

The Telefónica Group's strategy, which is focused on driving new digital businesses and providing data-based services, involves exposure to risks and uncertainties arising from data privacy regulation.

The Telefónica Group's commercial portfolio includes products and/or services which are based on the use, standardization and analysis of data, as well as the deployment of advanced networks and the promotion of new technologies related to Big Data, cloud computing, cybersecurity, Artificial Intelligence and IoT.

The large amount of information and data that is processed throughout the Group (related to approximately 383.1 million accesses associated with telecommunications services, digital products and services and Pay TV as of December 31, 2022 and an average number of employees of 102,563 in 2022), increases the challenges of complying with privacy regulations. Moreover, there is a risk that measures adopted in response to these regulations may stifle innovation. Conversely, the Group's efforts to promote innovation may result in potential increased compliance privacy risks and, where applicable, costs.

Telefónica is subject to Regulation (EU) 2016/679 of the European Parliament and Council of April 2016, on the protection of natural persons with regard to the processing of personal data and on the free movement of such data ("GDPR"), whose content has become the common standard for all countries where the Telefónica Group operates. In addition, progress continues to be made on the proposal for a future European regulation concerning the respect for privacy and protection of personal data in electronic communications ("e-Privacy Regulation"), which would repeal Directive 2002/58/EC. If approved, this proposal could establish additional and more restrictive rules than those established in the GDPR, with the consequent increase in the risks and costs that this could entail for Telefónica.

Moreover, considering that the Telefónica Group operates its business on a global scale, it frequently carries out international data transfers concerning its customers, users, suppliers, employees and other data subjects to countries outside the EEA that have not been declared to have an adequate level of data protection by the European Commission, either directly or through third parties. In this context, it is particularly relevant to have the necessary controls in place to ensure that such international data transfers are carried out in accordance with the GDPR, in an environment marked by uncertainty on this issue as to the adequate and effective measures to mitigate such risks.

One of the relevant contractual measures to ensure the lawfulness of international data transfers to any country outside the EEA not found by the European Commission to have an adequate level of data protection, is the signing, between the data importer and the data exporter, of the new standard contractual clauses ("SCC") approved by the European Commission according to Implementing Decision (EU) 2021/914 of June 4, 2021. These new SCC, which entered into force on June 27, 2021, repeal the old SCC and include a modular set of clauses for their application according to the data processing role of both the exporter and the importer. Furthermore, the entry into force of the new SCC obliges companies that are going to use them for their transfers to assess and adopt additional measures deemed appropriate for the due protection of the data transferred to the third country. This is because SCC, in general, according to the Court of Justice of the European Union (CJEU), are not sufficient for this purpose, as the public authorities of the third country, in accordance with their local regulations, may have the power

to access or request access to the data transferred. The additional measures to be adopted are mainly technical such as data encryption and derive in particular from the impact analysis of each transfer and the country of destination, all following the guidelines issued by the European Data Protection Board in its Recommendations 01/2020. Furthermore, the adoption of the new SCC by the European Commission as the main legal tool for transfers, obliges companies to replace the old SCC, as the old SCC ceased to be legally valid at the end of 2022 in accordance with the aforementioned Implementing Decision. The implementation of the new SCC and their module structure and dispositive parts, which need to be negotiated between data exporters and importers, the obligation to assess and analyze each international transfer, the changing nature of the local regulations of the countries of destination, as well as the obligation to renew all agreements that include the old SCC, pose a challenge for the Group and, with it, a potential risk of non-compliance in the performance of international data transfers in accordance with the GDPR.

With regard to the international data transfer to the United States of America, on October 7, 2022, the U.S. President signed an executive order directing the steps that the United States will take to implement the U.S. commitments to improve the European Union–U.S. Data Privacy Framework in light of the judgment of the CJEU C-311/18. In connection with this U.S. initiative, the European Commission published in December 2022 a draft adequacy decision that would facilitate the transfer of data to the United States of America, which, like its predecessors, the International Safe Harbor Privacy Principles and the EU-U.S. Privacy Shield, is based on a self-regulatory approach, whereby U.S. companies that undertake to comply with the principles set out in the Privacy Framework will be able to self-certify as "adequate undertakings". They will thus be able to import data from the EU to the U.S. if they commit to providing an adequate level of protection to the data transferred.

While this represents an improvement in the regulatory landscape for international data transfers and the risks associated with them, the approval of this new adequacy decision for the United States is subject to the non-binding review by the European Data Protection Committee and the Civil Liberties Committee of the European Parliament, as well as the mandatory and binding approval by the Member States in the Council, which is not expected to occur until mid-2023.

In addition, the United Kingdom's exit from the European Union on January 1, 2021 means that the Group must monitor how its operations and business in the United Kingdom are affected in terms of applicable privacy regulations and, specifically, the flow of data to and from the United Kingdom. The European Commission declared the United Kingdom as a country with an adequate level of data protection according to the Adequacy Decision of June 28, 2021. Accordingly, entities that transfer data between both territories will not be required to adopt additional tools or measures for international transfers. The Adequacy Decision establishes an initial period of validity of four years, which may be extended only if the United Kingdom demonstrates that it continues to ensure an adequate level of data protection. In this regard, since European Union regulations no longer apply in the United Kingdom, the UK government has published a draft reform of its local privacy and data protection regulations in June 2022, which, if it finally passes through parliamentary procedures and is approved, aims to update these regulations to address new technological challenges and business opportunities in the use of data. The result and approval of this amendment could impact the Telefónica Group's business in the United Kingdom and the aforementioned international data transfers to and from the United Kingdom, either because additional regulatory restrictions or impositions are imposed that reduce the capacity for innovation and the development of new services and products, or because the European Union authorities consider that the United Kingdom is no longer a country with an adequate level of data protection, in which case the Telefónica Group may face similar challenges and risks as it is currently facing with respect to data transfers to the United States or other territories not declared as having an adequate level of protection.

In Latin America, Law No. 13,709 in Brazil imposes standards and obligations similar to those required by the GDPR, including a sanctioning regime which is in force from August 2021, with fines for non-compliance of up to 2% of the Group's income in Brazil in the last financial year subject to a limit of 50 million Brazilian reais (approximately 9.1 million euros based on the exchange rate as of December 31, 2022) per infraction which may increase compliance risks and costs. In addition, in 2022 the Brazilian data protection authority, Autoridade Nacional de Proteção de Dados (ANPD), became an independent agency not linked to the presidency of the Republic, thus providing it with additional autonomy to develop its control and supervision functions.

Furthermore, in Ecuador, the Organic Law on Data Protection has entered into force, aligned with the principles of the European GDPR, although the effectiveness of the sanctioning regime is postponed for a two-year adaptation period which ends in 2023. In addition, Argentina has ratified Convention 108+, which is an international treaty of the Council of Europe which is open to accession by any state outside Europe, and which regulates the protection of the rights of individuals with regard to the automated processing of their data, in a very similar way to the

protection granted by virtue of the GDPR. Likewise, in Chile and other territories in the region where Telefónica operates, there are regulatory proposals to bring regulation more in line with the provisions set forth in the GDPR, which may increase compliance risks and costs.

Data privacy protection requires careful design of products and services, as well as robust internal procedures and rules that can be adapted to regulatory changes where necessary, all of which entails compliance risk. Failure to maintain adequate data security and to comply with any relevant legal requirements could result in the imposition of significant penalties, damage to the Group's reputation and the loss of trust of customers and users.

Telefónica's reputation depends to a large extent on the digital trust it is able to generate among its customers and other stakeholders. In this regard, in addition to any reputational consequences, it is important to note that, in the European Union, very serious breaches of the GDPR may entail the imposition of administrative fines of up to the larger of 20 million euros or 4% of the infringing company's overall total annual revenue for the previous financial year. Furthermore, once it is approved, the e-Privacy Regulation may set forth sanctions for breaches of it similar to those provided for in the GDPR.

Any of the foregoing could have an adverse effect on the business, financial condition, results of operations and/or cash flows of the Group.

Telefónica may not anticipate or adapt in a timely manner to changing customer demands and/or new ethical or social standards, which could adversely affect Telefónica's business and reputation.

To maintain and improve its position in the market vis-à-vis its competitors, it is vital that Telefónica: (i) anticipates and adapts to the evolving needs and demands of its customers, and (ii) avoids commercial or other actions or policies that may generate a negative perception of the Group or the products and services it offers, or that may have or be perceived to have a negative social impact. In addition to harming Telefónica's reputation, such actions could also result in fines and sanctions.

In order to respond to changing customer demands, Telefónica needs to adapt both (i) its communication networks and (ii) its offering of digital services.

The networks, which had historically focused on voice transmission, are evolving into increasingly flexible, dynamic and secure data networks, replacing, for example, old copper telecommunications networks with new technologies such as fiber optics, which facilitate the absorption of the exponential growth in the volume of data demanded by the Group's customers.

In relation to digital services, customers require an increasingly digital and personalized experience, as well as a continuous evolution of the Group's product and service offering. In this sense, new services such as "Smart Wi-Fi", "Connected Car", "Smart Cities", "Smart Agriculture" and "Smart Metering" which facilitate certain aspects of the Group's customers' digital lives, are being developed. Furthermore, new solutions for greater automation in commercial services and in the provision of the Group's services are being developed, through new apps and online platforms that facilitate access to services and content, such as new video platforms that offer both traditional Pay TV, video on demand or multi-device access. However, there can be no assurance that these and other efforts will be successful. For example, if streaming television services, such as Netflix or others, become the principal way television is consumed to the detriment of the Group's Pay TV service, the Group's revenues and margins could be affected.

In the development of all these initiatives it is also necessary to take into account several factors: firstly, there is a growing social and regulatory demand for companies to behave in a socially responsible manner, and, in addition, the Group's customers are increasingly interacting through online communication channels, such as social networks, in which they express this demand. Telefónica's ability to attract and retain clients depends on their perceptions regarding the Group's reputation and behavior. The risks associated with potential damage to a brand's reputation have become more relevant, especially due to the impact that the publication of news through social networks can have.

If Telefónica is not able to anticipate or adapt to the evolving needs and demands of its customers or avoid inappropriate actions, its reputation could be adversely affected, or it could otherwise have an adverse effect on the business, financial condition, results of operations and/or cash flows of the Group.

Operational Risks.

Information technology is key to the Group's business and is subject to cybersecurity risks.

The risks derived from cybersecurity are among the Group's most relevant risks due to the importance of information technology to its ability to successfully conduct operations. Despite advances in the modernization of the network and the replacement of legacy systems in need of technological renewal, the Group operates in an environment increasingly prone to cyber-threats and all of its products and services are intrinsically dependent on information technology systems and platforms that are susceptible to cyberattacks. Successful cyberattacks could prevent the effective provision, operation and commercialization of products and services in addition to affecting their use by customers. Therefore, it is necessary to continue to identify and remedy any technical vulnerabilities and weaknesses in the Group's operating processes, as well as to strengthen its capabilities to detect, react and recover from incidents. This includes the need to strengthen security controls in the supply chain (for example, by focusing on the security measures adopted by the Group's providers and other third parties), as well as to ensure the security of the services in the cloud.

Telecommunications companies worldwide face continuously increasing cybersecurity threats as businesses become increasingly digital and dependent on telecommunications, computer networks and cloud computing technologies. As a result of the circumstances brought by the COVID pandemic, remote access and teleworking of employees and collaborators has spread and is now a common practice, increasing the use of cloud services; thus, the risks associated with their use, and forcing companies to review the security controls beyond the perimeter of the corporate network. Further, the Telefónica Group is aware of the possible cybersecurity risks arising from the conflict in Ukraine, monitoring cyberattacks that may affect our infrastructure, and maintaining contact with national and international organizations to obtain cyberintelligence information, without having so far detected a significant increase in attacks in our perimeter compared to other previous periods, though this may change in the future. Cybersecurity threats may include gaining unauthorized access to the Group's systems or propagating computer viruses or malicious software, to misappropriate sensitive information like customer data or disrupt the Group's operations. In addition, traditional security threats, such as theft of laptop computers, data devices and mobile phones may also affect the Group along with the possibility that the Group's employees or other persons may have access to the Group's systems and leak data and/or take actions that affect the Group's networks or otherwise adversely affect the Group or its ability to adequately process internal information or result in regulatory penalties.

In particular, in the past three years, the Group has suffered several cybersecurity incidents. Attacks during this period include (i) intrusion attempts (direct or phishing), exploitation of vulnerabilities and corporate credentials being compromised; (ii) Distributed Denial of Service (DDoS) attacks, using massive volumes of Internet traffic that saturate the service; and (iii) exploitation of vulnerabilities to carry out fraud through online channels, usually through the subscription of services without paying for them. None of these incidents had material consequences for the Telefónica Group, but this may change in the future.

Although Telefónica seeks to manage these risks by adopting technical and organizational measures as defined in its digital security strategy, such as the use of early vulnerabilities detection, access control, log review of critical systems and network segregation, as well as the deployment of firewalls, intrusion-prevention systems, virus scanners and backup systems, it can provide no assurance that such measures are sufficient to avoid or fully mitigate such incidents. Therefore, the Telefónica Group has insurance policies in place, which could cover, subject to the policies terms, conditions, exclusions, limits and sublimits of indemnity, and applicable deductibles, certain losses arising out of these types of incidents. To date, the insurance policies in place have covered some incidents of this nature, however due to the potential severity and uncertainty about the evolution of the aforementioned events, these policies may not be sufficient to cover all possible losses arising out of these risks.

Climate change, natural disasters and other factors beyond the Group's control may result in physical damage to our technical infrastructure that may cause unanticipated network or service interruptions or quality loss or otherwise affect the Group's business.

Climate change, natural disasters and other factors beyond the Group's control, such as system failures, lack of electric supply, network failures, hardware or software failures, theft of network elements or cyber-attacks can damage our infrastructure and affect the quality of, or cause interruption to, the provision of the services of the Telefónica Group.

Further, changes in temperature and precipitation patterns associated with climate change may increase the energy consumption of telecommunications networks or cause service disruption due to extreme temperature waves, floods or extreme weather events. These changes may cause increases in the price of electricity due to, for example, reduction in hydraulic generation as a result of recurrent droughts. Further, as a result of global commitments to tackle climate change, new carbon dioxide taxes may be imposed and could affect, directly or indirectly, Telefónica, and may have a negative impact on the Group's operations results. Telefónica analyses these risks in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures ("TCFD").

Network or service interruptions or quality loss or climate-related risks could cause customer dissatisfaction, a reduction in revenues and traffic, the realization of expensive repairs, the imposition of sanctions or other measures by regulatory bodies, and damage to the image and reputation of the Telefónica Group, or could otherwise have an adverse effect on the business, financial condition, results of operations and/or cash flows of the Group.

Financial Risks.

Worsening of the economic and political environment could negatively affect Telefónica's business.

Telefónica's international presence enables the diversification of its activities across countries and regions, but it exposes Telefónica to diverse legislation, as well as to the political and economic environments of the countries in which it operates. Any adverse developments in this regard, including inflationary pressures, rapid normalization of monetary policy, exchange rate or sovereign-risk fluctuations, as well as growing geopolitical tensions, may adversely affect Telefónica's business, financial position, debt management, cash flows and results of operations and/or the performance of some or all of the Group's financial indicators.

Russia's invasion of Ukraine opened a period that has been characterized by extraordinary uncertainty and the simultaneous concurrence of multiple negative shocks. Inflationary pressures, arising from bottlenecks associated with the rapid recovery from the pandemic, have been exacerbated by two phenomena that are closely related to the Russian invasion; i) the largest energy crisis since 1970s (17.7% of GDP spent on energy in 2022 vs. 10.2% in 2019 in OECD countries) and ii) the highest increase in world food prices in recent history, resulting in inflation rates not seen in the last 40 years. The persistence of shocks led inflationary pressures to become more broad-based, with higher costs increasingly being passed through to the final prices of other goods and services, leading to strong response from central banks (interest rate hikes and liquidity withdrawal) and a significant loss of consumer purchasing power. Further, it is likely that the transmission of past increases in energy prices and other imported goods to final prices has not yet been completed, which will continue to put some upward pressure in the short term. These inflationary pressures have also been contributed to by the increasing wage demands that have been observed at the international level, reflecting both the strength of labor markets, especially those of the main developed economies, and the prevalence (although to a lesser extent than in the past) of wage indexation mechanisms. Moreover, there is a risk that global liquidity reduction and high interest rates could generate greater financial volatility leading to episodes of stress, such as those observed in the United Kingdom, especially if inflation turns out to be more persistent than previously expected. Also, premature monetary easing by central banks could lead to inflationary rebound that could generate a new period of stagflation as in the 1970s. Going forward, elements that could worsen the effects of the current situation include the escalation of the armed conflict and potential disruptions to energy supply and possible further increases in commodity prices, with a potential de-anchoring of inflation expectations and higher-than-expected wage demands, prolonging and amplifying the inflation-recession scenario. As a result of the above, economic growth is expected to decelerate further in the near term, with a significant risk of recession in many parts of the world.

So far, the main European countries where the Group operates have been affected through the price channel (higher commodity prices, intermediate inputs and salary costs, among others), as their trade and financial exposure is limited. However, in Europe there is concern about the energy situation for both this and next winter if climate conditions worsen in the face of a possible gas shortage. Latin America could be affected by lower external demand associated with slower global growth, deteriorating terms of trade and tighter financial conditions.

As of December 31, 2022, the contribution of each segment to Telefónica Group's total assets was as follows: Telefónica Spain 25.5% (22.9% as of December 31, 2021), VMO2 9.8 % (11.1% as of December 31, 2021), Telefónica Germany 17.5% (18.3 % as of December 31, 2021), Telefónica Brazil 22.7% (19.7% as of December 31, 2021) and Telefónica Hispam 14.5% (14.3% as of December 31, 2021). Part of the Group's assets are located in countries that do not have an investment grade credit rating (in order of importance, Brazil, Argentina, Ecuador and Venezuela). Likewise, Venezuela and Argentina are considered countries with hyperinflationary economies in 2022 and 2021.

The main risks are detailed by geography below:

In Europe, there are several risks of an economic and political nature. First, the development of the armed conflict between Russia and Ukraine constitutes the main risk factor on growth and inflation prospects. Any worsening of the supply of gas, oil or food (such as the total shutdown of flows from Russia) would have a negative impact on their prices with a consequent impact on disposable income. In the medium term, this could lead to a stronger pass-through to final consumer prices, which could result in higher-than-expected wage increases, a persistent rise in

inflation expectations and an even tighter monetary policy. All of the above would be added to the economic risks existing prior to the conflict, such as the consequences of an increase in the cost of financing conditions, both for the private and public sectors (more accelerated than expected a few months ago) which could trigger episodes of financial stress. Finally, there is a risk of financial fragmentation in the transmission of monetary policy in the Eurozone, which means that interest rates may react differently in different countries across the Eurozone, leading to differences in the yields of bonds issued by peripheral countries (such as Spain) and those issued by central countries, which would make access to credit more difficult for the former.

- *Spain*: there are several local sources of risks. One of them stems from the risk that supply disruptions will have a more persistent negative economic impact than expected, and high commodity prices and/or the emergence of second round effects, prolonging the inflationary episode with a deeper impact on household income. Secondly, and although the disbursement of European funds (NGEU) appears to be gaining traction, further delays or even designing flaws could limit their final impact on GDP growth and employment. In addition, as one of the most open countries in the world, from a commercial point of view, being among the top ten countries in respect of capital outflows and inflows globally, the rise of protectionism and trade restrictions could have significant implications. Lastly, the impact of rising interest rates could be a source of financial stress due to high public indebtedness and lead to a possible correction in the real estate market.

- *Germany*: in the short term, the main sources of risk relate to the country's energy supply (as 35% of energy came from Russia before the conflict) and the prolongation of bottlenecks in the supply of raw materials and intermediate goods in the manufacturing sector, which could continue to limit the expansion of economic activity. Among the risks associated with energy supply, there is a risk of unusually low temperatures that could lead to higher gas consumption requirements and may affect the ability to secure necessary gas supplies. On the other hand, there is concern that higher-than-expected wage growth could lead to a stronger inflationary cycle. As for the medium to long term, there is a risk that a potential escalation of geopolitical tensions could reduce international trade, with a consequent impact on the country's potential growth, which is dependent on exports. In addition, long-term challenges remain, such as the aging of the population.

- *United Kingdom*: an intensification of inflationary pressures could weigh on consumption and further depress economic growth. In particular, there is a concern that wage growth could lead to a further increase in the prices of goods and services, preventing inflation rates from normalizing as quickly as anticipated. On the other hand, although the UK economy has few direct trade links with Russia and Ukraine, it is vulnerable to developments in the global energy market as it is the second European economy with the largest share of gas in the energy mix. In addition, Britain imports gas and electricity from the European continent during the coldest months, so a confluence of an abnormally cold winter and a cut-off of Russian gas to Europe could lead to energy shortages. On the political front, recent social polarization could detract political capital from the incoming executive, becoming another source of uncertainty in the short to medium term. Finally, the formal exit of the United Kingdom from the European Union on December 31, 2020 (Brexit) has created new barriers to trade in goods and services, mobility and cross-border exchanges, which will entail an economic adjustment in the medium term. Northern Ireland's post-Brexit status and the difficulties associated with the implementation of the Northern Ireland Protocol will continue to be a source of tension.

In Latin America, the exchange risk is moderate but may increase in the future. The end of electoral events and rapid central bank actions to contain inflation may, at least partially, limit the impact of external risks (global trade tensions, abrupt movements in commodity prices, concerns about global growth, tightening U.S. monetary policy and financial imbalances in China) and internal risks (managing the monetary normalization and the possible underlying fiscal deterioration).

- *Brazil*: fiscal sustainability remains the main domestic risk, especially considering the recent approval of extraordinary spending of ~2% of GDP by 2023. The new administration's initial signals are towards greater economic interventionism, the repeal of the spending cap and the review of the privatization agenda. Political negotiations could be affected by social polarization. Uncertainty now centers on the unknown economic guidelines for the coming years of the new government, including the definition of a new fiscal rule, expenditure increase and the economic reform agenda. Given this context, domestic asset prices, including the exchange rate, continue to show high volatility. In addition, higher fiscal risks have also affected inflation expectations, which have increased since December 2022, remaining above the targets for the monetary policy's relevant horizon (2023 and 2024). In this regard, there is a risk that interest rates will be above the levels expected a few months ago, which would imply a downward bias for GDP growth in 2023.

- *Argentina*: macroeconomic and exchange rate risks remain high. The main domestic challenges are achieving political consensus to reduce the public deficit and rebuilding international reserves in a context of high inflation, in order to allow the country to meet the targets agreed with the International Monetary Fund. On the external front, a global slowdown resulting in lower demand for exported products and their prices would imply lower hard currency inflows, which would increase vulnerability to volatility in international financial markets. Finally, the application of unorthodox price control measures and increasing foreign exchange restrictions could affect Telefónica's profitability.

- *Chile, Colombia and Peru*: these countries are exposed not only to changes in the global economy, given their vulnerability and exposure to changes in commodity prices, but also to tightening of global financial conditions. On the domestic side, existing political instability and the possibility of further social unrest and the resurgence of populism could have a negative impact in both the short and medium term. In this regard, measures that result in excessive growth in public spending that jeopardize fiscal balance could have a negative impact on sovereign credit ratings, further deteriorating local financing conditions. High inflation threatens to be more persistent than expected, which would limit central banks' ability to respond to an abrupt drop in activity levels and would also increase the risk on financial stability. In political terms, uncertainty prevails both in Chile, due to the new constituent process underway, and in Colombia, due to the impact that the tax and pension reforms promoted by the President may have on private investment. In Peru, political instability could continue despite the installation of the new government due to the lack of support both in chambers and at the grassroots level.

As discussed above, the countries where the Group operates are generally facing significant economic uncertainties and, in some cases, political uncertainties. The worsening of the economic and political environment in any of the countries where Telefónica operates may materially adversely affect the Group's business, financial condition, results of operations and/or cash flows.

The Group has and, in the future, could experience impairment of goodwill, investments accounted for by the equity method, deferred tax assets or other assets.

In accordance with current accounting standards, the Telefónica Group reviews on an annual basis, or more frequently when the circumstances require it, the need to introduce changes to the book value of its goodwill (which as of December 31, 2022, represented 16.8% of the Group's total assets), investments accounted for by the equity method (which represented 10.6% of the Group's total assets as of December 31, 2022), deferred tax assets (which as of December 31, 2022, represented 4.5% of the Group's total assets), or other assets, such as intangible assets (which represented 11.0% of the Group's total assets as of December 31, 2022), and property, plant and equipment (which represented 21.6% of the Group's total assets as of December 31, 2022). In the case of goodwill, the potential loss of value is determined by the analysis of the recoverable value of the cash-generating unit (or group of cash-generating units) to which the goodwill is allocated at the time it is originated, and such calculation requires significant assumptions and judgment. In 2022 impairment losses in other assets of Telefónica Argentina were recognized for a total of 77 million euros. In 2021 impairment losses in the goodwill of Telefónica del Perú were recognized for a total of 393 million euros and in 2020 impairment losses in the goodwill and other assets of Telefónica Argentina were recognized for a total of 894 million euros.

In addition, Telefónica may not be able to realize deferred tax assets on its statement of financial position to offset future taxable income. The recoverability of deferred tax assets depends on the Group's ability to generate taxable income over the period for which the deferred tax assets remain deductible. If Telefónica believes it is unable to utilize its deferred tax assets during the applicable period, it may be required to record an impairment against them resulting in a non-cash charge on the income statement. By way of example, in 2021 deferred tax assets corresponding to the tax Group in Spain amounting to 294 million euros were derecognized (101 million euros in 2020).

Further impairments of goodwill, deferred tax assets or other assets may occur in the future which may materially adversely affect the Group's business, financial condition, results of operations and/or cash flows.

The Group faces risks relating to its levels of financial indebtedness, the Group's ability to finance itself, and its ability to carry out its business plan.

The operation, expansion and improvement of the Telefónica Group's networks, the development and distribution of the Telefónica Group's services and products, the implementation of Telefónica's strategic plan and the development of new technologies, the renewal of licenses and the expansion of the Telefónica Group's business in countries where it operates, may require a substantial amount of financing.

The Telefónica Group is a relevant and frequent issuer of debt in the capital markets. As of December 31, 2022, the Group's gross financial debt amounted to 39,079 million euros (42,295 million euros as of December 31, 2021), and the Group's net financial debt amounted to 26,687 million euros (26,086 million euros as of December 31, 2021). As of December 31, 2022, the average maturity of the debt was 13.1 years (13.6 years as of December 31, 2021), including undrawn committed credit facilities.

A decrease in the liquidity of Telefónica, or a difficulty in refinancing maturing debt or raising new funds as debt or equity could force Telefónica to use resources allocated to investments or other commitments to pay its financial debt, which could have a negative effect on the Group's business, financial condition, results of operations and/or cash flows.

Funding could be more difficult and costly to obtain in the event of a deterioration of conditions in the international or local financial markets due, for example, to monetary policies set by central banks, including increases in interest rates and/or decreases in the supply of credit, increasing global political and commercial uncertainty and oil price instability, or if there is an eventual deterioration in the solvency or operating performance of Telefónica.

As of December 31, 2022, the Group's gross financial debt scheduled to mature in 2023 amounted to 4,020 million euros, and gross financial debt scheduled to mature in 2024 amounted to 2,010 million euros.

In accordance with its liquidity policy, Telefónica has covered its gross debt maturities for the next 12 months with cash and credit lines available as of December 31, 2022. As of December 31, 2022, the Telefónica Group had undrawn committed credit facilities arranged with banks for an amount of 11,737 million euros (11,434 million euros of which were due to expire in more than 12 months). Liquidity could be affected if market conditions make it difficult to renew undrawn credit lines. As of December 31, 2022, 2.6% of the aggregate undrawn amount under credit lines was scheduled to expire prior to December 31, 2023.

In addition, given the interrelation between economic growth and financial stability, the materialization of any of the economic, political and exchange rate risks referred to above could adversely impact the availability and cost of Telefónica's financing and its liquidity strategy. This in turn could have a negative effect on the Group's business, financial condition, results of operations and/or cash flows.

Finally, any downgrade in the Group's credit ratings may lead to an increase in the Group's borrowing costs and could also limit its ability to access credit markets.

The Group's financial condition and results of operations may be adversely affected if it does not effectively manage its exposure to interest rates or foreign currency exchange rates.

Interest rate risk arises primarily in connection with changes in interest rates affecting: (i) financial expenses on floating-rate debt (or short-term debt likely to be renewed); (ii) the value of long-term liabilities at fixed interest rates; and (iii) financial expenses and principal payments of inflation-linked financial instruments, considering interest rate risk as the impact of changes in inflation rates.

In nominal terms, as of December 31, 2022, 88% of the Group's net financial debt had its interest rate set at fixed interest rates for periods of more than one year. The effective cost of interest payments for the last 12 months was 3.86% as of December 31, 2022 compared to 3.77% as of December, 2021. To illustrate the sensitivity of financial expenses to variations in short-term interest rates as of December 31, 2022: (i) a 100 basis point increase in interest rates in all currencies in which Telefónica had a financial position at that date would have led to an increase in financial expenses of 34 million euros, whereas (ii) a 100 basis point decrease in interest rates in all currencies (even if negative rates are reached), would have led to a reduction in financial expenses of 34 million euros. For the preparation of these calculations, a constant position equivalent to the position at that date is assumed of net financial debt.

Exchange rate risk arises primarily from: (i) Telefónica's international presence, through its investments and businesses in countries that use currencies other than the euro (primarily in Latin America and the United Kingdom); (ii) debt denominated in currencies other than that of the country where the business is conducted or the home country of the company incurring such debt; and (iii) trade receivables or payables in a foreign currency to the currency of the company with which the transaction was registered. According to the Group's calculations, the impact on results, and specifically on net exchange differences, due to a 10% depreciation of Latin American currencies against the U.S. dollar and a 10% depreciation of the rest of the currencies to which the Group is most exposed, against the euro would result in exchange gains of 11 million euros as of December 31, 2022 and a 10% appreciation of Latin American currencies against the U.S. dollar and a 10% appreciation of the rest of the

currencies to which the Group is most exposed, would result in exchange losses of 11 million euros as of December 31, 2022. These calculations have been made assuming a constant currency position with an impact on profit or loss for 2022 taking into account derivative instruments in place.

In 2022, the evolution of exchange rates positively impacted the Group's results, increasing the year-on-year growth of the Group's consolidated revenues and OIBDA by an estimated 4.5 percentage points and 3.0 percentage points, respectively, mainly due to the evolution of the Brazilian real (negative impact of 2.3 percentage points and 2.7 percentage points, respectively, in 2021). Furthermore, translation differences as of December 31, 2022 had a positive impact on the Group's equity of 1,169 million euros (4,088 million euros as of December 31, 2021).

The Telefónica Group uses a variety of strategies to manage this risk including, among others, the use of financial derivatives, which are also exposed to risk, including counterparty risk. The Group's risk management strategies may be ineffective, which could adversely affect the Group's business, financial condition, results of operations and/or cash flows. If the Group does not effectively manage its exposure to foreign currency exchange rates or interest rates, it may adversely affect its business, financial condition, results of operations and/or cash flows.

Legal and Compliance Risks.

Telefónica and Telefónica Group companies are party to lawsuits, antitrust, tax claims and other legal proceedings.

Telefónica and Telefónica Group companies operate in highly regulated sectors and are and may in the future be party to lawsuits, tax claims, antitrust and other legal proceedings in the ordinary course of their businesses, the outcome of which is unpredictable.

The Telefónica Group is subject to regular reviews, tests and audits by tax authorities regarding taxes in the jurisdictions in which it operates and is a party and may be a party to certain judicial tax proceedings. In particular, the Telefónica Group is currently party to certain tax and regulatory proceedings in Brazil, primarily relating to the ICMS (a Brazilian tax on telecommunication services) and the corporate tax.

Telefónica Brazil maintained provisions for tax contingencies amounting to 446 million euros and provisions for regulatory contingencies amounting to 336 million euros as of December 31, 2022. In addition, Telefónica Brazil faces possible tax contingencies for which no provisions are made (see "Item 8. Financial Information—Consolidated Financial Statement—Tax Proceedings—Telefónica Brazil"). Further, the Group makes estimates for its tax liabilities that the Group considers reasonable, but if a tax authority disagrees, the Group could face additional tax liability, including interest and penalties. There can be no guarantee that any payments related to such contingencies or in excess of our estimates will not have a significant adverse effect on the Group's business, results of operations, financial condition and/or cash flows. In addition to the most significant litigation indicated above, further details on these matters are provided in Notes 25 and 29 to the Consolidated Financial Statements. The details of the provisions for litigation, tax sanctions and claims can be found in Note 24 of the Consolidated Financial Statements.

Telefónica Group is also party to certain litigation in Peru concerning certain previous years' income taxes in respect of which Telefónica has been notified that the judicial resolutions which resolve the contentious administrative processes are unfavorable to the Group and will require it to pay taxes related to prior years. At the end of the relevant proceedings, the Tax Administration, through an administrative act, will determine the amount of the payment obligation. The estimated impact of the aforementioned judicial resolutions is already provisioned in Telefónica's financial statements, with the total provision as of December 31, 2022 amounting to 3,849 million Peruvian soles (approximately 945 million euros at the exchange rate at such date).

An adverse outcome or settlement in these or other proceedings, present or future, could result in significant costs and may have a material adverse effect on the Group's business, financial condition, results of operations and/or cash flows.

Increased scrutiny and changing expectations from stakeholders, evolving reporting and other legal obligations and compliance with the Company's own goals regarding ESG matters, may expose the Company to various risks.

The Telefónica Group may be unable to adapt to or comply with increasingly demanding expectations from analysts, investors, customers and other stakeholders and new regulatory reporting or other legal requirements related to

ESG issues. Further, expectations and requirements may differ from region to region, may be based on diverging calculation or other criteria and may experience material changes as they still are at their emerging phase.

Further, the Group's disclosure of information on its ESG objectives and initiatives in its public reports and other communications (including its CO₂ emission reduction targets) subjects it to the risk that it will fail to achieve these objectives and initiatives.

Although Telefónica is working to comply with new ESG reporting requirements, to achieve its objectives, and to meet the expectations of its stakeholders in these matters, if the Company is unable to meet these expectations, fails to adequately address ESG matters or fails to achieve the reported objectives (including its CO₂ emission reduction targets), the Telefónica Group's reputation, its business, financial position, results of operations and/or cash flows could be materially and adversely affected.

The Telefónica Group is exposed to risks in relation to compliance with anti-corruption laws and regulations and economic sanctions programs.

The Telefónica Group is required to comply with the anti-corruption laws and regulations of the jurisdictions where it conducts operations around the world, including in certain circumstances with laws and regulations having extraterritorial effect such as the U.S. Foreign Corrupt Practices Act of 1977 and the United Kingdom Bribery Act of 2010. The anti-corruption laws generally prohibit, among other conduct, providing anything of value to government officials for the purposes of obtaining or retaining business or securing any improper business advantage or failing to keep accurate books and records and properly account for transactions.

In this sense, due to the nature of its activities, the Telefónica Group is increasingly exposed to this risk, which increases the likelihood of occurrence. In particular, it is worth noting the continuous interaction with officials and public administrations in several areas, including the institutional and regulatory fronts (as the Telefónica Group carries out a regulated activity in different jurisdictions), the operational front (in the deployment of its network, the Telefónica Group is subject to obtaining multiple activity permits) and the commercial front (the Telefónica Group provides services directly and indirectly to public administrations). Moreover, Telefónica is a multinational group subject to the authority of different regulators and compliance with various regulations, which may be domestic or extraterritorial in scope, civil or criminal, and which may lead to overlapping authority in certain cases. Therefore, it is very difficult to quantify the possible impact of any breach, bearing in mind that such quantification must consider not only the economic amount of sanctions, but also the potential negative impact on the business, reputation and/or brand, or the ability to contract with public administrations.

Additionally, the Telefónica Group's operations may be subject to, or otherwise affected by, economic sanctions programs and other forms of trade restrictions ("sanctions") including those administered by the United Nations, the European Union, the United States, including by the U.S. Treasury Department's Office of Foreign Assets Control and the United Kingdom. The sanctions regulations restrict the Group's business dealings with certain sanctioned countries, territories, individuals and entities and may impose certain trade restrictions, among others, export and/or import trade restrictions to certain good and services. In this context, the provision of services by a multinational telecommunications group, such as the Telefónica Group, directly and indirectly, and in multiple countries, requires the application of a high degree of diligence to prevent the contravention of sanctions (which take various forms, including economic sanctions programs applicable to countries, territories, lists of entities and persons sanctioned or certain trade restrictions). Given the nature of its activity, the Telefónica Group's exposure to these sanctions is particularly noteworthy.

Although the Group has internal policies and procedures designed to ensure compliance with the above mentioned applicable anti-corruption laws and sanctions regulations, there can be no assurance that such policies and procedures will be sufficient or that the Group's employees, directors, officers, partners, agents and service providers will not take actions in violation of the Group's policies and procedures (or, otherwise in violation of the relevant anti-corruption laws and sanctions regulations) for which the Group, its subsidiaries or they may be ultimately held responsible. In this regard, the Group is currently cooperating with governmental authorities (and, where appropriate, conducting the relevant internal investigations) regarding requests for information potentially related, directly or indirectly to possible violations of applicable anti-corruption laws. Telefónica believes that, considering the size of the Group, any potential penalty as a result of matters relating to those specific information requests would not materially affect the Group's financial condition.

Notwithstanding the above, violations of anti-corruption laws and sanctions regulations could lead not only to financial penalties, but also to exclusion from government contracts and the revocation of licenses and

authorizations, and could have a material adverse effect on the Group's reputation, or otherwise adversely affect the Group's business, financial condition, results of operations and/or cash flows.

Item 4. Information on the Company

A. History and Development of the Company

Overview

Telefónica, S.A. is a corporation duly organized and existing under the laws of the Kingdom of Spain, incorporated on April 19, 1924. We:

- are a diversified telecommunications group which provides a comprehensive range of services through one of the world's largest and most modern telecommunications networks;
- are focused on providing telecommunications services; and
- operate principally in Europe and Latin America.

The following significant events occurred in 2022:

- On January 11, 2022, once the corresponding authorizations from the regulatory authorities were obtained and after the fulfillment of certain agreed conditions, the transaction between Colombia Telecomunicaciones S.A. ESP BIC (Telefónica Colombia) and a Colombian company controlled by Kohlberg Kravis Roberts ("KKR"), Onnet Fibra Colombia S.A.S, for the sale and purchase of certain fiber assets owned by Telefónica Colombia and for the provision of wholesale connectivity services by Onnet Fibra Colombia S.A.S to Telefónica Colombia, the development of activities of deployment of fiber network and other associated services, was completed. Telefónica Colombia received, as consideration, 187 million U.S. dollars (approximately 165 million euros at the exchange rate at such date) and 40% of the shares of a Spanish company controlled by KKR, Alamo HoldCo S.L., the sole shareholder of Onnet Fibra Colombia S.A.S.

- On January 13, 2022, Telefónica executed an amendment to the syndicated facility agreement signed on March 15, 2018, with several domestic and international financial entities for a maximum aggregate amount of 5,500 million euros, linked to sustainability objectives: greenhouse gas emissions reduction and increase of women in executive positions. This facility agreement is composed of a five-year single tranche revolving credit facility in an aggregate amount of up to 5,500 million euros with two annual extension options, at the request of Telefónica, for a maximum maturity of seven years.

- On January 13, 2022, after the satisfaction of the closing conditions and once the relevant regulatory approvals were obtained, Telefónica Centroamérica Inversiones, S.L. (60% of which is held, directly and indirectly, by Telefónica and 40% of which is held by Corporación Multi Inversiones) transferred its 99.3% stake in Telefónica Móviles El Salvador to General International Telecom El Salvador, S.A. de C.V. for an amount of 139 million U.S. dollars (approximately 121 million euros at the exchange rate at such date).

- On January 26, 2022, Colombia Telecomunicaciones, S.A. ESP made an early repayment of its bilateral loan for 132 million U.S. dollars signed on March 24, 2020. The loan was originally scheduled to mature in 2023.

- On February 1, 2022, Telefónica's subsidiary, Pontel Participaciones, S.L. ("Pontel"), a company which is held 83.35% by Telefónica and 16.65% by Pontegadea Inversiones, S.L. ("Pontegadea"), reached an agreement with Taurus Bidco S.à r.l. ("Taurus", a company managed by KKR) for the purchase of 40% of the share capital of Telxius Telecom, S.A. ("Telxius"), held by Taurus, for an estimated amount of 215.7 million euros, being the referred price subject to, among others, adjustments derived from the sale of Telxius's towers business to American Tower.

As a result of the transaction, Pontel, which then held the remaining 60% of the share capital of Telxius, was to become the sole shareholder of Telxius. Pontegadea was to increase its holding in Pontel to 30% and Telefónica would hold a 70% stake, meaning that Pontegadea's indirect holding in Telxius would increase from 9.99% to 30% and Telefónica's indirect holding in Telxius would increase from 50.01% to 70%. The closing of the transaction, which was subject to the obtaining of the relevant regulatory and competition authorizations, took place on January 18, 2023.

- On February 8, 2022, Telefónica Brasil S.A. redeemed 1,000 million Brazilian reais (approximately 166 million euros at the exchange rate as of such date) of its bond, issued on February 8, 2017.

- On February 25, 2022, Telefónica filed with the United States Securities and Exchange Commission its annual report on Form 20-F for the year ended December 31, 2021.
- On March 4, 2022, the Board of Directors of Telefónica resolved to call the Annual General Shareholders' Meeting to be held in Madrid, at the offices of Telefónica, S.A. located in Distrito Telefónica, Ronda de la Comunicación s/n, Central Building Auditorium, at 11:00 a.m. on April 8, 2022 on second call, in the event that the legally required quorum would not be reached and therefore the Meeting could not be held on the first call that had been called on April 7, 2022 at the same place and time.
- On March 21, 2022, Telefónica Tech UK & Ireland, Ltd. ("T. Tech UK") signed an agreement for the acquisition of 100% of the shares of the Scottish company Perpetual TopCo Limited, the holding company of a group of companies ("Incremental Group") focused on the provision of advanced IT services (including business applications and data analytics) in the United Kingdom, for consideration of up to GBP 175 million (approximately 209 million euros as of such date) (including certain potential deferred payments -earn-outs-). The transaction was signed and closed simultaneously.
- On March 28, 2022, Telefónica Audiovisual Digital, S.A.U. entered into an agreement with the company DAZN for the distribution of DAZN LaLiga Package. Such package included five football matches per match weekend of the Spanish First Division Football Championship, in 35 out of 38 match weekends for exploitation on pay television for residential subscribers in Spain. See "Item 10. Additional Information—Material Contracts—Football (soccer) License Agreements with LaLiga, UEFA and RFEF, respectively" for additional information.
- On March 30, 2022, Telefónica Emisiones, S.A.U., under its Guaranteed Euro Programme for the Issuance of Debt Instruments ("EMTN Programme"), launched a private issuance of 100 million euros of notes in the Euro market, guaranteed by Telefónica, S.A. This issuance is due on July 13, 2040 with an original annual coupon of 1.864%. The settlement of the transaction took place on April 5, 2022.
- On April 8, 2022, the Annual General Shareholders' Meeting of Telefónica was held at second call. All the resolutions submitted were approved at the meeting.

Further to the Annual General Shareholders' Meeting of Telefónica, S.A., the Board of Directors of Telefónica, following a favorable report from the Nominating, Compensation and Corporate Governance Committee, unanimously adopted the following resolutions regarding the reelection of Directors approved at the Annual General Shareholders' Meeting: (i) to reelect Mr. José María Abril Pérez as Vice-Chairman of the Board of Directors; (ii) to reelect Mr. Ángel Vilá Boix as Chief Operating Officer of Telefónica, S.A.; (iii) to reelect Mr. José María Abril Pérez, Mr. Ángel Vilá Boix and Mr. Francisco Javier de Paz Mancho as members of the Executive Commission of the Board of Directors; and (iv) that the Directors reelected and ratified and appointed by the Annual General Shareholders' Meeting that are members of any of the remaining Committees of the Board of Directors continue to be members of those Committees.

Furthermore, Telefónica announced on that day that its Board of Directors resolved to carry out the implementation of the share capital reduction through the cancellation of the treasury shares approved by the Annual General Shareholders' Meeting. The share capital of Telefónica, S.A. was reduced in the amount of 139,275,057 euros, through the cancellation of 139,275,057 shares of Telefónica held as treasury stock, with a nominal value of one euro each. The reduction was carried out with a charge to unrestricted reserves, through the allocation of a reserve for cancelled share capital in an amount equal to the nominal value of the cancelled shares (i.e. for an amount of 139,275,057 euros). The share capital of Telefónica resulting from the reduction was set at 5,639,772,963 euros corresponding to 5,639,772,963 shares with a nominal value of one euro each. On April 22, 2022, the public deed relating to the share capital reduction was registered in the Commercial Registry of Madrid.

- On April 8, 2022, Telefónica Brasil S.A. ("Telefónica Brasil") drew down 212 million U.S. dollars of its bilateral loan signed on April 4, 2022 and maturing in 2023.
- On April 13, 2022, Telefónica Emisiones, S.A.U. redeemed 874 million euros of its notes issued on April 13, 2016. These notes were guaranteed by Telefónica, S.A.

- On April 20, 2022, Telefónica informed that the closing of the transaction related to the Contract of Purchase and Sale of Shares and Other Covenants concluded on January 28, 2021 (as amended) (the "Contract"), between Telefónica Brasil, Tim S.A. and Claro, S.A. together, as the Buyers, and Oi S.A. – in Judicial Recovery (successor of Oi Móvel S.A. – In Judicial Recovery) as Seller, was carried out. In this regard, Telefónica Brasil acquired all the shares of Garliava RJ Infraestrutura e Redes de Telecomunicações S.A., to which the mobile assets of Oi Group

assigned to Telefónica Brasil were contributed, in accordance with the Segregation and Division Plan stated in the Contract. See "Item 10. Additional Information—Material Contracts—Purchase Agreement for Acquisition of UPI Mobile Assets of Oi Group" for additional information.

- On April 27, 2022, the Executive Commission of the Board of Directors of Telefónica resolved that in a meeting expected to be held on May 25, 2022, the appropriate corporate resolutions to carry out the execution of the capital increase with a charge to reserves related to the shareholder compensation through scrip dividend payment, approved by the Annual General Shareholders' Meeting held on April 8, 2022, under item VII.1 of its Agenda, will be submitted for approval of the Board of Directors of Telefónica or of its Executive Commission.

- On May 9, 2022, Telefónica informed that its subsidiary Telefónica Cybersecurity & Cloud Tech, S.L.U. ("Telefónica Tech") had reached an agreement with certain investment funds managed by Deutsche Private Equity GmbH (and other sellers) for the acquisition of the 100% of the shares of the German company BE-terna Acceleration Holding GmbH and its subsidiaries ("BE-terna Group"). The amount of the transaction (enterprise value or EV) was up to 350 million euros, including potential variable remunerations (earn-outs). BE-terna Group is a business group mainly dedicated to providing advanced cloud solutions for the digital transformation of companies, being a Microsoft Gold Partner. With this acquisition, Telefónica Tech strengthened its position in Germany, a strategic market for the Telefónica Group, while incorporating a growth platform in new relevant markets in Europe. The closing of the transaction was subject to the authorization of the German competition authority (*Bundeskartellamt*). The transaction closed on June 9, 2022.

- On May 18, 2022, Telefónica, through its wholly-owned subsidiary Telefónica Emisiones, S.A.U., launched in the Euro market under its EMTN Programme an issuance of notes guaranteed by Telefónica amounting to 1,000 million euros. These notes are due on May 25, 2031, pay an annual coupon of 2.592% and were issued at par (100%), and they are listed on the regulated market of the Irish Stock Exchange plc, trading as Euronext Dublin. The net proceeds of the notes are to be allocated toward eligible investments: mainly energy efficiency coming from the network transformation from copper to fiber optic in 5G deployment, but also inclusive connectivity accelerating deployment of broadband in unconnected or underserved areas and supporting employment generation and entrepreneurships. The settlement of the transaction took place on May 25, 2022.

- On May 19, 2022, Telefónica informed that it has signed an agreement with the company Global Alconaba, S.L., for the sale of 50,147,058 shares of Promotora de Informaciones, S.A. ("Prisa"), equivalent to 7.076% of its share capital, for an amount of 0.68 euros per share, payable in cash. As a result, Telefónica's shareholding in Prisa was reduced to 13,839,900 shares, equivalent to 1.953% of Prisa's share capital at the time.

- On May 25, 2022, the Executive Commission of Telefónica's Board of Directors, agreed the implementation of the capital increase with a charge to reserves related to the shareholder compensation by means of a scrip dividend, approved by the Annual General Shareholders' Meeting on April 8, 2022. Further on June 16, 2022, Telefónica announced that on June 14, 2022 the free-of-charge allotment rights trading period for Telefónica's Flexible Dividend ended. The shareholders of 25.54% of the free-of-charge allotment rights accepted the purchase commitment assumed by Telefónica. The gross amount paid by Telefónica for these rights amounted to 213,174,854.42 euros. Telefónica waived the rights thus acquired, which were amortized. On the other hand, the shareholders of 74.46% of the free-of-charge allotment rights opted to received new shares of Telefónica. Therefore, the final number of ordinary shares with a nominal value of 1 euro issued in the capital increase was 135,464,591, corresponding to 2.40% of the share capital, being the amount of the capital increase 135,464,591 euros. As a result, the amount of the share capital of Telefónica, S.A. after the capital increase was set at 5,775,237,554 euros, divided into 5,775,237,554 shares. The deed relating to the capital increase was filed with the Commercial Registry of Madrid on June 24, 2022.

- On May 27, 2022, Telefónica Emisiones, S.A.U. redeemed 938 million euros of its notes issued on May 27, 2014. These notes were guaranteed by Telefónica, S.A.

- On June 27, 2022, Telxius Telecom, S.A. drew down 100 million euros of its syndicated loan signed on December 1, 2017 and maturing in 2024.

- On July 14, 2022, Telefónica Brasil made an issuance of debentures for a total amount of 3,500 million Brazilian reais (approximately 628 million euros at the exchange rate as of such date) (1,500 million Brazilian reais maturing in 2025 and 2,000 million Brazilian reais maturing in 2027).

- On July 25, 2022, Telefónica announced that Telefónica España and Telefónica Infra, S.L.U. ("T. Infra") had reached an agreement with a consortium formed by Vauban Infrastructure Partners ("Vauban") and Crédit Agricole

Assurances ("CAA") to incorporate a joint company, Bluevia Fibra, S.L. ("Bluevia"), for the deployment and commercialization of a fiber-to-the-home (FTTH) network mainly in rural areas in Spain. On December 20, 2022, once the corresponding regulatory authorizations were obtained and after the fulfillment of the remaining agreed conditions, the transaction was completed. Consequently, Bluevia acquired from Telefónica España 3.9 million premises already passed, with the commitment -by Bluevia- of reaching Bluevia's total footprint of 5 million premises passed by the end of 2024. The consortium formed by CAA and Vauban acquired 45% of Bluevia for a total amount of 1,021 million euros in cash, paid on closing, valuing 100% of Bluevia at 2,500 million euros. See "Item 10. Additional Information—Material Contracts—Investment agreement with Vauban and Crédit Agricole Assurances for the establishment of Bluevia Fibra" for additional information.

- On July 29, 2022, T. Infra, Liberty Global plc ("Liberty Global") and InfraVia Capital Partners ("InfraVia") reached an agreement for the establishment of nexfibre, a joint venture for the deployment of fiber-to-the-home ("FTTH") to 5 million homes in the United Kingdom not reached by VMO2's network, with potential for expansion to an additional 2 million homes. The fiber network would offer wholesale FTTH access to telecommunications service providers, with VMO2 acting as the lead customer and providing a range of technical services. Once the relevant regulatory authorizations were obtained and the other conditions were fulfilled, the closing of the transaction took place on December 15, 2022. After closing, Liberty Global and T. Infra participate by halves in a joint vehicle that holds a 50% interest in nexfibre, with InfraVia owning the remaining 50%. See "Item 10. Additional Information—Material Contracts—Agreement reached by T. Infra, Liberty Global and InfraVia for the establishment of a fiber-to-the-home (FTTH) joint venture in the United Kingdom" for additional information.

- On October 25, 2022, Telefónica informed that it had been notified of the execution Agreement of the Judgment of the National High Court (*Audiencia Nacional*), which had confirmed the criteria for the use of negative tax bases and deductions maintained by Telefónica in relation to the assessments Agreements derived from the 2008-2011 Corporate Income Tax Audit. The notified Agreement orders the refund to Telefónica of an amount of 790 million euros for taxes paid in those years, as well as an amount of 526 million euros as delayed interest. Said amounts were collected on October 28, 2022.

- On November 3, 2022, the Board of Directors resolved to set December 15, 2022 as the payment date for the dividend in cash, charged to unrestricted reserves approved by the Annual General Shareholders' Meeting held on April 8, 2022, consisting of a fixed gross amount of 0.15 euros for each existing Telefónica share entitled to participate in such distribution. This is the first payment of the commitment announced by Telefónica to remunerate the shareholder with a dividend of 0.30 euros per share for 2022. The second payment of 0.15 euros per share in cash is expected to be made in June 2023. The adoption of the corresponding corporate resolutions is expected to be proposed at the next General Shareholders' Meeting.

- In November 2022, Telefónica Europe, B.V. carried out the following transactions related to its capital structure:

- a new issue amounting to 750 million euros, guaranteed by Telefónica, S.A. An amount equal to the net proceeds of the issue of the securities will be subject to specific eligibility criteria to be applied to finance new or refinance existing projects, as detailed in Telefónica's SDG Framework. The settlement took place on November 23, 2022;

- a tender offer for the following hybrid instruments: (i) any outstanding 1,000 million euros Undated 5.5 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "March 2023 Notes") and (ii) any outstanding 1,250 million euros Undated 5.7 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "September 2023 Notes"), irrevocably guaranteed by Telefónica, S.A. Telefónica Europe, B.V. accepted the purchase in cash of any and all of the tendered securities in an aggregate principal amount of 547.4 million euros of the March 2023 Notes and 73.6 million of the September 2023 Notes. The tender offer settled on November 24, 2022; and

- following the settlement of the abovementioned tender offer and the subsequent cancellation of the repurchased securities, Telefónica Europe, B.V. announced on November 25, 2022 the exercise of the early redemption option with respect to the March 2023 Notes, according to their terms and conditions, for the remaining outstanding securities (129 million euros). Such outstanding instruments were redeemed on December 27, 2022 pursuant to the exercise of the early redemption option.

For information on certain significant events that have occurred to date in 2023, see "—Recent Developments".

Business areas

In 2022 the Telefónica Group is reporting financial information, both internally and externally, according to the following segments: Telefónica Spain, VMO2, Telefónica Germany, Telefónica Brazil and Telefónica Hispam (formed by the Group's operators in Colombia, Mexico, Venezuela, Ecuador, Argentina, Chile, Peru and Uruguay).

During 2021, compared to 2020, the Telefónica Group changed its reporting segments as follows:

- On June 1, 2021, upon the establishment of VMO2 (whose results are accounted for under the equity method), the former Telefónica United Kingdom segment was replaced by the new VMO2 segment (see Notes 2 and 10 to the Consolidated Financial Statements). The Group's consolidated results for the year ended December 31, 2021 include the consolidation of Telefónica United Kingdom from January 1 to June 1, and the equity accounting of 50% of the net result of VMO2 from June 1 to December 31 (see Note 10 to the Consolidated Financial Statements). The gain registered upon the establishment of VMO2, amounting to 4,460 million euros (see Notes 2 and 23 to the Consolidated Financial Statements), is recorded under "Other companies". The VMO2 segment information included in this Annual Report is presented under management criteria, and shows 100% of VMO2's results. In addition, information included in this Annual Report on the accesses of the Group and the VMO2 segment as of December 31, 2022 and December 31, 2021 includes 100% of the accesses of VMO2. Telefónica's actual percentage ownership of VMO2 is 50%.

Since it is not practicable to restate the historical segment financial information to reflect this change, in this Annual Report, the relevant segment discussions consist of (i) for purposes of the 2022-2021 period-on-period discussions, an analysis of the results of our VMO2 segment (which, for purposes of 2022, consists of the results obtained by VMO2 from January 1 to December 31, 2022, and, for purposes of 2021, consists of the results obtained by VMO2 from June 1 (the date on which VMO2 was established) to December 31, 2021), and (ii) for purposes of the 2021-2020 period-on-period discussions, an analysis of the results of our former Telefónica United Kingdom segment (which, for purposes of 2021, consists of the results obtained in the first five months of the year, until the establishment of VMO2 and the elimination of the Telefónica United Kingdom segment).

- The Telxius Group ceased to be a reporting segment in 2021 as a result of the sale of the telecommunications towers divisions in Europe and Latin America to American Tower Corporation (see Note 2 to the Consolidated Financial Statements). The Telxius Group's results as well as the gain obtained for the sale of the telecommunications towers divisions, amounting to 6,099 million euros (see Notes 2 and 22 to the Consolidated Financial Statements), were recorded under "Other companies".

The segments referred to above include the information related to the fixed, wireless, cable, data, Internet and television businesses and other digital services provided in each related region. Inter-segment transactions are carried out on an arm's-length basis.

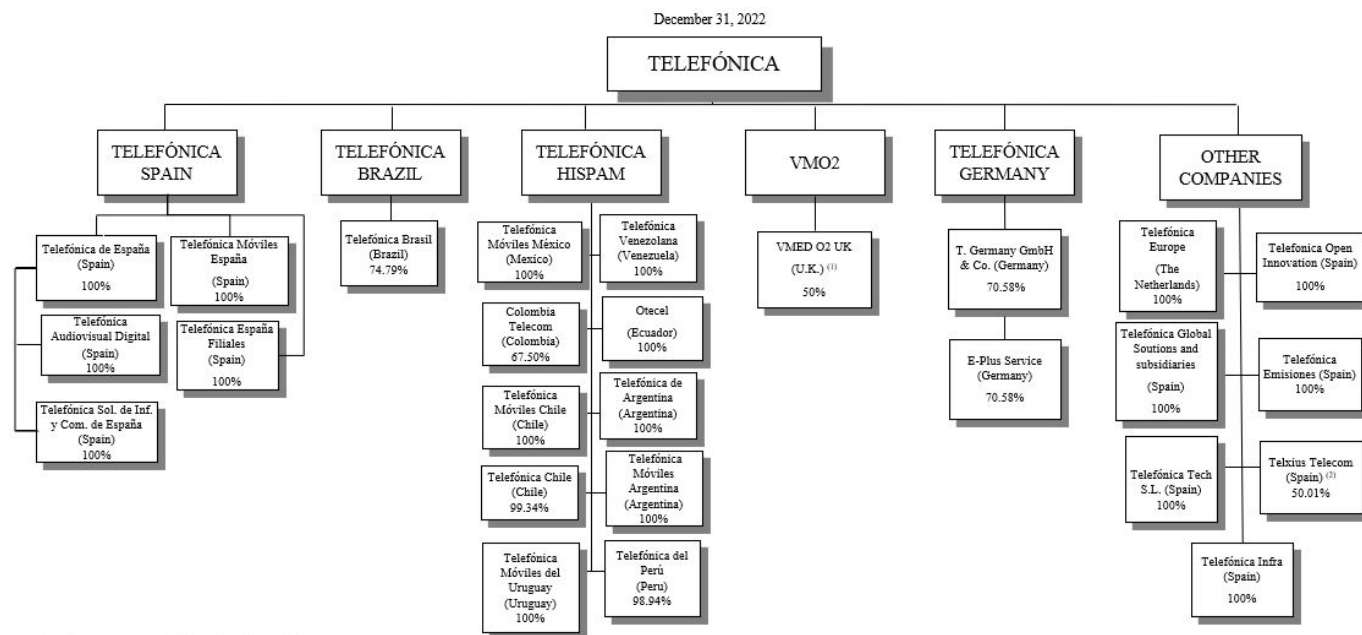
Information relating to other Group companies not specifically included in the segments referred to above is reported under "Other companies" (see Appendix I to the Consolidated Financial Statements), which includes Telefónica, S.A. and other holding companies, as well as companies whose main purpose is to provide cross-sectional services to Group companies, and other operations not included in the segments. The Incremental Group and BE-terna Group, acquired in March and June of 2022 (see Note 5 to the Consolidated Financial Statements), respectively, are reported within "Other companies". "Other companies" also includes the share of results of investments accounted for by the equity method corresponding to the fiber optic companies incorporated in 2021 and 2022 (see Note 10).

The Group centrally manages borrowing activities, mainly through Telefónica, S.A. and other companies included in "Other companies" (see Note 19, Appendix III and Appendix V to the Consolidated Financial Statements), so most of the Group's financial assets and liabilities are reported under "Other companies". In addition, Telefónica, S.A. is the head of the Telefónica tax group in Spain (see Note 25 to the Consolidated Financial Statements). Therefore, a significant part of the deferred tax assets and liabilities is included under "Other companies". For these reasons, the results of the segments are disclosed up through operating income.

Revenues and expenses arising from intra-group invoicing for the use of the trademark and management services were eliminated from the operating results of each Group segment. The results of the holding companies also exclude dividends from Group companies and impairments of investments in Group companies. These adjustments have no impact on the Group's consolidated results. In addition, segment reporting considers the impact of the purchase price allocation to the assets acquired and the liabilities assumed by the companies included in each

segment. The assets and liabilities presented in each segment are those managed by the heads of each segment, regardless of their legal structure.

The following chart shows the organizational structure of the principal subsidiaries of the Telefónica Group at December 31, 2022, including their jurisdictions of incorporation and our ownership interest. For further detail, see Exhibit 8.1 to this Annual Report.



(1) Investment accounted for under equity method.
 (2) On January 18, 2023, the announced transaction with Taurus Bidco S.à.r.l. was completed and Telefónica increased its stake to 70% in Telxius as of that date.

Telefónica, S.A., the parent company of the Telefónica Group, operates as a holding company with the following objectives:

- coordinate the Group's activities;
- allocate resources efficiently among the Group;
- provide managerial guidelines for the Group;
- manage the Group's portfolio of businesses;
- foster cohesion within the Group; and
- foster synergies among the Group's subsidiaries.

Our principal executive offices are located at Distrito Telefónica, Ronda de la Comunicación, s/n, 28050 Madrid, Spain, and our registered offices are located at Gran Vía, 28, 28013 Madrid, Spain. Our telephone number is +34 900 111 004.

Capital Expenditures

Our principal capital expenditures for the years ended December 31, 2022, 2021 and 2020, consisted of additions to property, plant and equipment and additions to intangible assets, including spectrum. In 2022, 2021 and 2020, we had capital expenditures of 5,819 million euros, 7,267 million euros and 5,861 million euros, respectively.

Year ended December 31, 2022

Capital expenditures in 2022 decreased by 19.9% compared to 2021. Capital expenditures in 2022 included the cost of spectrum mainly in Colombia, Brazil, Argentina and Uruguay, amounting to 173 million euros.

Investment by Telefónica Spain amounted to 1,550 million euros and was primarily focused on continuing the deployment of the fiber optic network, exceeding 28 million premises passed by year-end 2022, as well the development of the 5G network, reaching 85% population coverage at the end of the year. Investment by Telefónica Germany in 2022 amounted to 1,209 million euros and was primarily focused on continuing the progress in 5G roll-out and network modernization. 5G population coverage stood at approximately 80% at year-end, significantly over-achieving the initial target and aiming for nationwide 5G coverage by no later than 2025. Investment by Telefónica Brazil in 2022 amounted to 1,795 million euros and was mainly dedicated to extending the coverage and capacity of 4G mobile networks, with a population coverage of 96%, and the improvement of network quality and deployment of the FTTH network in the fixed business, exceeding 23.3 million premises passed. Investment by Telefónica Hispam in 2022 amounted to 1,058 million euros and was mainly focused on the improvement of mobile networks (with coverage expansions and capacity reinforcement) as well as on the deployment of our own fixed network. The efficient administration of available resources and the optimization of CapEx are the main management levers in the region, focusing on the simplification, digitization of processes and the search for synergies through the promotion of regional initiatives.

Year ended December 31, 2021

Capital expenditures in 2021 increased by 24.0% compared to 2020. Capital expenditures in 2021 included the cost of spectrum mainly in Brazil, United Kingdom, Spain and Chile, amounting to 1,704 million euros.

Investment by Telefónica Spain amounted to 1,815 million euros and was primarily focused on continuing the fast deployment of the fiber optic network, exceeding 26 million premises passed by year-end 2021, as well the development of the 5G network reaching 81% population coverage at the end of the year. Investment by our former Telefónica United Kingdom segment during the first five months of 2021 (before the establishment of VMO2) amounted to 933 million euros and was mainly focused on 5G deployment, reaching 200 cities, and improving the fixed network. Investment by Telefónica Germany in 2021 amounted to 1,284 million euros and was primarily focused on the accelerated 3G network switch off and the continued improvement of the 4G/5G networks (5G network is active in more than 200 cities, achieving a coverage of 30% by year-end 2021). Investment by Telefónica Brazil in 2021 amounted to 2,069 million euros and was mainly dedicated to extending the coverage and capacity of 4G mobile networks, with a population coverage of 93%, and the improvement of network quality and deployment of the FTTH network in the fixed business, exceeding 19.5 million premises passed. Investment by Telefónica Hispam in 2021 amounted to 978 million euros and was mainly focused on improving the coverage and capacity of 4G networks, the launch of 5G in Chile and ultra-broadband fixed capabilities. In addition, the simplification and

digitization of processes continued to be one of the main investment focuses outside of the resources allocated to the network.

Year ended December 31, 2020

Capital expenditures in 2020 decreased by 33.3% compared to 2019. Capital expenditures in 2020 included the cost of spectrum mainly in the United Kingdom and Brazil, amounting to 126 million euros.

The year-on-year decline was mainly attributable to fewer spectrum acquisitions in 2020 and lower capital expenditures in light of the COVID-19 pandemic, with our investment in 2020 being focused on the availability of resources and revenues. In particular, we remained focused on accelerating seamless connectivity (deployment of LTE and fiber networks, increased network capacity and virtualization) while seeking to improve quality and customer experience. The year-on-year decline was partially offset by the launch of the 5G network in Spain and Germany.

Investment by Telefónica Spain amounted to 1,408 million euros and was primarily focused on fast fiber optic and IPTV rollout, exceeding an estimated 25 million premises passed by year-end 2020, as well as investments in the launch of the 5G network reaching 75% population coverage (based on the calculation criteria used by competitors, pursuant to which all inhabitants of the cities that have some 5G coverage are considered) at the end of the year. Investment by our former Telefónica United Kingdom segment in 2020 amounted to 913 million euros and was mainly focused on 5G deployment and the improvement of the 4G navigation experience, achieving 99% population coverage by year-end 2020. Investment by Telefónica Germany in 2020 amounted to 1,094 million euros and was primarily focused on the launch of the 5G network across 15 cities and the extension of 4G coverage, achieving a population coverage of 99.6% by year-end 2020. Investment by Telefónica Brazil in 2020 amounted to 1,372 million euros and was mainly dedicated to extending the coverage and capacity of 4G mobile networks, the improvement of network quality, the extension of the FTTH network in the fixed business, as well as network simplification and the digitalization of processes and systems. Investment by Telefónica Hispam in 2020 amounted to 833 million euros and was mainly focused on improving the coverage and capacity of 4G networks and ultra-broadband fixed capabilities, as well as processes and systems simplification and digitalization in the region.

Financial Investments and Divestitures

Our principal financial investments in 2022 were: (i) the acquisition of the mobile assets of the Oi Group on April 20, 2022 for consideration of 1,093 million euros; (ii) the acquisition of Incremental Group on March 21, 2022 for consideration of 104 million euros (including potential contingent payments linked to its future performance); (iii) the acquisition of BE-terna Group on June 9, 2022 for consideration of 191 million euros (including potential contingent payments linked to its future performance) and (iv) the closing on December 20, 2022 of the agreement between Telefónica de España, S.A.U. and T. Infra with a consortium formed by Vauban Infrastructure Partners and Crédit Agricole Assurances to incorporate a company, Bluevia Fibra, S.L., for the deployment and commercialization of an FTTH network mainly in rural areas in Spain, after obtaining the corresponding regulatory authorizations and the fulfillment of certain other agreed conditions. The consortium acquired 45% of the company for the amount of 1,021 million euros.

Our principal financial divestiture in 2022 was the sale on January 13, 2022 of Telefónica Móviles El Salvador to General International Telecom El Salvador, S.A. de C.V. for 139 million U.S. dollars (approximately 121 million euros at the exchange rate at such date), after the satisfaction of the relevant closing conditions and once the relevant regulatory approvals were obtained.

Our principal financial investments in 2021 were: (i) the closing of the transaction among Telefónica and Liberty Global and the establishment of VMO2 through the combination of their respective operating businesses in the United Kingdom (O2 Holdings Ltd. and Virgin Media UK, respectively) to create an integrated communications provider in the United Kingdom, with Telefónica holding a 50% stake in VMO2; (ii) the acquisition of 100% of the shares in Cancom Ltd by Telefónica Tech on July 29, 2021 for 340 million pounds sterling (approximately 398 million euros at the date of the transaction); (iii) the closing on July 21, 2021 of part of the investment agreement in Nabiax by which T. Infra received a 13.94% equity stake in Nabiax in exchange for two data centers in Spain. The fulfillment of the conditions related to the contribution of two additional data centers in Chile occurred on May 24, 2022. Following the completion of the addition, T. Infra's stake in Nabiax increased to 20%; and (iii) the closing on July 2, 2021 of the investment agreement with Caisse de dépôt et placement du Québec ("CDPQ") in FiBrasil Infraestructura e Fibra Ótica S.A. ("FiBrasil"), each of which held 50% under a co-control governance model.

Our principal financial divestitures in 2021 were: (i) the sale of Telxius telecommunications towers divisions in Europe (Spain and Germany) and in Latin America (Brazil, Peru, Chile and Argentina), as well as 4,080 sites that Telxius undertook to acquire from Telefónica Germany GmbH & Co. OHG, under the second phase of the agreement reached between both parties on June 8, 2020, to American Tower Corporation for 7,865 million euros; (ii) the sale of Telefónica de Costa Rica TC, S.A. to Liberty Latin America Ltd for 538 million U.S. dollars (approximately 457 million euros at the date of the agreement); and (iii) the sale on July 1, 2021 of 60% of the shares of InfraCo, SpA to KKR Alameda Aggregator L.P. by Telefónica Chile, S.A. The transaction values InfraCo, SpA at 1.0 billion U.S. dollars (approximately 0.8 billion euros at the exchange rate as of the date of the agreement).

Our principal financial investment in 2020 was the acquisition of 50% of the shares in Prosegur Alarmas España, S.L. by Telefónica de Contenidos, S.A.U. on February 28, 2020 paid with 49,545,262 shares of Telefónica, with a valuation amounting to 266 million euros at the date of the transaction. There were no significant financial divestitures in 2020.

Active portfolio management is part of Telefónica's strategy and therefore it may undertake transactions involving its or its subsidiaries' shares, including transactions similar to those undertaken in the 2020-2022 period or otherwise, at any time.

Public Takeover Offers

Not applicable.

Recent Developments

The principal events that have occurred since December 31, 2022 are set forth below:

- On January 13, 2023, the first annual extension of the sustainability-linked syndicated loan facility for 5,500 million euros of Telefónica, S.A. was exercised. The new expiration date is January 13, 2028.
- On January 18, 2023, Telefónica informed that, once the corresponding regulatory and competition approvals were obtained, Pontel Participaciones, S.L., Telefónica's subsidiary held 83.35% by Telefónica and 16.65% by Pontegadea Inversiones, S.L., acquired 40% of the share capital of Telxius Telecom, S.A. from Taurus Bidco S.à r.l. (a company managed by KKR). As a result of the transaction, Pontel Participaciones, S.L., which held the remaining 60% of Telxius Telecom, S.A.'s share capital, has become the sole shareholder of Telxius Telecom, S.A. Likewise, Pontegadea Inversiones, S.L. increased its holding in Pontel Participaciones, S.L. to 30% and Telefónica has now a 70% stake.
- On January 23, 2023, Telefónica Emisiones, S.A.U. redeemed 1,277 million euros of its notes issued on January 22, 2013. These notes were guaranteed by Telefónica, S.A.
- In January 2023, Telefónica Europe, B.V. carried out the following transactions related to its capital structure:
 - a new issue amounting to 1,000 million euros, guaranteed by Telefónica, S.A. An amount equal to the net proceeds of the issue of the securities will be subject to specific eligibility criteria to be applied to finance new or refinance existing projects, as detailed in Telefónica's SDG Framework. The settlement took place on February 2, 2023; and
 - a tender offer for the following hybrid instruments: (i) any outstanding 1,250 million euros Undated 5.7 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "September 2023 Notes") and (ii) any outstanding 1,000 million euros Undated 10 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "March 2024 Notes"), irrevocably guaranteed by Telefónica, S.A. Telefónica Europe, B.V. accepted the purchase in cash of the tendered securities for an aggregate principal amount, with respect to the September 2023 Notes, of 388 million euros, and an aggregate principal amount, with respect to the March 2024 Notes, of 612 million euros. The tender offer settled on February 3, 2023.

Public Information

The SEC maintains an Internet site (www.sec.gov) that contains reports and other information regarding issuers that file electronically with the SEC, including Telefónica. See "Item 10. Additional Information—Documents on Display".

[Table of Contents](#)

Additional information on the Group is also available on our website at www.telefonica.com. The information contained on such websites does not form part of this Annual Report on Form 20-F.

B. Business Overview

Telefónica is a telecommunications service provider with its footprint in some markets in Europe and Latin America. Our objective is to create, protect and promote fixed and mobile connections for our customers helping them to take control over their digital lifestyle. Therefore, we primarily offer our customers the connectivity they need to interact and live in the markets where we operate through simple products and services while protecting their data and managing it in a responsible way. We rely on modern technology to create a better and more inclusive society. We aim at offering our customers the possibility to reach the digital world regardless of their location, economic status, level of digital knowledge and capacities.

The Telefónica Group's strategy aims to:

Enhance value through:

- Making our world more human, by connecting lives in a sustainable way as we continue to leverage opportunities in our markets and deliver towards our strategy focused on value creation.
- Offering good connectivity, for which our infrastructure management and our continuous investment in network and platforms are key.
- Good connectivity is the enabler for all digital services. Telefónica provides a wide range of services over connectivity through a fixed and mobile bundled offer which includes video and digital services. We offer our customers additional data in order to amplify services through unique, simple and clear offers.
- Focusing on customers' needs, making their life and digital experience easier through customized offers,

With the following enablers:

- End-to-end digitalization: seeking the reduction of our legacy investments to increase virtualization, the reduction of physical servers, data centers and applications, the digitalization of IT systems and processes and the digitalization of front and back office. Digitalization efforts undertaken in the past have allowed Telefónica to provide a rapid response to companies as they adapted to and sought to enhance their competitiveness in the new landscape.
- Big Data and innovation to add value to our customers and return the control over data to our customers.
- Continued focus on the simplification of processes.
- Digital trust: as we manage ever more personal information about our customers, their trust in us is key. Telefónica seeks a relationship of trust with its customers, and therefore we invest in network security. Telefónica is developing tools to protect information stored on user devices and transmitted across our fixed and mobile communications networks, as well as to protect customers' digital identity.
- Fiber, 4G and 5G deployment enables Telefónica to continue gaining prominence among customers through better experience and a lower churn. These networks help Telefónica to contribute to make technology more accessible, to continue to maintain high quality services for home offices and a higher consumption of entertainment services.

Results Highlights

2022 was a challenging year, during which Telefónica showed its resilience and ability to mitigate the effects of an adverse macro environment. Additionally, in 2022 foreign exchange rates positively affected Telefónica's results, after various years of negative impacts, mitigating the impact of inflation in Europe and certain Latin American markets. Revenues grew for the first time since 2015 (+1.8% y-o-y), supported by the foreign exchange effect and a strong commercial momentum.

Telefónica strengthened its position in core markets:

- In **Spain**, Telefónica's revenues grew thanks to the good commercial performance and despite a complex macro environment, increasing 0.6% y-o-y.
- In **Brazil**, Telefónica maintained its strong operating momentum, accelerating FTTH rollout (reaching 23.3 million premises passed by December 31, 2022) and increasing its mobile contract ex IoT market share to 43.5%, following the acquisition of Oi's mobile assets. These factors, together with the appreciation of the Brazilian real, led to significant revenue growth.
- In **Germany**, Telefónica continued to bolster network quality, surpassing its 5G initial rollout goals and gaining solid commercial traction, reflected in higher revenues and operating income growth.
- In the **United Kingdom**, **VMO2** continued its operating progress driven by synergies.

We took further steps in our strategy to build a stronger Telefónica and focused our investments on next-generation networks, while maintaining a disciplined capital allocation framework.

The table below shows the evolution of accesses over the past three years as of December 31 of such years:

ACCESSES ⁽¹⁾

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Fixed telephony accesses ⁽²⁾	28,243.0	29,966.9	27,941.9	6.1%	(6.8%)
Broadband	20,077.2	25,833.3	26,303.9	28.7%	1.8%
UBB	15,212.8	22,281.8	23,757.7	46.5%	6.6%
FTTH	9,964.2	12,243.8	14,273.0	22.9%	16.6%
Mobile accesses	266,287.1	277,793.3	292,168.1	4.3%	5.2%
Prepay	131,542.0	129,675.7	129,685.7	(1.4%)	—%
Contract	108,587.5	117,432.1	126,242.3	8.1%	7.5%
IoT	26,157.7	30,685.4	36,240.1	17.3%	18.1%
Pay TV	8,059.5	11,111.7	10,586.5	37.9%	(4.7%)
Retail Accesses	322,978.5	344,945.5	357,213.3	6.8%	3.6%
Wholesale Accesses	22,455.0	24,173.3	25,932.9	7.7%	7.3%
Fixed wholesale accesses	3,722.8	3,694.5	3,665.7	(0.8%)	(0.8%)
FTTH wholesale accesses	2,606.8	2,988.0	3,211.7	14.6%	7.5%
Mobile wholesale accesses	18,732.1	20,478.8	22,267.2	9.3%	8.7%
Total Accesses	345,433.5	369,118.9	383,146.2	6.9%	3.8%

Notes:

- The table includes, with respect to 2020, accesses of Telefónica de Costa Rica (2.5 million total accesses) and, with respect to 2020 and 2021, accesses of Telefónica El Salvador (1.9 million and 1.8 million total accesses as of December 31, 2020 and 2021, respectively). The sale of Telefónica de Costa Rica was completed on August 9, 2021. The sale of Telefónica El Salvador was completed on January 13, 2022.

⁽¹⁾ The access information provided as of December 31, 2020 includes the accesses of our former Telefónica United Kingdom segment and does not include Virgin Media's accesses as of such date.

⁽²⁾ Includes fixed wireless and VoIP accesses.

The table below shows the evolution of accesses by segment:

Accesses	21/20 YoY variation	22/21 YoY variation	% Over Total Accesses		
			2020	2021	2022
Telefónica Spain	(2.8%)	0.9%	12.0%	10.9%	10.6%
Telefónica United Kingdom / VMO2 ⁽¹⁾	5.1%	3.1%	10.6%	15.2%	15.1%
Telefónica Germany	2.9%	(2.6%)	14.1%	13.6%	12.8%
Telefónica Brazil	3.9%	13.7%	27.5%	26.8%	29.3%
Telefónica Hispam	1.8%	0.5%	31.4%	29.9%	29.0%
Other companies	(10.6%)	(6.6%)	4.4%	3.7%	3.3%

Note:

⁽¹⁾ Our former Telefónica United Kingdom segment was replaced by our new VMO2 segment on June 1, 2021. For additional information on this change and how segment information is presented in this Annual Report, see "—History and Development of the Company—Business areas". Virgin Media's accesses were considered in calculating the "2021/2020 YoY variation" and "% Over Total Accesses" for 2021.

Accesses 2022 vs 2021

Telefónica's **total accesses** were 383.1 million as of December 31, 2022, increasing 3.8% year-on-year. This increase was mainly attributable to the inclusion of Oi's mobile accesses base since April 1, 2022 within Telefónica Brazil, offset in part by the exclusion of Telefónica El Salvador's accesses since January 1, 2022 due to its sale.

Mobile accesses totaled 292.2 million as of December 31, 2022, up 5.2% compared to December 31, 2021, mainly due to the inclusion of Oi's mobile accesses, partially offset by the sale of Telefónica El Salvador. Postpaid accesses represented 49.3% of the mobile accesses excluding IoT accesses (+1.8 p.p.).

Fixed broadband accesses stood at 26.3 million at December 31, 2022, up 1.8% year-on-year. Retail fiber (FTTH) accesses stood at 14.3 million at December 31, 2022, growing by 16.6% compared to December 31, 2021.

Pay TV accesses totaled 10.6 million as of December 31, 2022, down 4.7% year-on-year mainly due to lower accesses in Telefónica Spain.

Accesses 2021 vs 2020

Telefónica's **total accesses**, which have included 100% of the accesses of VMO2 (in respect of which Telefónica has a 50% stake) since June 1, 2021, totaled 369.1 million as of December 31, 2021, increasing by 6.9% year-on-year, mainly due to the inclusion of Virgin Media's accesses in VMO2, offset in part by the sale of Telefónica de Costa Rica on August 9, 2021. Postpaid accesses for Telefónica Brazil, Telefónica Hispam and Telefónica Germany performed better in 2021, compared to the prior year, due to the lessening of pandemic-related restrictive measures that took place during the year.

Mobile accesses totaled 277.8 million as of December 31, 2021, up 4.3% compared to 2020 mainly due to the inclusion of Virgin Media's accesses, offset in part by the sale of Telefónica de Costa Rica. Mobile accesses increased 4.3% due to an increase in postpaid (+8.1%), offset in part by the decrease in prepay (-1.4%). Postpaid accesses represented 47.5% of the mobile accesses excluding IoT accesses (+2.3 p.p. y-o-y).

Fixed broadband accesses stood at 25.8 million at December 31, 2021, up 28.7% year-on-year mainly due to the inclusion of Virgin Media's accesses. Retail fiber (FTTH) accesses stood at 12.2 million at December 31, 2021, growing by 22.9% compared to December 31, 2020.

Pay TV accesses totaled 11.1 million as of December 31, 2021, up 37.9% year-on-year mainly due to the inclusion of Virgin Media's accesses, offset in part by the sale of Telefónica de Costa Rica.

The tables below show the evolution of Telefónica's estimated access market share for mobile and fixed broadband for the past three years.

Competitive Position Evolution

Telefónica	Mobile Market Share ⁽¹⁾		
	2020	2021	2022
Spain	29.3%	27.6%	27.5%
United Kingdom ⁽²⁾	25.3%	30.1%	29.6%
Germany	35.9%	34.9%	34.2%
Brazil	33.6%	33.1%	38.9%
Argentina	29.2%	29.2%	28.5%
Chile	26.6%	25.8%	25.5%
Peru	31.2%	30.4%	29.0%
Colombia	25.0%	26.0%	25.6%
Venezuela	55.7%	54.7%	53.3%
Mexico	21.0%	19.5%	18.3%
Ecuador	29.9%	31.5%	31.4%
Uruguay	37.0%	29.1%	27.8%

⁽¹⁾ Internal estimates in each year.

⁽²⁾ In 2020, the percentage refers to Telefónica O2's market share as of December 2020. In 2021 and 2022, the percentage refers to VMO2's market share as of September 2021 and September 2022, respectively.

Telefónica	FBB Market Share ⁽¹⁾		
	2020	2021	2022
Spain	36.6%	35.3%	34.0%
Brazil	17.8%	15.3%	14.6%
Argentina	16.5%	11.7%	11.3%
Chile	27.8%	29.8%	31.5%
Peru	66.2%	61.0%	55.1%
Colombia	15.4%	13.8%	15.1%

⁽¹⁾ Internal estimates in both years.

Consolidated results

In this section, we discuss changes in the Group's consolidated income statements for the years ended December 31, 2022, 2021 and 2020.

Consolidated Results	Year ended December 31,			Variation		Variation	
	2020	2021	2022	2021 vs 2020		2022 vs 2021	
Millions of euros	Total	Total	Total	Total	%	Total	%
Revenues	43,076	39,277	39,993	(3,799)	(8.8%)	716	1.8%
Other income	1,587	12,673	2,065	11,086	698.3%	(10,608)	(83.7%)
Supplies	(13,014)	(12,258)	(12,941)	756	(5.8%)	(683)	5.6%
Personnel expenses	(5,280)	(6,733)	(5,524)	(1,453)	27.5%	1,209	(18.0%)
Other expenses	(12,871)	(10,976)	(10,741)	1,895	(14.7%)	235	(2.1%)
OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION (OIBDA)	13,498	21,983	12,852	8,485	62.9%	(9,131)	(41.5%)
OIBDA Margin	31.3 %	56.0 %	32.1 %		24.6 p.p.		(23.8 p.p.)
Depreciation and amortization	(9,359)	(8,397)	(8,796)	962	(10.3%)	(399)	4.8%
Amortization of intangible assets, depreciation of property, plant and equipment	(7,756)	(6,748)	(6,731)	1,008	(13.0)%	17	(0.2)%
Amortization of rights of use	(1,603)	(1,649)	(2,065)	(46)	2.9 %	(416)	25.2 %
OPERATING INCOME (OI)	4,139	13,586	4,056	9,447	228.2%	(9,530)	(70.1%)
Operating Margin	9.6 %	34.6 %	10.1 %		26.1 p.p.		(24.4 p.p.)
Share of income of investments accounted for by the equity method	2	(127)	217	c.s.	c.s.	344	c.s.
Net financial expense	(1,558)	(1,364)	(1,313)	194	(12.5%)	51	(3.7%)
PROFIT BEFORE TAX	2,583	12,095	2,960	9,512	368.2%	(9,135)	(75.5%)
Corporate income tax	(626)	(1,378)	(641)	(752)	120.0%	737	(53.5%)
PROFIT FOR THE YEAR	1,957	10,717	2,319	8,760	447.6%	(8,398)	(78.4%)
Attributable to equity holders of the parent	1,582	8,137	2,011	6,555	414.4%	(6,126)	(75.3%)
Attributable to non-controlling interests	375	2,580	308	2,205	587.4%	(2,272)	(88.0%)

c.s.: change of sign

Analysis of Results 2022 vs 2021

The Group's operating results in 2022, compared to 2021, have been impacted mainly by:

- **Changes in the scope of consolidation:** The main changes in 2022 and 2021 are the exclusion from the perimeter of consolidation of the entities that comprised our former Telefónica United Kingdom segment (after the incorporation of VMO2 in June 2021, the results for which are accounted for under the equity method, based on the Group's 50% stake), the towers divisions of Telxius Group (since their sale in June 2021), Telefónica de Costa Rica (since its sale in August 2021) and InfraCo, SpA in Chile (since the sale of a 60% interest therein in July 2021).
- **Capital gains/losses on sale of business,** which significantly decreased period-on-period. In 2022 Telefónica booked gains from the sale of fiber optic assets in Colombia (162 million euros) and in the United Kingdom (20 million euros) (see Notes 10 and 26 to the Consolidated Financial Statements). In 2021, Telefónica recorded capital gains generated by the sale of the tower divisions of the Telxius Group (6,099 million euros), the incorporation of VMO2 (4,460 million euros), the sale of 60% of the shares in InfraCo, SpA in Chile (274 million euros), the sale of Telefónica de Costa Rica (136 million euros) and the establishment of FiBrasil (26 million euros).

- **Foreign exchange effects:** Foreign exchange effects had a positive impact on our 2022 results compared with 2021, mainly due to the appreciation of the Brazilian real.
- **Restructuring costs:** The impact in 2022 and 2021 of restructuring costs (179 million euros in 2022 and 1,663 million euros in 2021), related mainly to the Individual Suspension Plan adopted under the Social Pact for Employment in Telefónica Spain in 2021.
- **Impairment of goodwill and other assets:** In 2022 the impairment of assets amounted to 77 million euros, in Telefónica Argentina. In 2021 the impairment of goodwill amounted to 416 million euros, mainly with respect to Telefónica del Perú.
- **Spectrum acquisition:** While spectrum acquisitions do not have an impact on operating income (except on amortizations), they affect CapEx and OIBDA-CapEx, which are discussed further below. In 2022, spectrum acquisitions amounted to 173 million euros of which 125 million euros corresponded to Telefónica Colombia, 35 million euros to Telefónica Brazil, 8 million euros to Telefónica Argentina and 5 million euros to Telefónica Uruguay. In 2021, spectrum acquisitions were significantly higher, amounting to 1,704 million euros of which 706 million euros corresponded to Telefónica Brazil, 515 million euros to our former Telefónica United Kingdom segment (which acquisitions took place before VMO2 was established), 352 million euros to Telefónica Spain and 131 million euros to Telefónica Chile.

Further, the Group's operating results in 2022 were impacted by the acquisition of the mobile assets of the Oi Group on April 20, 2022 for consideration of 1,093 million euros. See "Item 10. Additional Information—Material Contracts—Purchase Agreement for Acquisition of UPI Mobile Assets of Oi Group" for additional information. See also "Item 5. Operating and Financial Review and Prospects—Operating Results—Significant Factors Affecting the Comparability of Our Results of Operations in the Periods under Review".

Revenues in 2022 totaled 39,993 million euros, increasing 1.8% year-on-year, positively impacted by foreign exchange effects, mainly due to the appreciation of the Brazilian real against the euro (+4.5 p.p.), despite the changes in the consolidation perimeter (-7.1 p.p.) related mainly to the exclusion of the entities that comprised our former Telefónica United Kingdom segment since June 1, 2021. Revenue growth was also impacted by the positive growth in service revenues in Telefónica Brazil, Telefónica Germany and Telefónica Hispam.

Other income mainly includes gains on disposal of assets and capitalized costs on fixed assets. In 2022, other income totaled 2,065 million euros compared to 12,673 million euros recorded in 2021. In 2022, other income included the capital gains resulting from the sale of fiber optic assets in Colombia (162 million euros) and the sale of fiber optic assets in United Kingdom (20 million euros) (see Notes 10 and 26 to the Consolidated Financial Statements). In 2021, other income included the capital gains from the sale of the Telxius towers business (6,099 million euros), the establishment of VMO2 (4,460 million euros), the sale of 60% of the shares in InfraCo, SpA in Chile (274 million euros), the sale of Telefónica de Costa Rica to Liberty Global (136 million euros) and the establishment of FiBrasil (26 million euros).

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) was 29,206 million euros in 2022, down 2.5% year-on-year compared to 2021. This decrease was mainly attributable to the impact of changes in the scope of consolidation (-6.2 p.p.), mainly the exit of Telefónica United Kingdom from the perimeter on June 1, 2021, offset in part by the impact of changes in foreign exchange rates (+3.9 p.p.). The evolution of these expenses is explained in greater detail below:

- **Supplies** amounted to 12,941 million euros in 2022, up 5.6% year-on-year, mainly as a result of the impact of changes in foreign exchange rates (+3.3 p.p.) and of higher handset costs in all segments due to higher commercial activity, offset in part by the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021.

- **Personnel expenses** amounted to 5,524 million euros in 2022, down 18.0% year-on-year compared to 2021, mainly as a result of higher restructuring costs in 2021 in Telefónica Spain and of the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021.

The average headcount was 102,563 employees in 2022, down 4.8% compared to 2021, mainly as a result of the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021.

- **Other expenses** amounted to 10,741 million euros in 2022, down 2.1% year-on-year. This decrease was mainly attributable to the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021, partially offset by higher expenses in Spain and Germany.

As a result of the foregoing, OIBDA totaled 12,852 million euros in 2022, compared with 21,983 million euros in 2021. The period-on-period evolution was strongly impacted by the capital gains recorded in "Other income" from the transactions completed in 2021 (-49.2 p.p.) and changes in the scope of consolidation (-4.5 p.p.), partially offset by the lower restructuring costs in 2022 (+6.8 p.p.) and the positive exchange rate impact (+3.0 p.p.). OIBDA is a non-GAAP financial measure. For a reconciliation of OIBDA to operating income, see "*Item 5. Operating and Financial Review and Prospects- Non-GAAP Financial Information*".

Depreciation and amortization amounted to 8,796 million euros in 2022 increasing by 4.8% compared to 2021 mainly as a result of the impact of foreign exchange rates (+5.3 p.p.) as well as the changes in the consolidation perimeter (+1.3 p.p.) as a consequence of the sale of the towers communications division sale in 2021, which resulted in an increase in the amortization of rights of use.

Operating income (OI) totaled 4,056 million euros in 2022 compared to 13,586 million euros recorded in 2021. The period-on-period evolution was strongly impacted by the capital gains on the sale of businesses in 2021 mentioned above (-79.6 p.p.), the changes in the scope of consolidation (-8.2 p.p.) and the increase in depreciation and amortization.

The **share of income (loss) of investments** accounted for by the equity method in 2022 was an income of 217 million euros, compared to a loss of 127 million euros in 2021, mainly due to the respective results of VMO2, affected by changes in the fair value of derivatives.

Net financial expense amounted to 1,313 million euros in 2022, down 51 million euros compared to 2021, mainly due to extraordinary income related to the payment by the Spanish administration to the Group of delayed interest in connection with tax litigation in Spain, which more than offset the increase in the expenses due to the increase in interest rates and a higher level of debt denominated in Brazilian reais.

Corporate income tax amounted to 641 million euros in 2022, decreasing compared to 2021 (1,378 million euros) by 737 million euros. The y-o-y change is explained mainly by the extraordinary expenses recorded in 2021 (among others, the impact of the Spanish tax inspection closing), the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment since June 2021, the positive outcome of the tax inspection closing in Germany in 2022 and the corporate simplification carried out in Brazil in 2022.

As a result, **profit for the year attributable to equity holders of the parent** in 2022 was 2,011 million euros (8,137 million euros in 2021).

Profit attributable to non-controlling interests was 308 million euros in 2022 (compared to 2,580 million euros in 2021). The variation is mainly due to a decrease in profit attributable to non-controlling interests in Telxius, which completed the sale of its towers divisions in Europe and Latin America in 2021.

CapEx totaled 5,819 million euros in 2022, down 19.9% year-on-year, impacted by lower spectrum purchases in 2022 (-17.7 p.p.) and the change in the consolidation perimeter (-13.6 p.p.), partially offset by the exchange rates effect (+4.2 p.p.).

OIBDA-CapEx stood at 7,033 million euros in 2022, compared to 14,716 million euros in 2021 (-52.2%), strongly affected by the above mentioned capital gains from the sale of businesses in 2021 (-73.5 p.p.), partially offset by the positive effect of lower restructuring costs in 2022 (+10.1 p.p.), lower spectrum purchases (+8.8 p.p.), the recording of goodwill impairment in 2021 in a greater amount than asset impairments in 2022 (+2.1 p.p.) and foreign exchange effects (+2.4 p.p.).

Analysis of Results 2021 vs 2020

The Group's operating results in 2021, compared to 2020, have been impacted mainly by:

- **Changes in the consolidation perimeter:** The main changes compared to 2020 are the exclusion from the perimeter of consolidation of the entities that comprised our former Telefónica United Kingdom segment (after the incorporation of VMO2 in June 2021, the results for which are accounted for under the equity method, based on the Group's 50% stake), the towers divisions of Telxius Group (since their sale in June 2021), Telefónica de Costa Rica (since August 2021) and InfraCo, SpA in Chile (since the sale of a 60% interest therein in July 2021).
- **Gains or losses on the sale of companies:** In 2021, we recorded significant gains resulting from the establishment of VMO2 (4,460 million euros), the sale of the European and Latin American towers divisions of the Telxius Group (6,099 million euros), the establishment of FiBrasil (26 million euros), the sale of 60% of the shares in InfraCo, SpA (274 million euros) and the sale of Telefónica de Costa Rica (136 million euros). In 2020, we mainly recorded a gain of 29 million euros related to the initial registration at fair value of the stake of Telefónica in the joint venture with the Allianz Group for the deployment of fiber in Germany.
- **Foreign exchange effects:** Foreign exchange rates had a negative impact on our 2021 results, mainly due to the depreciation of the Brazilian real against the euro.
- **Restructuring costs:** Restructuring costs were significantly higher in 2021 (1,663 million euros) than in 2020 (86 million euros), as a result mainly of the Individual Suspension Plan adopted under the Social Pact for Employment in Telefónica Spain in 2021.
- **Impairment of goodwill and other assets:** In 2021 the Group recorded an impairment of goodwill amounting to 416 million euros, mainly relating to Telefónica Peru. In 2020, the Group recorded an impairment of goodwill and certain other assets of Telefónica Argentina, amounting to 894 million euros.
- **Spectrum acquisition:** While spectrum acquisitions do not have an impact on operating income (except on amortizations), they affect CapEx and OIBDA-CapEx, which are discussed further below. In 2021, spectrum acquisitions amounted to 1,704 million euros of which 706 million euros corresponded to Telefónica Brazil, 515 million euros to our former Telefónica United Kingdom segment (which acquisitions took place before VMO2 was established), 352 million euros to Telefónica Spain and 131 million euros to Telefónica Chile. In 2020, spectrum acquisitions amounted to 126 million euros of which 94 million euros corresponded to Telefónica United Kingdom and 32 million euros to Telefónica Brazil.

See also see "Item 5. Operating and Financial Review and Prospects—Operating Results—Significant Factors Affecting the Comparability of Our Results of Operations in the Periods under Review".

Revenues in 2021 totaled 39,277 million euros, decreasing by 8.8% year on year, mainly as a result of the changes in the consolidation perimeter (-9.1 p.p.), in particular, the constitution of VMO2 and the related exclusion from our consolidation perimeter of the entities that comprised our former Telefónica United Kingdom segment from that date, the sale of the towers divisions of Telxius Group and the sale of Telefónica de Costa Rica; and to a lesser extent, the evolution of foreign exchange rates (-2.3 p.p.) and, in particular, the depreciation against the euro of the Brazilian real, offset in part by the increase in handset sales and service revenues in Telefónica Germany and Telefónica Hispam.

Other income mainly included gains on the sale of assets and, to a lesser extent, own work capitalized in our fixed assets. In 2021, other income totaled 12,673 million euros compared to 1,587 million euros in 2020. This increase was mainly attributable to the gains resulting from the sale of the European and Latin American towers divisions of Telxius Group (6,099 million euros), the establishment of VMO2 (4,460 million euros), the sale of 60% of the shares in InfraCo, SpA (274 million euros), the sale of Telefónica de Costa Rica to Liberty Global (136 million euros) and the establishment of FiBrasil in Brazil (26 million euros).

The total amount of supplies, personnel expenses and other expenses was 29,967 million euros in 2021, down 3.8% year-on-year. This decrease was mainly attributable to the impact of changes in the scope of consolidation (-8.8 p.p.) and changes in foreign exchange rates (-2.2 p.p.), partially offset by the higher restructuring costs (+5.1 p.p.). The evolution of these expenses is explained in greater detail below:

- **Supplies** amounted to 12,258 million euros in 2021, down 5.8% year-on-year, as a result mainly of changes in the scope of consolidation (-11.0 p.p.) and, to a lesser extent, the impact of changes in foreign exchange

rates (-1.7 p.p.), offset in part by the higher TV content costs and higher costs related to IT sales in Telefónica Spain.

- **Personnel expenses** amounted to 6,733 million euros in 2021, up 27.5% year-on-year mainly as a result of the higher restructuring costs (+30.2 p.p.), mainly related to the Individual Suspension Plan in Spain, partially offset by the impact of changes in the scope of consolidation (-5.2 p.p.) and changes in foreign exchange rates (-2.2 p.p.).

The average headcount was 107,776 employees in 2021, down 4.8% compared to 2020, mainly as a result of the deconsolidation of the entities that comprised our former Telefónica United Kingdom segment in June 2021.

- **Other expenses** (principally external services and, to a significantly lesser extent, taxes other than income tax) amounted to 10,976 million euros in 2021, down 14.7% year-on-year. This decrease was mainly attributable to the impact of changes in the scope of consolidation (-7.9 p.p.), the impact of foreign exchange rates (-2.7 p.p.) and the positive impact of the judicial decisions of the Brazilian Supreme Court recognizing the right to deduct the state tax on goods and services (ICMS) from the calculation of the basis of the Social Integration Program-PIS (Programa de Integração Social) and the Financing of Social Security- COFINS (Contribuição para Financiamento da Seguridade Social) (243 million euros in 2021).

As a result of the foregoing, OIBDA totaled 21,983 million euros in 2021, compared with 13,498 million euros in 2020, significantly impacted by the gains from the transactions recorded in "Other income". OIBDA increased in Telefónica Germany and Telefónica Hispam due to revenues growth.

Depreciation and amortization amounted to 8,397 million euros in 2021, decreasing by 10.3% compared to 2020 mainly as a result of changes in the consolidation perimeter (-4.1 p.p.), mainly due to the recognition of the entities that comprised our former Telefónica United Kingdom segment as a disposal group held for sale in May 2020, the impact of foreign exchange rates (-2.6 p.p.) and the impact of the accelerated amortization related to the transformation of the operating model of Telefónica México, which affected 2020 to a greater extent (-2.5 p.p.).

Operating income (OI) in 2021 totaled 13,586 million euros, compared with 4,139 million euros in of 2020, significantly impacted by the gains recorded in "Other income" (+264.9 p.p.). To a much lesser extent, the year-on-year increase was explained by the impairment of goodwill and other assets in Telefónica Argentina in 2020, which exceeded the amount of the impairment in Telefónica del Perú in 2021 (+11.5 p.p.), the judicial decisions of the Brazilian Supreme Court recognizing the right to deduct the state tax on goods and services (ICMS) from the calculation of the basis of the Social Integration Program-PIS (Programa de Integração Social) and the Financing of Social Security- COFINS (Contribuição para Financiamento da Seguridade Social) (+6.4 p.p.) and the impact of the accelerated amortization related to the transformation of the operating model of Telefónica México, following the AT&T agreement in 2020 (+5.6 p.p.). The year-on-year increase was partially offset by the higher restructuring costs, which were mainly related to the Individual Suspension Plan in Spain in 2021 (-38.2 p.p.), which totaled 1,382 million euros, changes in the consolidation perimeter (-21.6 p.p.), the provision for contingencies in Telefónica Brazil (-4.1 p.p.) and the foreign exchange effects (-3.0 p.p.).

The **share of income (loss) of investments** accounted for by the equity method for 2021 was a loss of 127 million euros, compared to income of 2 million euros in 2020, mainly due to the results of VMO2 (which was established on June 1, 2021).

Net financial expense amounted to 1,364 million euros in 2021, decreasing by 194 million euros compared to 2020 due to the reduction of debt in European currencies (despite the increase in interest rates in Brazil and higher level of debt denominated in Brazilian reals) as well as other non-recurrent positive effects.

Corporate income tax amounted to 1,378 million euros in 2021, increasing from 2020 (626 million euros) due mainly to the accounting effect of the tax assessments resulting from the tax inspection in Spain (see "Item 8. Financial Information - Consolidated Financial Statements - Tax Proceedings - Inspections in the tax group in Spain"), a decrease in deferred tax assets in Spain due to the restatement of their recoverability, provision in Peru due to unfavorable ruling by the Supreme Court (see "Item 8. Financial Information - Consolidated Financial Statements - Tax Proceedings - Telefónica del Perú") and adjustments for tax rates changes. The increase was

partially offset by the provision recorded in Spain in connection with the Individual Suspension Plan and non-taxable interests in Brazil. A substantial portion of the capital gains obtained in 2021 were exempt from corporate tax.

As a result, **profit for the year attributable to equity holders of the parent** for 2021 was 8,137 million euros (1,582 million euros in 2020).

Profit attributable to non-controlling interests was 2,580 million euros in 2021(375 million euros in 2020) mainly as a result of profit attributable to non-controlling interests in Telxius, which completed the sale of the towers divisions in Europe and Latin America in 2021.

CapEx were 7,267 million euros in 2021, increasing 24.0% year on year as a result of the spectrum purchase mainly in Telefónica Brazil (706 million euros), our former Telefónica United Kingdom segment (515 million euros in the first five months of 2021), Telefónica Spain (352 million euros) and Telefónica Chile (131 million euros). CapEx in 2020 was limited due to the COVID-19 pandemic.

OIBDA-CapEx was 14,716 million euros in 2021, compared to 7,637 million euros in 2020, increasing by 92.7% y-o-y.

Segment results

For information on how segment information is presented in this Report, see “—History and Development of the Company—Business areas”.

TELEFÓNICA SPAIN

The table below shows the evolution of accesses in Telefónica Spain over the past three years as of December 31 of such years:

ACCESSES

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Fixed telephony accesses ⁽¹⁾	8,731.0	8,376.3	8,102.3	(4.1%)	(3.3%)
Broadband	5,961.9	5,874.9	5,854.5	(1.5%)	(0.3%)
FTTH	4,614.1	4,847.6	5,042.2	5.1%	4.0%
Mobile accesses	18,977.8	18,484.6	19,347.3	(2.6%)	4.7%
Prepay	888.1	752.5	796.0	(15.3%)	5.8%
Contract	15,383.7	15,210.7	15,099.5	(1.1%)	(0.7%)
IoT ⁽²⁾	2,706.0	2,521.5	3,451.8	(6.8%)	36.9%
Pay TV	3,934.5	3,716.4	3,526.3	(5.5%)	(5.1%)
Retail Accesses	37,615.1	36,460.9	36,838.9	(3.1%)	1.0%
Wholesale Accesses	3,689.5	3,674.3	3,653.6	(0.4%)	(0.6%)
FTTH Wholesale Accesses	2,599.8	2,982.0	3,206.1	14.7%	7.5%
Total Accesses	41,304.6	40,135.2	40,492.6	(2.8%)	0.9%

Notes:

⁽¹⁾ Includes "fixed wireless" and Voice over IP accesses.

⁽²⁾ Accesses in 2022 include an upward revision of approximately 500 thousand IoT accesses recorded in March 2022.

In May 2022, we launched miMovistar, a new global portfolio for the general public through which customers will be able to choose the products and services they need in a simple, customizable and flexible way. The proposal is the natural evolution of Movistar Fusión, Movistar's benchmark product over the last ten years.

The portfolio starts with connectivity (Internet, voice and data), to which, if the customer wishes, modules can be added to include a television content offer and value-added services such as, initially, health, gaming and security, to build the most complete and adapted formula that the customer wants. The company plans to integrate in the future more services within the miMovistar ecosystem, such as Movistar Car/Moto, Movistar Money, Home Insurance, Energy, as well as additional connectivity options.

With this new move, Telefónica Spain responds to the needs derived from the transformation of the market and a consumer who demands flexibility and personalization, both in connectivity services and in content or services relevant to his life, while being able to control costs.

In addition, each of the miMovistar connectivity options also includes a device at no cost to the customer, whose catalog depends on their choice and includes, in addition to smartphones, smart TVs, tablets, laptops or smart watches.

Existing Movistar Fusión customers can choose to continue with their current tariff or switch to miMovistar and adapt it to what they choose.

Telefónica Spain's investment in the 5G mobile network made it possible to achieve 85% of population coverage as of December 31, 2022.

Additionally, in 2022, Telefónica Spain has continued to improve its offer proposals to strengthen its relationship with customers and reach new segments, highlighting:

- **Solar 360**, a joint venture of Repsol and Telefónica Spain formed to develop a solar self-consumption business. The new company started to operate in June 2022, offering a comprehensive self-consumption solution to private customers, communities of neighbors and companies, SMEs, and large companies, through solar panel installation.

- **Movistar Prosegur Alarmas**, a joint venture of Prosegur and Telefónica Spain, reached 445 thousand customers as of December 31, 2022.

Accesses 2022 vs 2021

Telefónica Spain had 40.5 million **accesses** as of December 31, 2022, an increase of 0.9% as compared to December 31, 2021, due to an increase in the IoT accesses base.

The **convergent offer** (residential and SMEs) had a customer base of 4.5 million customers as of December 31, 2022, a decrease of 2.2% y-o-y.

Retail fixed accesses totaled 8.1 million and decreased 3.3% as compared to December 31, 2021, with a net loss of 274 thousand accesses as of December 31, 2022.

Retail broadband accesses totaled 5.9 million (-0.3% y-o-y), with a net loss of 20 thousand accesses as of December 31, 2022.

Retail fiber (FTTH) accesses reached 5.0 million customers (+4.0% as compared to December 31, 2021), representing 86.1% of total retail broadband customers (+3.6 p.p. y-o-y) with net adds of 195 thousand accesses as of December 31, 2022. At December 31, 2022, fiber deployment reached 28.0 million premises, 1.1 million more than at December 31, 2021.

Total retail mobile accesses stood at 19.3 million as of December 31, 2022, an increase of 4.7% as compared to December 31, 2021 as a result of an increase in the IoT accesses base (+36.9% y-o-y impacted by an upward revision recorded in March 2022 figures, in an amount of 500 thousand accesses) and prepay accesses (+5.8% y-o-y), with a decrease in mobile contract accesses (-0.7% y-o-y).

Pay TV accesses reached 3.5 million at December 31, 2022, decreasing 5.1% year-on-year due to a higher penetration of customers in service bundles that do not include TV.

Wholesale accesses stood at 3.7 million at December 31, 2022, down 0.6% year-on-year, and wholesale fiber (FTTH) accesses were up 7.5% year-on-year (87.8% of total wholesale accesses at December 31, 2022 compared with 81.2% at December 31, 2021).

Accesses 2021 vs 2020

Telefónica Spain had 40.1 million **accesses** as of December 31, 2021, a decline of 2.8% as compared to December 31, 2020, partly driven by a commercial policy focused on generating value and promoting higher market rationalization by reducing promotional activity, which had an impact on commercial activity.

The **convergent offer (residential and SMEs)** had a customer base of 4.6 million customers as of December 31, 2021, a decrease of 3.6% y-o-y.

Retail fixed accesses totaled 8.4 million and decreased 4.1% as compared to December 31, 2020, with a net loss of 355 thousand accesses in 2021.

Retail broadband accesses totaled 5.9 million (-1.5% y-o-y), with a net loss of 87 thousand accesses during 2021.

Retail fiber (FTTH) accesses reached 4.8 million customers (+5.1% as compared to December 31, 2020), representing 82.5% of total retail broadband customers (+5.1 p.p. y-o-y) with net adds of 234 thousand accesses in 2021. At December 31, 2021, fiber deployment reached 26.9 million premises, 1.7 million more than at December 31, 2020.

Total retail **mobile accesses** stood at 18.5 million as of December 31, 2021, a decrease of 2.6% as compared to December 31, 2020 as a result of a decrease in both mobile contract accesses (-1.1% y-o-y) and prepay accesses (-15.3% y-o-y).

Pay TV accesses reached 3.7 million at December 31, 2021, decreasing 5.5% year-on-year.

Wholesale accesses stood at 3.7 million at December 31, 2021, down 0.4% year-on-year, although wholesale fiber (FTTH) accesses (81.2% of total wholesale accesses at December 31, 2021 compared with 70.5% at December 31, 2020) were up 14.7% year-on-year.

The table below shows Telefónica Spain's results over the past three years:

Millions of euros					
TELEFÓNICA SPAIN	2020	2021	2022	% YoY 21/20	% YoY 22/21
Revenues	12,401	12,417	12,497	0.1%	0.6%
Mobile handset revenues	264	400	548	51.3%	37.4%
Revenues ex-mobile handset sales	12,137	12,017	11,948	(1.0%)	(0.6%)
Retail	9,906	9,699	9,662	(2.1%)	(0.4%)
Wholesale and Other	2,231	2,318	2,286	3.9%	(1.4%)
Other income	540	664	803	23.1%	20.9%
Supplies	(4,210)	(4,636)	(5,008)	10.1%	8.0%
Personnel expenses	(1,748)	(3,201)	(1,765)	83.1%	(44.9%)
Other expenses	(1,937)	(1,867)	(1,939)	(3.6%)	3.9%
OIBDA	5,046	3,377	4,588	(33.1%)	35.9%
Depreciation and amortization	(2,184)	(2,153)	(2,157)	(1.4%)	0.2%
Amortization of intangible assets, depreciation of property, plant and equipment	(1,892)	(1,807)	(1,747)	(4.5%)	(3.3%)
Amortization of rights of use	(292)	(346)	(410)	18.6%	18.3%
Operating income (OI)	2,862	1,224	2,431	(57.2%)	98.6%
CapEx	1,408	1,815	1,550	28.9%	(14.6%)
OIBDA-CapEx	3,638	1,562	3,038	(57.1%)	94.5%

Analysis of results 2022 vs 2021

Revenues in 2022 amounted to 12,497 million euros, growing 0.6% y-o-y. This trend was supported by the continued growth of mobile handset revenues, due to the inclusion in the portfolio of several devices as part of the packages (including 5G smartphones of different brands, smart TVs, tablets and laptops, among others). The evolution of revenues excluding mobile handset sales is described below:

- **Retail revenues** totaled 9,662 million euros in 2022, decreasing by 0.4% year-on-year, due in part to the customer base decline, partially offset by higher IT revenues due to the higher demand for digitalization projects in the B2B segment.
- **Wholesale and other revenues** totaled 2,286 million euros in 2022, decreasing by 1.4% year-on-year, due mainly to the decrease in fixed traffic revenues, mobile interconnection revenues due to lower mobile termination rates, and the impact of less "La Liga" content available in the wholesale offer since mid-August. These have been partially offset by the recovery in roaming-in revenues to pre-pandemic levels and the growth of revenues from MVNOs.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 8,712 million euros in 2022, down 10.2% year-on-year compared to 2021. The year-on-year evolution was mainly attributable to the restructuring costs recorded in 2021 (1,382 million euros).

- **Supplies** amounted to 5,008 million euros in 2022, up 8.0% year-on-year compared to 2021, mainly attributable to higher handset costs in the year (from commercial campaigns offering free devices) as well as the costs related to IT revenue growth.
- **Personnel expenses** amounted to 1,765 million euros in 2022, down 44.9% year-on-year compared to 2021. The year-on-year evolution was mainly attributable to the restructuring costs in 2021, mainly related to the Individual Suspension Plan (1,382 million euros).
- **Other expenses** amounted to 1,939 million euros in 2022, up 3.9% year-on-year compared to 2021, mainly attributable to higher energy costs.

OIBDA reached 4,588 million euros in 2022, a year-on-year increase of 35.9%.

Depreciation and amortization amounted to 2,157 million euros in 2022, increasing by 0.2% year-on-year.

Operating income amounted to 2,431 million euros in 2022, a year-on-year increase of 98.6%. Operating income was adversely affected in 2021 by restructuring costs totaling 1,382 million euros (related mainly to the Individual Suspension Plan) and the provisions recorded in Telefónica Spain totaling 44 million euros in connection with the restructuring of the distribution channels. In 2022, a restructuring provision of 57 million euros was recorded in Telefónica Spain.

Analysis of results 2021 vs 2020

Revenues in 2021 amounted to 12,417 million euros, growing 0.1% y-o-y. This trend was supported by handset revenues due to the launching of the new Fusion portfolio, as the new portfolio included several devices as part of the packages (including 5G smartphones of different brands, smart TVs, tablets and laptops, among others). The evolution of revenues excluding mobile handset sales is described below:

- **Retail revenues** totaled 9,699 million euros in 2021, decreasing by 2.1% year-on-year, due in part to the customer base decline and convergent customer value mix erosion (mainly due to the worsening of economic conditions as a result of the COVID-19 pandemic), partially offset by higher IT revenues due to the higher demand for digitalization projects in the B2B segment.
- **Wholesale and other revenues** totaled 2,318 million euros in 2021, increasing by 3.9% year-on-year, due, among others, to a recovery in roaming-in revenues.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 9,704 million euros in 2021, up 22.9% year-on-year. This increase was mainly attributable to restructuring costs in 2021 (1,382 million euros).

- **Supplies** amounted to 4,636 million euros in 2021, up 10.1% year-on-year compared to 2020. This increase was mainly attributable to higher handset costs in the year as well as the costs related to IT revenue growth.
- **Personnel expenses** amounted to 3,201 million euros in 2021, up 83.1% year-on-year compared to 2020. This increase was mainly attributable to a restructuring cost in 2021 (1,382 million euros) related mainly to the Individual Suspension Plan adopted under the Social Pact for Employment in Telefónica Spain in 2021.
- **Other expenses** amounted to 1,867 million euros in 2021, down 3.6% year-on-year compared to 2020. This decrease was mainly attributable to commercial, network and systems' efficiencies partially offset by higher energy costs.

OIBDA reached 3,377 million euros in 2021, a year-on-year decrease of 33.1%.

Depreciation and amortization amounted to 2,153 million euros in 2021, decreasing by 1.4% year-on-year, mainly as a result of an acceleration of the decommissioning of central offices and the change in the depreciation period of radio-links.

Operating income amounted to 1,224 million euros in 2021, a year-on-year decrease of 57.2%. The year-on-year decrease was mainly driven by the restructuring costs provision in 2021, the lower service revenues and the impact of the higher energy costs for most of the year.

VMO2

After receiving the final approval from the UK Competition & Markets Authority (CMA), the joint venture between Liberty Global and Telefónica was established on June 1, 2021, and our former Telefónica United Kingdom segment was replaced by the new VMO2 segment. Telefónica ceased to fully consolidate the results of the entities that composed our former Telefónica United Kingdom segment in its consolidated financial statements and started to account for VMO2's results under the equity method. Therefore, since June 1, 2021, for purposes of the Group's consolidated results, the results of VMO2 are reflected under a single heading of the consolidated income statement, "Share of income of investments accounted for by the equity method". However, the VMO2 segment information included in this section is presented under management criteria, and shows 100% of the VMO2's results; Telefónica's actual percentage ownership of VMO2 is 50%.

Since it is not practicable to restate the historical segment financial information to reflect this change, the segment discussions included in this section consist of (i) for purposes of the 2022-2021 period-on-period discussions, an analysis of the results of our VMO2 segment (which, for purposes of 2022, consists of the results obtained by VMO2 from January 1 to December 31, 2022, and, for purposes of 2021, consists of the results obtained by VMO2 from June 1 (the date on which VMO2 was established) to December 31, 2021), and (ii) for purposes of the 2021-2020 period-on-period discussions, an analysis of the results of our former Telefónica United Kingdom segment (which, for purposes of 2021, consists of the results obtained in the first five months of the year, until the establishment of VMO2 and the elimination of this segment). For additional information, see "—History and Development of the Company—Business areas", "Item 5. Operating and Financial Review and Prospects—Operating Results—Significant Factors Affecting the Comparability of Our Results of Operations in the Periods under Review", and "Item 10. Additional Information—Material Contracts—Creation of 50:50 joint venture with Liberty Global for the combination of both groups' businesses in the United Kingdom".

More than one year after the formation of VMO2, the company continues to integrate and innovate while investing heavily to expand and upgrade its fiber and 5G networks to provide the highest quality connectivity to more regions of the country.

The FTTP speed upgrade of the existing network is accelerating after the completion of tests in the first quarter of 2022, paving the way for the planned deployment of fiber throughout the fixed network, which began in the fourth quarter of 2022 and is expected to be completed by 2028.

The "Lightning" project rollout now totals 2.9 million accesses, further reinforcing VMO2's gigabit leadership in the UK with speeds of 1.1 Gbps offered across its entire footprint of 16.1 million premises passed.

On July 29, 2022, T. Infra, Liberty Global plc ("Liberty Global") and InfraVia Capital Partners ("InfraVia") reached an agreement for the establishment of a joint venture that will deploy fiber-to-the-home (FTTH) to 5 million homes in the United Kingdom currently not reached by VMO2's network, with potential for expansion to an additional 2 million homes. The fiber network will offer wholesale FTTH access to telecommunications service providers, with VMO2 acting as the lead customer, as well as providing a range of technical services. Liberty Global and Telefónica jointly hold a 50% stake in the joint venture through a holding company, with InfraVia owning the remaining 50%.

VMO2 launched the "Better Connections Plan", its first sustainability strategy as a joint business, in May 2022 with a commitment to reduce carbon emissions, champion the circular economy, such as recycling devices and donating smartphones and tablets, and giving back to the community. The company has an ambitious target to achieve net zero carbon emissions across its operations, products and supply chain by the end of 2040, 10 years ahead of the Paris Agreement and the UK's target of net zero emissions by 2050.

The table below shows the evolution of accesses of VMO2 (or, with respect to 2020, the aggregated accesses of our former Telefónica United Kingdom segment and Virgin Media), in each case as of December 31 of such years.

ACCESSES ⁽¹⁾

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Broadband	5,449.5	5,626.7	5,661.6	3.3%	0.6%
UBB	5,420.3	5,596.8	5,653.8	3.3%	1.0%
Mobile accesses	30,336.6	32,276.8	33,831.3	6.4%	4.8%
Prepay	8,251.8	8,119.1	7,968.3	(1.6%)	(1.9%)
Contract	15,594.2	15,938.1	16,087.6	2.2%	0.9%
IoT	6,490.6	8,219.7	9,775.5	26.6%	18.9%
Retail Accesses	44,067.7	46,021.1	46,926.8	4.4%	2.0%
Wholesale Accesses	9,210.9	9,966.6	10,818.6	8.2%	8.5%
Total Accesses	53,278.6	55,987.8	57,745.4	5.1%	3.1%

⁽¹⁾ The access information provided as of December 31, 2022 and December 31, 2021 includes 100% of the accesses of VMO2. Telefónica's actual percentage ownership of VMO2 is 50%. The access information provided as of December 31, 2020 includes the accesses of our former Telefónica United Kingdom segment and Virgin Media as of such date.

Accesses 2022 vs 2021

The **total accesses base** grew 3.1% year-on-year and stood at 57.7 million as of December 31, 2022, mainly driven by the increase in the mobile accesses base, which grew 4.8% year-on-year and reached 33.8 million accesses.

The **contract mobile customer base** grew 0.9% year-on-year and reached 16.1 million accesses adding 149.5 thousand new accesses to the base in 2022. Churn remained stable at low levels.

The **prepay mobile customer base** decreased 1.9% year-on-year and totaled 8.0 million accesses declining 150.8 thousand accesses to the base in 2022.

IoT mobile customer base grew 18.9% year-on-year and reached 9.8 million accesses underpinned by the Smart Metering Programme roll out.

The fixed broadband base grew 0.6% year-on-year and reached 5.7 million accesses, adding 34.9 thousand new accesses in 2022. UBB accesses grew 1.0% year-on-year with a net gain of 57.0 thousand new accesses in 2022, supported by the increase in customer demand for higher speeds. The company's average broadband speed is 301 Mbps and increased 41% year-on-year, five times higher than the national average.

Accesses 2021 vs 2020

The **total accesses base** grew 5.1% year-on-year and stood at 56.0 million at December 31, 2021, mainly driven by a 6.4% increase in the mobile accesses base, which reached 32.3 million.

The **contract mobile customer base** grew 2.2% year-on-year and reached 15.9 million accesses adding 344 thousand new accesses to the base as a result of the increasing normalization of commercial activity as COVID-19 restrictions progressively eased.

The **prepay mobile customer base** decreased 1.6% year-on-year and reached 8.1 million accesses losing 133 thousand accesses in 2021.

IoT mobile customer base grew 26.6% year-on-year and reached 8.2 million accesses as the Smart Metering Programme (one of the largest IoT projects in the world) roll out regained pace.

Fixed broadband base grew 3.3% year-on-year and reached 5.6 million accesses adding 177 thousand new accesses to the base in 2021 reflecting continued demand for faster broadband speeds.

The table below shows the evolution of the VMO2 segment's results over the past two years (which, for the purposes of 2022, consists of the results obtained by VMO2 from January 1 to December 31, 2022, and, for the purposes of 2021, consists of the results obtained by VMO2 from June 1 (the date on which VMO2 was established) to December 31, 2021):

Millions of euros

	June 1 to December 31, 2021	January 1 to December 31, 2022
VMO2		
Revenues	7,223	12,155
Mobile Business	4,122	6,938
Handset revenues	1,234	1,894
Fixed Business	2,782	4,639
Other	319	578
Other income	290	551
Supplies	(2,601)	(4,019)
Personnel expenses	(786)	(1,348)
Other expenses	(1,676)	(2,938)
OIBDA	2,450	4,401
Depreciation and amortization	(2,395)	(4,170)
Operating income (OI)	55	231
Share of income (loss) of investments accounted for by the equity method	—	1
Financial income	27	24
Financial expenses	(504)	(1,020)
Realized and unrealized gains on derivate instruments, net ⁽¹⁾	489	2,567
Foreign currency transaction losses, net	(367)	(1,296)
Net financial expense	(355)	275
Result before taxation	(300)	507
Result for the period	(235)	492
CapEx	1,508	2,707
OIBDA-CapEx	942	1,694

Notes:

⁽¹⁾ VMO2 entered into various derivative instruments to manage interest rate exposure and foreign currency exposure. Generally, VMO2 does not apply hedge accounting to its derivative instruments. Accordingly, changes in the fair values of most of its derivatives are recorded in the finance results of its consolidated income statement.

Analysis of results 2022 vs 2021

Year-on-year changes are mainly explained by the fact that the VMO2 segment's results for 2022 include VMO2's results for the full year, whereas the VMO2 segment's results for 2021 include VMO2's results for seven months only. Further, the 2021 results were adversely affected by restructuring and integration costs incurred in connection with the incorporation of VMO2. Since both periods are not entirely comparable, the below explanations discuss the drivers of the 2022 and 2021 results separately.

In 2022, **revenues** amounted to 12,155 million euros supported by the price increase in fixed and mobile businesses alongside with synergies realization, offset in part by the impact of the macroeconomic downturn.

- **Mobile Revenues** amounted to 6,938 million euros in 2022 and included 1,894 million euros from handset sales, which were impacted by the current macroeconomic environment, mitigated in part by price increases and the recovery of roaming revenues.
- **Fixed business revenues** amounted to 4,639 million euros in 2022, impacted by the decline in fixed-line ARPU driven in part by the increasing cost-of-living, partially mitigated by price increases.
- **Other revenues** amounted to 578 million euros in 2022 driven by the roll out of SMIP (Smart metering programme) and other digital products.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) was 8,305 million euros in 2022, impacted by the realization of synergies and other cost efficiencies that resulted from the formation of the joint venture, which helped to offset inflationary tendencies.

- **Supplies** amounted to 4,019 million euros in 2022, positively impacted by the realization of synergies, mainly due to the migration of the Virgin Mobile MVNO contract coupled with other cost efficiencies.
- **Personnel expenses** amounted to 1,348 million euros in 2022, positively impacted by the realization of synergies that resulted from the formation of the joint venture, through the execution of restructuring plans aiming to deliver a single operating model and a leaner company.
- **Other expenses** amounted to 2,938 million euros in 2022, impacted by inflationary tensions, mainly by the increase in energy prices.

OIBDA in 2022 reached 4,401 million euros.

Depreciation and amortization amounted to 4,170 million euros in 2022.

Operating income (OI) amounted to 231 million euros in 2022 underpinned by price rises in fixed and mobile businesses and cost efficiencies and synergies, mitigating the impact of inflation.

For the period from June 1 to December 31, 2021, total **revenues** amounted to 7,223 million euros, reflecting the combination of the fixed and mobile products and services brought together for United Kingdom customers by Telefónica United Kingdom and Virgin Media.

OIBDA totaled 2,450 million euros for the period from June 1 to December 31, 2021 and was adversely impacted by the restructuring and other integration costs.

Depreciation and amortization totaled 2,395 million euros for the period from June 1 to December 31, 2021.

Operating income totaled 55 million euros for the period from June 1 to December 31, 2021.

The table below shows the reconciliation between VMO2's results and the share of income (loss) of investments accounted for by equity method in Telefónica:

Millions of euros	June 1 to December 31, 2021	January 1 to December 31, 2022
Result for the period (100% VMO2)	(235)	492
50% attributable to Telefónica Group	(117)	246
Share-based compensation ⁽¹⁾	14	14
Other adjustments	—	32
Share of income (loss) of investments accounted for by the equity method	(103)	292

⁽¹⁾ Amount related to incentive awards held by certain employees of VMO2 associated with ordinary shares of Liberty Global and Telefónica. Share-based compensation expense is included in Operating expenses in the consolidated income statement of VMO2.

TELEFÓNICA UNITED KINGDOM

The table below shows the evolution of Telefónica United Kingdom's results over 2020 and 2021 (which, for purposes of 2021, consists of the results obtained in the first five months of the year, until the establishment of VMO2 and the elimination of this segment):

Millions of euros			
TELEFÓNICA UNITED KINGDOM			
	2020	2021 (1)	% YoY
Revenues	6,708	2,628	(60.8%)
Mobile Business	6,476	2,532	(60.9%)
Handset revenues	1,816	642	(64.7%)
Fixed Business	232	96	(58.9%)
Other income	178	73	(59.1%)
Supplies	(2,456)	(910)	(62.9%)
Personnel expenses	(459)	(205)	(55.4%)
Other expenses	(1,907)	(667)	(65.0%)
OIBDA	2,064	919	(55.5%)
Depreciation and amortization	(389)	—	(99.9%)
Amortization of intangible assets, depreciation of property, plant and equipment	(322)	—	(99.9%)
Amortization of rights of use	(67)	—	(100.0%)
Operating income (OI)	1,675	919	(45.1%)
CapEx	913	933	2.2%
OIBDA-CapEx	1,151	(14)	c.s.

Notes:

(1) As stated above, this includes the results of our former Telefónica United Kingdom segment until its elimination on June 1, 2021 (i.e., this shows the results obtained by this segment in the first five months of the year). This significantly affects the comparability of 2021 and 2020 results for this segment.

c.s.: change of sign

Analysis of results

Total revenues in 2021 amounted to 2,628 million euros, decreasing by 60.8% year-on-year due to the deconsolidation of our UK business since June 1, 2021 (-57.8 p.p.) Excluding this impact, total revenues decreased by 7.0% driven by the lockdown in the United Kingdom (from January to April 2021) and the change in the distribution model as a consequence of the end of the contract with Dixons Carphone in March 31, 2020, which resulted in changes in the mobile revenues allocation.

- **Mobile business revenues** reached 2,532 million euros in 2021, decreasing by 60.9% due to the change in the scope of consolidation (-57.8 p.p.). Excluding this impact, mobile business revenues decreased by 7.2% as a result of the lower handset sales due to the lockdown in the United Kingdom, which resulted in the closing of commercial shops in the first half of 2021, lower roaming revenues due to the travel-related restrictions implemented in connection with the COVID-19 pandemic and the change in the distribution model as a consequence of the end of the contract with Dixons Carphone in March 31, 2020.

OIBDA totaled 919 million euros in 2021, decreasing by 55.5% compared to 2020.

Operating income amounted to 919 million euros in 2021, decreasing 45.1%, due to the impact of the change in the scope of consolidation (-50.4 p.p.) and, to a much lesser extent, the foreign exchange effects (-0.1 p.p.). Excluding these impacts, the operating income year-on-year increased 26.2% thanks to a strict control of costs, as well as the positive impact of the change in the distribution model on expenses, which resulted in a decrease in the commissions paid by Telefónica United Kingdom.

TELEFÓNICA GERMANY

The table below shows the evolution of accesses in Telefónica Germany over the past three years as of December 31 of such years:

ACCESSES

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Fixed telephony accesses ⁽¹⁾	2,180.2	2,179.6	2,211.6	0.0%	1.5%
Broadband	2,261.1	2,262.3	2,294.2	0.1%	1.4%
UBB	1,797.8	1,856.8	1,939.1	3.3%	4.4%
Mobile accesses	44,274.8	45,693.6	44,306.6	3.2%	(3.0%)
Prepay	19,283.3	18,973.0	16,274.8	(1.6%)	(14.2%)
Contract	23,581.3	25,107.8	26,336.2	6.5%	4.9%
IoT	1,410.1	1,612.8	1,695.7	14.4%	5.1%
Retail Accesses	48,804.7	50,219.3	48,891.6	2.9%	(2.6%)
Total Accesses	48,804.7	50,219.3	48,891.6	2.9%	(2.6%)

Notes:

⁽¹⁾ Includes "fixed wireless" and Voice over IP accesses.

In 2022, Telefónica Germany delivered strong operational and financial momentum. The company continues to expand its mobile market share in a rational yet dynamic environment on the back of core business strength building on strong O2 brand appeal including strong customer demand for the innovative "O2 Grow" tariff, network parity and ESG leadership.

Telefónica Germany's key milestones in 2022 were as follows:

- Sustained commercial momentum, with 1.2 million new clients in contract driven by O2 Free portfolio and strong traction of the successful tariff innovation "O2 Grow".
- Telefónica Germany successfully completed its three-year "Investment for Growth" program, making strong progress with network modernization and 5G roll-out as well as fulfilling the coverage obligations of the German regulator. Telefónica Germany's 5G population coverage stood higher than 80% at year end, significantly over-achieving its initial target. The company aims for more than 90% coverage by year-end 2023 and believes it is on track to offer nationwide 5G coverage by no later than year-end 2025.

Accesses 2022 vs 2021

The **total access base** decreased 2.6% year-on-year and stood at 48.9 million at December 31, 2022, mainly driven by a 3.0% decrease in the mobile accesses base, which reached 44.3 million.

The **contract mobile customer base** grew 4.9% year-on-year and reached 26.3 million accesses, increasing the share over the total mobile accesses base to 59.4%. Net adds reached 1.2 million accesses driven by high O2 brand appeal thanks to the O2 Free tariff portfolio's gross add momentum in the market and the continued solid contribution of partner brands. Churn was 1.3% in 2022 (+0.1 p.p. y-o-y) leveraging network and service quality and commercial success despite being impacted by the European Electronic Communications Code (EECC) introduction, as a result of which contract customers can terminate their contracts at any time.

The **prepay mobile customer base** decreased 14.2% year-on-year to 16.3 million accesses. This decrease was driven mainly by a combination of a technical base adjustment in December 2022 (which was revenue neutral) following the introduction of a stricter active SIM card definition and the ongoing German market trend of prepaid to postpaid migration leading to a net loss of 2.7 million prepay customers in 2022.

Broadband accesses reached 2.3 million accesses (up 1.4% y-o-y), with a net add of 31.9 thousand accesses in 2022, reflecting the success of the "O2 myHome" tariff portfolio with high-speed cable and fiber connections as well as FMS (Fixed Mobile Substitution) driving customer demand.

Accesses 2021 vs 2020

The **total access base** grew 2.9% year-on-year and stood at 50.2 million at December 31, 2021, mainly driven by a 3.2% increase in the mobile accesses base, which reached 45.7 million.

The **contract mobile customer base** grew 6.5% year-on-year and reached 25.1 million accesses, increasing the share over the total mobile accesses base to 54.9%. Net adds reached 1.5 million accesses, driven by the sustained customer demand for the O2 Free portfolio and a solid contribution from partner brands. Churn remained at a historic low.

The **prepay mobile customer base** decreased 1.6% year-on-year to 19.0 million accesses. Reflecting the unchanged market trend of prepaid to postpaid migration, the prepay segment posted a net loss of 310 thousand customers in 2021.

The **Broadband accesses** reached 2.3 million accesses (up 0.1% y-o-y), with a net add of 1.2 thousand accesses in 2021, in a market focused on high-speed fixed connectivity.

The table below shows the evolution of Telefónica Germany's results over the past three years:

Millions of euros

TELEFÓNICA GERMANY	2020	2021	2022	% YoY 21/20	% YoY 22/21
Revenues	7,532	7,765	8,224	3.1%	5.9%
Mobile Business	6,730	6,942	7,394	3.2%	6.5%
Handset revenues	1,423	1,450	1,652	1.9%	13.9%
Fixed Business	785	814	806	3.6%	(1.0%)
Other income	136	140	153	3.0%	9.2%
Supplies	(2,435)	(2,403)	(2,524)	(1.3%)	5.0%
Personnel expenses	(611)	(585)	(622)	(4.2%)	6.2%
Other expenses	(2,313)	(2,493)	(2,673)	7.8%	7.2%
OIBDA	2,309	2,424	2,558	5.0%	5.5%
Depreciation and amortization	(2,394)	(2,394)	(2,295)	0.0%	(4.1%)
Amortization of intangible assets, depreciation of property, plant and equipment	(1,862)	(1,809)	(1,659)	(2.8%)	(8.3%)
Amortization of rights of use	(532)	(585)	(636)	10.1%	8.9%
Operating income (loss)	(85)	30	263	n.m.	n.m.
CapEx	1,094	1,284	1,209	17.3%	(5.8%)
OIBDA-CapEx	1,215	1,140	1,349	(6.1)	18.3%

n.m.: not meaningful

Analysis of results 2022 vs 2021

Total **revenues** were 8,224 million euros in 2022, a year-on-year increase of 5.9%, driven by the increase in the mobile business.

- **Mobile business revenues** totaled 7,394 million euros, increasing 6.5% y-o-y. This reflects the sustained mobile service revenue momentum on the back of the ongoing strong commercial traction of the O2 brand and a solid contribution from partners, more than compensating for the negative impact from the accelerated Mobile Termination Rate glide path (which has led to a decrease in termination charges).
- **Handset revenues** (which are included in mobile business revenues) amounted to 1,652 million euros, increasing 13.9% y-o-y due to continued good customer demand and availability of devices at Telefónica Germany's, with customers increasingly opting for longer-term handset financing.

- **Fixed business revenues** were 806 million euros, decreasing 1.0% y-o-y, reflecting the lower European termination rates in the carrier business, offset in part by the steadily growing share of high value customers in the fixed retail broadband accesses.

Mobile ARPU was 10.1 euros (+1.5% y-o-y) due to the 6.2% y-o-y increase in prepay ARPU, offset in part by the 1.5% y-o-y decrease in contract ARPU reflecting the accelerated Mobile Termination Rate (MTR) glide path and higher focus on customer loyalty and retention. Data ARPU was 6.7 euros (+10.8% y-o-y), supported by the success of the O2 Free portfolio.

TELEFÓNICA GERMANY	2020	2021	2022	% YoY 21/20	% YoY 22/21
ARPU (EUR)	9.9	10.0	10.1	1.1%	1.5%
Prepay	6.1	6.3	6.7	4.0%	6.2%
Contract ⁽¹⁾	13.6	13.5	13.3	(1.3%)	(1.5%)
Data ARPU (EUR)	5.9	6.1	6.7	3.6%	10.8%

⁽¹⁾ Excludes IoT.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 5,819 million euros in 2022, increasing 6.2% year-on-year.

- **Supplies** amounted to 2,524 million euros in 2022, increasing 5.0% year-on-year compared to 2021. This increase was mainly attributable to higher hardware cost of sales partially offset by positive effects from cuts in the MTR (Mobile Termination Rate) fees paid to other operators.
- **Personnel expenses** amounted to 622 million euros in 2022, increasing 6.2% year-on-year compared to 2021 mainly explained by the social security payments received from the Government in 2021 in connection with employees affected by the temporary closing of O2 shops during the enforced COVID-19 lockdown in the first half of 2021 and the salary increase in 2022, partially offset by a y-o-y lower number of full-time employees.
- **Other expenses** amounted to 2,673 million euros in 2022, increasing 7.2% year-on-year compared to 2021 reflecting higher energy costs, technology transformation and commercial activity costs.

OIBDA totaled 2,558 million euros in 2022, increasing by 5.5% y-o-y.

Depreciation and amortization amounted to 2,295 million euros in 2022, decreasing 4.1% year-on-year mainly as a result of the 3G switch-off at year-end 2021 in combination with the decision to shorten the useful life of assets in the context of technology optimization and modernization. This was partly offset by higher right of use asset amortization and new additions in IT-architecture added in the context of network modernization.

Operating income totaled 263 million euros in 2022, compared to 30 million euros in 2021, thanks to the higher revenues driven by Telefónica Germany's own brand momentum, and from efficiency gains and tight cost management.

Analysis of results 2021 vs 2020

Total revenues were 7,765 million euros in 2021, with a year-on-year increase of 3.1%, driven by the increase in revenues in both the mobile business and the fixed business.

- **Mobile business revenues** totaled 6,942 million euros, increasing 3.2% y-o-y. This positive trend reflects strong trading momentum and the success of the O2 brand.
- **Handset revenues** (which are included in mobile business revenues) amounted to 1,450 million euros, increasing 1.9% y-o-y due to the continued strong demand for high value handsets.

- **Fixed business revenues** were 814 million euros, increasing by 3.6% y-o-y due to the particularly strong customer base growth and higher share of VDSL customers.

Mobile ARPU was 10.0 euros (1.1% y-o-y) due to the 4.0% y-o-y increase in prepay ARPU, while contract ARPU decreased by 1.3% y-o-y. Data ARPU was 6.1 euros (+3.6% y-o-y), fueled by the successful O2 Free portfolio.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 5,481 million euros in 2021, increasing 2.3% year-on-year.

- **Supplies** amounted to 2,403 million euros in 2021, down 1.3% year-on-year compared to 2020 mainly driven by the positive effects from cuts in the MTR (Mobile Termination Rate) fees paid to other operators and lower hardware cost of sales.
- **Personnel expenses** amounted to 585 million euros in 2021, down 4.2% year-on-year compared to 2020 mainly due to lower restructuring costs (-3.3 p.p.), the social security payments received from the Government in connection with employees affected by the temporary closing of O2 shops during the enforced COVID-19 lockdown and a lower base of full-time employees, mainly in customer service.
- **Other expenses** amounted to 2,493 million euros in 2021, increasing 7.8% year-on-year compared to 2020 mainly driven by higher commercial activity costs, higher marketing spend to enhance brand perception and higher technology transformation costs, including 3G switch-off.

OIBDA totaled 2,424 million euros in 2021, growing by 5.0% y-o-y.

Depreciation and amortization amounted to 2,394 million euros in 2021, staying flat (0.0%) year-on-year as the positive effect from the end of the useful life of the UMTS (Universal Mobile Telephone System) licenses in 2020, and was offset by the completion in 2021 of the 3G switch-off, further network modernization and higher rights of use asset amortization.

Operating income totaled 30 million euros in 2021, compared to an operating loss of 85 million euros in 2020, positively impacted by the improvement in revenues and the continued measures in cost management and generation of efficiencies.

TELEFÓNICA BRAZIL

The table below shows the evolution of accesses of Telefónica Brazil over the past three years as of December 31 of such years:

ACCESSES

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Fixed telephony accesses ⁽¹⁾	8,994.8	7,506.5	7,012.7	(16.5%)	(6.6%)
Broadband	6,315.0	6,262.0	6,419.6	(0.8%)	2.5%
UBB	5,084.2	5,535.3	5,967.7	8.9%	7.8%
FTTH	3,377.7	4,608.7	5,482.4	36.4%	19.0%
Mobile accesses	78,523.7	83,912.3	97,973.0	6.9%	16.8%
Prepay	33,662.5	34,287.3	39,305.9	1.9%	14.6%
Contract	34,418.2	37,166.7	43,947.2	8.0%	18.2%
IoT	10,443.0	12,458.3	14,719.9	19.3%	18.2%
Pay TV	1,247.7	1,114.8	966.3	(10.6%)	(13.3%)
IPTV	890.8	916.8	898.3	2.9%	(2.0%)
Retail Accesses	95,145.0	98,853.2	112,423.7	3.9%	13.7%
Total Accesses	95,157.9	98,854.2	112,424.0	3.9%	13.7%

⁽¹⁾ Includes "fixed wireless" and Voice over IP accesses.

In 2022, Telefónica Brazil strengthened its leadership in the mobile value segment (38.9% market share as of December 31, 2022, source: ANATEL), both due to the organic growth of its customer base and the incorporation of Oi's accesses. In the fixed business, Telefónica Brazil continued to focus on the implementation of strategic technologies, such as fiber, which offset the decline in the fixed traditional business.

Accesses 2022 vs 2021

Telefónica Brazil reached 112.4 million accesses as of December 31, 2022, 13.7% higher than December 31, 2021 due to the sustained growth in the organic mobile business, in addition to the incorporation of the customer base of Oi, and the growth in FTTH, which more than offset the decline in the fixed voice business due to the continuous migration from fixed to mobile, encouraged by unlimited voice offers in the market, the contraction of the lower-value fixed broadband customer base and the loss of DTH customers as a result of the company's strategic decision to discontinue legacy technologies.

In the **mobile business**, Telefónica Brazil strengthened its leadership in terms of total accesses, with an access market share of 38.9% as of December 31, 2022 (source: ANATEL) growing both in terms of contract customers (+18.2% year-on-year, +11.5% excluding Oi) and of prepaid customers (+14.6% year-on-year, -1.2% excluding Oi). Telefónica Brazil's strategy continues to be focused on strengthening the high-value customer base, reaching a 43.5% contract ex IoT market share as of December 31, 2022 (source: ANATEL). Contract commercial offers are focused on data plans, with extra data allowances subject to subscription to digital invoice, it is complete with OTT services of their choice (for example, Disney+, Netflix, Spotify, Vivo Meditação, Vivo Pay, Babbel, GoRead, among others). The Vivo Travel roaming service for voice and data is maintained in a selection of countries of America and Europe, depending on the plan. For higher-value customers, family plans are maintained, with a greater number of available apps. Additionally, Vivo Easy Prime was launched, with flexible proposals ranging from 7GB to 20GB and allowing customers to tailor their plans according to their needs. In the prepaid segment, Telefónica Brazil offers VIVO PreTurbo, which includes WhatsApp and unlimited minutes. All of this is supported by the interaction with our customers through the AURA virtual assistant in the Meu VIVO application, transforming the service channels to improve the user experience.

In the **broadband business**, Telefónica Brazil maintained its strategic focus on the deployment of fiber, reaching 28.6 million real estate units passed with FTTx access as of December 31, 2022, of which 23.3 million correspond to FTTH. Additionally, Telefónica Brazil continued to develop alternative deployment models to accelerate the expansion of fiber with lower CapEx and a reduced time to market. Telefónica Brazil reached 6.0 million connected homes of which 5.5 million homes connected with FTTH as of December 31, 2022, increasing 7.8% and 19.0% year-on-year, respectively. This growth offset the drop in other broadband accesses (xDSL), placing retail broadband accesses at 6.4 million as of December 31, 2022, increasing by 2.5% year-on-year.

Traditional **fixed telephony accesses** decreased by 6.6% year-on-year due to the aforementioned fixed-mobile substitution.

Pay TV customers fell to 1.0 million as of December 31, 2022, decreasing 13.3% year-on-year due to the strategic decision to discontinue the DTH service, whose customer base decreased 65.7% year-on-year.

Accesses 2021 vs 2020

Telefónica Brazil reached 98.9 million **accesses** as of December 2021, 3.9% higher than December, 2020 due to the sustained growth in the mobile business, both postpaid and prepaid, FTTH and, to a lesser extent IPTV, which offset the decline in the fixed voice business due to the continuous migration from fixed to mobile, encouraged by unlimited voice offers in the market, the contraction of the lower-value fixed broadband customer base; and the loss of DTH customers as a result of the company's strategic decision to discontinue legacy technologies.

In the **mobile business**, Telefónica Brazil maintained its leadership in terms of total accesses, with an access market share of 33.1% as of December 31, 2021 (source: ANATEL) growing both in terms of contract customers (+8.0% year-on-year) and prepaid customers (+1.9% year-on-year). Telefónica Brazil's strategy continued to focus on strengthening the high-value customer base, reaching a 36.9% contract ex IoT market share as of December 31, 2021 (source: ANATEL). Contract commercial offers were focused on Vivo SELFIE and had data plans, with extra data allowances subject to subscription to digital invoicing and a 10 GB portability bonus for one year. In addition, customers had access to the OTT services of their choice (for example, Disney+, Netflix, Spotify, Globopal, Amazon

Prime and Premiere, among others). The Vivo Travel roaming service for voice and data was maintained in a selection of countries of America and Europe, and the rest of the world, depending on the plan. For higher-value customers, Family plans had a greater number of available apps and included one to four free extra members depending on the contracted plan. Additionally, they had Vivo Easy, with flexible plans ranging from 1GB to 100GB and allowing customers to tailor their plans according to their needs. In the prepaid segment, Telefónica Brazil offered VIVO PreTurbo, which included WhatsApp and unlimited minutes and allowed customers to share data with friends. All of this was supported by the interaction with our customers through the AURA virtual assistant in the Meu VIVO application, transforming the service channels to improve the user experience.

Fixed telephony accesses decreased 16.5% year-on-year due to fixed-mobile substitution.

In the **broadband business**, Telefónica Brazil maintained its strategic focus on the deployment of fiber, reaching 27.5 million real estate units passed with FTTx access as of December 31, 2021, of which 19.6 million correspond to FTTH. Additionally, it continued to develop alternative deployment models to accelerate the expansion of fiber with lower CapEx and a reduced time to market. Telefónica Brazil exceeded 5.5 million connected homes with FTTx, of which 4.6 million homes connected with FTTH as of December 31, 2021, increasing 8.9% and 36.4% year-on-year respectively. This growth offset in part the drop in other broadband accesses, such as ADSL, placing retail broadband accesses at 6.3 million as of December 31, 2021, decreasing by 0.8% year-on-year.

Pay TV customers stood at 1.1 million as of December 31, 2021, decreasing 10.6% year-on-year due to a more selective commercial activity based on value acquisition and the strategic decision to discontinue the DTH service, whose customer base decreased 44.5% year-on-year. This base contraction was partially offset by the 2.9% growth in IPTV accesses. IPTV clients represented 82.2% of the total Pay TV accesses as of December 31, 2021.

The table below shows the evolution of Telefónica Brazil's results over the past three years:

Millions of euros					
TELEFÓNICA BRAZIL	2020	2021	2022	% YoY 21/20	% YoY 22/21
Revenues	7,422	6,910	8,870	(6.9%)	28.4%
Mobile Business	4,891	4,610	6,106	(5.7%)	32.4%
Handset revenues	426	415	573	(2.5%)	38.2%
Fixed Business	2,531	2,300	2,764	(9.1%)	20.2%
Other income	325	474	416	45.5%	(12.3%)
Supplies	(1,252)	(1,216)	(1,783)	(2.9%)	46.7%
Personnel expenses	(792)	(799)	(1,097)	0.9%	37.3%
Other expenses	(2,515)	(2,231)	(2,674)	(11.3%)	19.8%
OIBDA	3,188	3,138	3,732	(1.6%)	18.9%
Depreciation and amortization	(1,965)	(1,918)	(2,369)	(2.4%)	23.6%
Amortization of intangible assets, depreciation of property, plant and equipment	(1,581)	(1,488)	(1,807)	(5.9%)	21.4%
Amortization of rights of use	(384)	(430)	(562)	11.9%	31.1%
Operating income	1,223	1,220	1,363	(0.2%)	11.7%
CapEx	1,372	2,069	1,795	50.8%	(13.2%)
OIBDA-CapEx	1,816	1,069	1,937	(41.1%)	81.2%

Analysis of results 2022 vs 2021

In 2022, **revenues** totaled 8,870 million euros, growing by 28.4%, mainly due to the increase in service revenues driven by the appreciation of the Brazilian real, Vivo's existing customer base with respect to the rest of the segment's mobile business, the addition of the business acquired from Oi, as well as the results of businesses associated with new technologies (FTTH, IPTV and Digital Services), which offset the erosion of revenues associated with voice and traditional fixed accesses.

- **Mobile business revenues** totaled 6,106 million euros in 2022, increasing by 32.4% mainly because of the appreciation of the Brazilian real, higher commercial activity and the addition of accesses from Oi.
- **Fixed business revenues** totaled 2,764 million euros in 2022, growing by 20.2% mainly related to the appreciation of the Brazilian real and higher FTTH and IT revenues.

Mobile ARPU increased by 12.9% year-on-year on the back of the appreciation of the Brazilian real.

TELEFÓNICA BRAZIL	2020	2021	2022	% YoY 21/20	% YoY 22/21
ARPU (EUR)	4.7	4.2	4.7	(12.3%)	12.9%
Prepay	2.2	2.0	2.3	(12.2%)	17.7%
Contract ⁽¹⁾	8.4	7.4	8.3	(12.3%)	12.3%
Data ARPU (EUR)	3.7	3.1	3.7	(15.5%)	20.2%

⁽¹⁾ Excludes IoT.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 5,554 million euros in 2022, increasing 30.8% year-on-year. This increase was mainly attributable to the impact of the appreciation of the Brazilian real, higher personnel expenses, expenses resulting from the higher handset sales (including sale commissions) due to higher commercial activity, as well as the addition of the business acquired from Oi.

- **Supplies** amounted to 1,783 million euros in 2022, increasing 46.7% year-on-year compared to 2021. This increase was mainly attributable to higher commercial activity and the impact of the appreciation of the Brazilian real.
- **Personnel expenses** amounted to 1,097 million euros in 2022, increasing 37.3% year-on-year compared to 2021, affected by the appreciation of the Brazilian real, a higher-than-expected salary increase, due to inflation, and higher commercial activity in B2B.
- **Other expenses** amounted to 2,674 million euros in 2022, increasing 19.8% year-on-year compared to 2021, affected by the impact of the appreciation of the Brazilian real, partially offset by cost efficiencies due to digitalization.

OIBDA stood at 3,732 million euros in 2022, increasing 18.9% year-on-year.

Depreciation and amortization amounted to 2,369 million euros in 2022, increasing 23.6% principally due to the appreciation of the Brazilian real, the acquisition of new 5G licenses in 2021 and the consolidation of the Oi assets.

Operating income amounted to 1,363 million euros in 2022, increasing 11.7%. This variation is due to the impact of the appreciation of the Brazilian real, greater commercial activity and the integration of Oi's accesses.

Analysis of results 2021 vs 2020

In 2021, revenues totaled 6,910 million euros, down 6.9%, mainly due to the depreciation of the Brazilian real (impacting the evolution by -9.0 p.p.). The decrease was partially offset by the increase in service revenues driven by the mobile business and by businesses associated with new technologies (FTTH, IPTV and Digital Services) and the sale of handsets, which offset the erosion of revenues associated with voice and traditional accesses.

- **Mobile business revenues** totaled 4,610 million euros in 2021, down 5.7% due mainly to the depreciation of the Brazilian real (impacting the evolution by -9.1 p.p.), offset in part by the increase in revenues from the mobile business and service revenues, driven by growth in the customer base, and the greater weight of

contract customers in the mix, whose consumption is oriented to the use of data and other services over connectivity. Handsets sales also increased despite the temporary closing of stores due to the COVID-19 pandemic, as a result of the higher sales in digital channels.

- **Fixed business revenues** totaled 2,300 million euros in 2021, decreasing by 9.1% due mainly to the impact of the depreciation of the Brazilian real (impacting the evolution by -8.8 p.p.). This decrease was partially offset by the increase in broadband revenues, supported by the growth in fiber revenues, driven by the growth in the customer base.

Mobile ARPU decreased by 12.3% year-on-year due mainly to the depreciation of the Brazilian real and the fact that postpaid customer base growth was mainly in entry level rates and due to the reduction in government aid that affected top ups.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 4,246 million euros in 2021, down 6.9% year-on-year. This decrease was mainly attributable to lower handset subsidies, lower sale commissions due to lower commercial activity and lower marketing costs.

- **Supplies** amounted to 1,216 million euros in 2021, down 2.9% year-on-year compared to 2020. This decrease was mainly attributable to foreign exchange effects (-9.4 p.p.) and tax recoveries.
- **Personnel expenses** amounted to 799 million euros in 2021, up 0.9% year-on-year compared to 2020. This increase was mainly attributable to inflation, partially offset by foreign exchange effects (-9.7 p.p.).
- **Other expenses** amounted to 2,231 million euros in 2021, down 11.3% year-on-year compared to 2020. This decrease was mainly attributable to foreign exchange effects (-8.6 p.p.), as well as lower commercial activity and advertising expenses.

OIBDA was 3,138 million euros in 2021, decreasing 1.6%.

Depreciation and amortization amounted to 1,918 million euros in 2021, decreasing 2.4% affected by the depreciation of the Brazilian real (-9.4 p.p.), offset in part by the higher investments.

Operating income amounted to 1,220 million euros in 2021, decreasing 0.2% affected by the provision for contingencies (154 million euros) and the depreciation of the Brazilian real (-8.9 p.p.), partially offset by the positive impact of the judicial decisions of the Brazilian Supreme Court recognizing the right to deduct the state tax on goods and services (ICMS) from the calculation of the basis of the Social Integration Program-PIS (Programa de Integração Social) and the Financing of Social Security- COFINS (Contribuição para Financiamento da Seguridade Social) (243 million euros) and the gain from the establishment of FiBrasil (90 million euros).

TELEFÓNICA HISPAM

The table below shows the evolution of accesses of Telefónica Hispam over the past three years as of December 31 of such years:

ACCESSES

Thousands of accesses	2020	2021	2022	% YoY 21/20	% YoY 22/21
Fixed telephony accesses ⁽¹⁾	7,835.0	7,034.1	6,375.7	(10.2%)	(9.4%)
Broadband	5,447.3	5,756.9	6,030.6	5.7%	4.8%
UBB	3,695.0	4,432.2	5,155.0	20.0%	16.3%
FTTH	3,417.6	4,259.0	5,053.9	24.6%	18.7%
Mobile accesses	92,204.5	94,612.6	95,579.7	2.6%	1.0%
Prepay	66,206.7	66,075.3	65,340.7	(0.2%)	(1.1%)
Contract	22,000.2	23,799.6	24,771.9	8.2%	4.1%
IoT	3,997.6	4,737.6	5,467.2	18.5%	15.4%
Pay TV	2,856.8	2,905.3	2,899.8	1.7%	(0.2%)
IPTV	577.7	913.2	1,384.7	58.1%	51.6%
Retail Accesses	108,488.6	110,395.5	110,958.9	1.8%	0.5%
Total Accesses	108,509.1	110,414.7	110,970.7	1.8%	0.5%

Notes:

⁽¹⁾ Includes "fixed wireless" and Voice over IP accesses.

Accesses 2022 vs 2021

Telefónica Hispam's **total accesses** amounted to 111.0 million as of December 31, 2022 (+0.5% year-on-year), as a result of the increase in mobile and FTTH accesses.

Mobile accesses amounted to 95.6 million, increasing by 1.0% y-o-y mainly due to the higher postpay customer base.

- **Contract accesses** increased by 4.1% year-on-year due to the increase in accesses in Mexico (+14.7%), Colombia (+8.4%) and Ecuador (+6.3%), partially offset by the decrease in Venezuela (-6.3%). This evolution was mainly driven by the commercial activity recovery and the attractive commercial offers.

- **Prepay accesses** decreased by 1.1% year-on-year, with a net loss of 735 thousand accesses as of December 31, 2022. The year-on-year accesses evolution was greatly impacted by the loss of accesses in Mexico (-921 thousand accesses) due to a higher number of disconnected non-active customers. In addition, accesses in Argentina decreased by 696 thousand. The year-on-year decrease was partially offset by an increase in accesses in Colombia (+1.3 million accesses), and to a lesser extent Ecuador (+155 thousand accesses).

Fixed accesses stood at 6.4 million as of December 31, 2022 (-9.4% year-on-year) with a net loss of 658 thousand accesses due to the continued erosion of the traditional fixed business.

Fixed broadband accesses amounted to 6.0 million as of December 31, 2022 (+4.8% year-on-year). The penetration of FBB accesses over fixed accesses stood at 94.6% (+12.7 p.p. y-o-y), as a result of the focus on Ultra Broadband (UBB) deployment in the region reaching 5.2 million connected accesses (+16.3% y-o-y) and 18.8 million premises. The penetration of UBB accesses over fixed broadband accesses stood at 85.5% (+8.5 p.p. y-o-y).

Pay TV accesses stood at 2.9 million as of December 31, 2022, with a decrease of 0.2% y-o-y as a result of the net loss of 5.5 thousand customers, mainly as a result of the lower Direct-To-Home (DTH) technology accesses (-366 thousand accesses) due to the change in commercial strategy as well as the lower cable access base (-111.5 thousand accesses), partially offset by the increase in IPTV accesses (+471.5 thousand accesses), in which the Company is placing strategic focus.

Accesses 2021 vs 2020

Telefónica Hispam's **total accesses** amounted to 110.4 million as of December 31, 2021 (+1.8% year-on-year), as a result of the increase in mobile and FTTN accesses.

Mobile accesses amounted to 94.6 million, increasing by 2.6% y-o-y mainly due to the higher post-pay customer base.

- **Contract accesses** increased by 8.2% year-on-year due to the increase in accesses in Chile (+15.0%), Colombia (14.2%) and Peru (+13.7%), partially offset by the decrease in Venezuela (-8.9%). This strong evolution was mainly driven by the commercial activity recovery and the attractive commercial offers.
- **Prepay accesses** decreased by 0.2% year-on-year, with a net loss of 131 thousand accesses at December 31, 2021. The year-on-year accesses evolution was greatly impacted by the loss of accesses in Mexico (-2.2 million accesses) as a result of the disconnection of accesses with no top-up activity and the 2G technology shutdown in Mexico, with no impact on revenues. In addition, accesses in Chile decreased by -355 thousand. The year-on-year decrease was partially offset by the increase in accesses in Colombia (+1.9 million accesses), Peru (+597 thousand accesses), Argentina (+533 thousand accesses) and Ecuador (+535 thousand accesses).

Fixed accesses stood at 7.0 million as of December 31, 2021 (-10.2% year-on-year) with a net loss of 801 thousand accesses due to the continued erosion of the traditional fixed business; however, accesses mix improved (higher weight of high value accesses, mainly broadband).

Fixed broadband accesses amounted to 5.8 million as of December 31, 2021 (+5.7% year-on-year). The penetration of FBB accesses over fixed accesses stood at 81.8% (+12.3 p.p. y-o-y), as a result of the focus on UBB deployment in the region reaching 4.4 million connected accesses (+20% y-o-y) and 14.5 million premises. The penetration of UBB accesses over fixed broadband accesses stood at 77.0% (+9.2 p.p. y-o-y).

Pay TV accesses stood at 2.9 million as of December 31, 2021, with an increase of +1.7% y-o-y as a result of the net adds of 48 thousand customers, mainly as a result of the increase in IPTV accesses (+336 thousand accesses), in which the Company is placing strategic focus, offset in part by the lower Direct-To-Home (DTH) technology accesses (-266 thousand accesses) due to the change in commercial strategy, and the lower cable access base (-21 thousand accesses).

The table below shows the evolution of Telefónica Hispam's results over the past three years:

Millions of euros

TELEFÓNICA HISPAM	2020	2021	2022	% YoY 21/20	% YoY 22/21
Revenues	7,922	8,362	9,141	5.5%	9.3%
Mobile Business	5,070	5,444	6,003	7.4%	10.3%
Handset revenues	1,111	1,398	1,541	25.8%	10.2%
Fixed Business	2,836	2,907	3,138	2.5%	7.9%
Other income	253	582	448	130.3%	(23.0%)
Supplies	(2,466)	(2,856)	(3,384)	15.8%	18.5%
Personnel expenses	(999)	(1,174)	(1,201)	17.6%	2.3%
Other expenses	(3,720)	(3,196)	(3,046)	(14.1%)	(4.7%)
OIBDA	990	1,718	1,958	73.5%	14.0%
Depreciation and amortization	(2,274)	(1,873)	(1,799)	(17.6%)	(3.9%)
Amortization of intangible assets, depreciation of property, plant and equipment	(1,826)	(1,451)	(1,345)	(20.5%)	(7.3%)
Amortization of rights of use	(448)	(422)	(454)	(5.9%)	7.6%
Operating income (loss)	(1,284)	(155)	159	(87.9%)	c.s.
CapEx	833	978	1,058	17.4%	8.1%
OIBDA-CapEx	157	740	900	370.7%	21.6%

c.s.: change of sign

Analysis of results 2022 vs 2021

Revenues amounted to 9,141 million euros in 2022, increasing 9.3% year-on-year. This increase was attributable mainly to the foreign exchange effects (+4.7 p.p.) and revenue growth due to handset sales, B2C (Business to Customer) especially postpaid and B2B (Business to Business) service revenue evolution as well as higher fixed voice revenues, broadband and new services.

Mobile business revenues amounted to 6,003 million euros in 2022, increasing 10.3% year-on-year. This increase was due mainly to foreign exchange effects (+5.5 p.p.) and revenue growth through handset sales as result of commercial activity recovery and higher postpaid revenues in B2C. The performance by country was as follows:

- In Argentina, mobile revenues amounted to 1,378 million euros in 2022, increasing 2.7% year-on-year. This growth was mainly due to higher service revenues due to the increase in accesses and continued tariff upgrades.
- In Chile, mobile revenues amounted to 969 million euros in 2022, decreasing 3.3% year-on-year due to the lower handset revenues and prepaid mobile revenues, partially offset by higher postpaid revenues.
- In Peru, mobile revenues amounted to 923 million euros in 2022, increasing 21.3% year-on-year, benefitting from the foreign exchange effects which increased growth by 14.7 percentage points and by higher service revenues, as result of the higher postpaid client base, and the price increase carried out in 2022. The higher revenues were to a lesser extent also impacted by handset revenues, as a result of the higher commercial activity.
- In Colombia, mobile revenues amounted to 891 million euros in 2022, increasing 11.8% year-on-year, due to the higher handset revenues, postpaid revenues and prepaid B2C revenues due to higher commercial activity and favorable churn evolution. The higher revenues were also impacted by higher interconnection and international roaming revenues.

- In Mexico, mobile revenues amounted to 1,172 million euros in 2022, increasing 16.1% year-on-year, due to higher service revenues as a result of the good performance of postpaid B2C and to a lesser extent due to higher handset revenues.

Fixed business revenues amounted to 3,138 million euros in 2022, increasing 7.9% year-on-year. This growth was due to foreign exchange effects (+3.2 p.p.) and higher broadband, new services, access and voice revenues in Colombia, Chile and Peru that more than offset the decrease in TV revenues in Peru.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 7,631 million euros in 2022, up 5.6% year-on-year. This increase was mainly attributable to foreign exchange effects, the reported variation of companies in hyperinflationary countries and higher network costs.

- **Supplies** amounted to 3,384 million euros in 2022, up 18.5% year-on-year compared to 2021. This increase was mainly attributable to higher direct costs related to our network and to foreign exchange effects (+5.1 p.p.).
- **Personnel expenses** amounted to 1,201 million euros in 2022, up 2.3% year-on-year compared to 2021. This increase was mainly attributable to the reported variation of companies in hyperinflationary countries (+3.6 p.p.) and foreign exchange effects (+2.7 p.p.), partially offset by the year-on-year decrease in restructuring costs in the region (-6.4 p.p.) and operational efficiencies.
- **Other expenses** amounted to 3,046 million euros in 2022, down 4.7% year-on-year compared to 2021. This decrease was mainly attributable to higher goodwill impairment in Peru in 2021 compared to the asset impairment in Argentina in 2022 (-9.9 p.p.) and efficiency projects.

OIBDA reached 1,958 million euros in 2022, increasing 14.0% year-on-year.

Depreciation and amortization amounted to 1,799 million euros in 2022, decreasing 3.9% year-on-year. The decrease was mainly attributable to the lower depreciation and amortization base resulting from the transformation of the operational model in Telefónica Mexico (-3.5 p.p.) and, to a lesser extent, the lower depreciation and amortization base in Telefónica Chile.

Operating Income (OI) was 159 million euros in 2022 (compared to a loss of 155 million euros in 2021). This result is mainly explained by the lower depreciation and amortization base in Telefonica Mexico due to the transformation of the operational model, the recording of goodwill impairment in 2021 (relating to Telefónica del Perú) in a greater amount than the other assets impairment recorded in 2022 (relating to Telefónica Argentina), the higher restructuring costs in the region in 2021 than in 2022 and the reported variation of companies in hyperinflationary countries, partially offset by higher capital gains on sales of fiber optic assets in 2021 than in 2022.

Below is additional information by country:

- In Argentina, operating loss was 270 million euros in 2022 (operating loss of 116 million euros in 2021). The y-o-y evolution was impacted by the other assets impairment and the higher depreciation and amortization recorded in 2022, which more than offset the higher revenues.
- In Chile, operating income was 179 million euros in 2022, decreasing 69.4% year-on-year from 583 million of operating income in 2021. The year-on-year evolution was mainly due to the capital gain on sales of fiber optic assets in 2021, despite the positive impact of the capital gain on the sale of the data center in 2022, higher revenues and lower amortizations.
- In Peru, operating income was 60 million euros in 2022 (compared to an operating loss of 56 million euros in 2021). This performance is mainly due to higher revenues and expenses efficiencies, offset in part by the increase in depreciation and amortization.
- In Colombia, operating income reached 261 million euros in 2022 (compared to 99 million euros in 2021), as a result of a revenues increase, non-commercial cost efficiencies and lower depreciation and amortization.
- In Mexico, operating loss was 176 million euros in 2022 (compared to an operating loss of 339 million euros in 2021). The better performance was due in part to the lower depreciation and amortization base resulting from the transformation of the operational model in Mexico.

Analysis of results 2021 vs 2020

Revenues amounted to 8,362 million euros in 2021, increasing 5.5% year-on-year. This increase was attributable in part to the reported variation of companies in hyperinflationary countries (+4.2 p.p.) and revenues growth through handset sales, B2C and B2B service revenues evolution, and broadband, new services and TV fixed revenues improvement, offset in part by the foreign exchange effects (-3.9 p.p.).

Mobile business revenues amounted to 5,444 million euros in 2021, increasing 7.4% year-on-year. This increase was due in part to the reported variation of companies in hyperinflationary countries (5.2 p.p.) and revenues growth through handset sales as a result of commercial activity recovery and higher postpaid and prepaid revenues in B2C, offset in part by the foreign exchange effects (-3.2 p.p.). The performance by country was as follows:

- In Argentina, mobile revenues amounted to 1,342 million euros in 2021, increasing 23.4% year-on-year. This growth was mainly due to higher service revenues resulting from continued tariff upgrade in line with inflation.
- In Chile, mobile revenues amounted to 1,002 million in 2021, increasing 8.1% year-on-year, due to higher handset revenues and mobile service and mobile broadband revenues growth recovery, offset in part by the depreciation of the Chilean peso.
- In Peru, mobile revenues amounted to 761 million euros in 2021, decreasing 0.4% year-on-year, mainly driven by revenues recovery through handset sales, as a result of the higher commercial activity, and higher service revenues leveraged on a higher average revenue per client and a favorable disconnections evolution, offset to a great extent by the depreciation of the Peruvian nuevo sol.
- In Colombia, mobile revenues amounted to 797 million euros in 2021, increasing 4.3% year-on-year, driven by higher handset revenues, postpaid B2C revenues due to higher commercial activity and a favorable churn evolution, higher prepaid B2C revenues and interconnection mobile revenues, offset in part by the depreciation of the Colombian peso.
- In Mexico, mobile revenues amounted to 1,010 million euros in 2021, decreasing 2.2% year-on-year, due to the lower interconnection tariffs, which adversely affected the wholesale business, the decrease in international traffic, and lower prepaid and B2B commercial activity, partially offset by the positive postpaid revenues evolution and the appreciation of the Mexican peso.

Fixed business revenues amounted to 2,907 million euros in 2021, increasing 2.5% year-on-year. This increase was due in part to the reported variation of companies in hyperinflationary countries (specifically, Argentina), which increased growth by 2.3 percentage points, higher broadband and new services as well as TV revenues in Colombia, Chile and Peru which offset the decline in accesses and voice revenues and the adverse impact of foreign exchange effects.

The **total amount of supplies, personnel expenses and other expenses** (mainly external services and taxes) amounted to 7,226 million euros in 2021, up 0.6% year-on-year. This increase was mainly attributable to higher direct costs associated with our network and the reported variation of companies in hyperinflationary countries, partially offset by foreign exchange effects.

- **Supplies** amounted to 2,856 million euros in 2021, up 15.8% year-on-year compared to 2020. This increase was mainly attributable to higher direct costs related to our network and the reported variation of companies in hyperinflationary countries (+4.7 p.p.), partially offset by foreign exchange effects (-4.0 p.p.).
- **Personnel expenses** amounted to 1,174 million euros in 2021, up 17.6% year-on-year compared to 2020. This increase was mainly attributable to restructuring costs in the region (+16.2 p.p.).
- **Other expenses** amounted to 3,196 million euros in 2021, down 14.1% year-on-year compared to 2020. This decrease was mainly attributable to the decrease in goodwill impairment between 2020 and 2021 (-13.5 p.p.).

OIBDA reached 1,718 million euros in 2021, increasing 73.5% year-on-year.

Depreciation and amortization amounted to 1,873 million euros in 2021, decreasing 17.6% year-on-year. The decrease was mainly attributable to the lesser impact in 2021 than in 2020 of the accelerated amortization and depreciation resulting from the transformation of the operational model in the operator (-10.2 p.p.) and, to a lesser extent, the foreign exchange effects (-2.7 p.p.).

Operating loss was 155 million euros in 2021 (compared to a loss of 1,284 million euros in 2020). The decrease in the operating loss was the result, in part, of the impairment losses recorded in Telefónica Argentina in 2020 (which exceeded the amount of the impairment in Telefónica Peru in 2021), the capital gain on the sale of 60% of the shares in InfraCo, SpA in 2021, and the lesser impact of the accelerated amortization in Telefónica México in 2021 (compared to 2020) resulting from the transformation of the operational model in the operator, partially offset by the higher restructuring costs in the region in 2021.

Below is additional information by country:

- In Argentina, operating loss was 116 million euros in 2021 (operating income of 4 million euros in 2020). The y-o-y evolution in the operating loss was impacted by higher costs, offset in part by the decrease in depreciation and amortization.
- In Chile, operating income was 583 million euros in 2021 (141 million euros in 2020), and was positively impacted by the capital gains on the sale of 60% of the shares in InfraCo, SpA, higher fixed and mobile revenues, expenses efficiencies and the lower depreciation and amortization expense.
- In Peru, operating loss was 56 million euros in 2021 (operating loss of 84 million euros in 2020). The y-o-y reduction in the operating loss was attributable in part to the lower depreciation and amortization expense, offset in part by the increase in other expenses, mainly restructuring expenses.
- In Colombia, operating income reached 99 million euros in 2021 (113 million euros in 2020), as a result mainly of the foreign exchange effects (which reduced growth by 4.7 percentage points), higher operating expenses and higher depreciation and amortization expenses, offset in part by the increase in B2B revenues, mobile handsets mark-up subsidies and non-commercial cost efficiencies.
- In Mexico, operating loss was 339 million euros in 2021 (operating loss of 606 million euros in 2020). The y-o-y reduction in the operating loss was positively impacted by the y-o-y decrease in the depreciation and amortization expense resulting from the accelerated amortization and depreciation related to the transformation of the operational model in the operator.

Our services and products

New digital technologies are the main driving force of social and economic transformation today. This premise is the basis upon which we build our vision: we want to provide access to digital life, using the best technology and without leaving anyone behind.

Connectivity is our ally in reducing the digital divide and, due to our fixed and mobile network infrastructure and the services we develop around it, we can aid progress in the communities in which we operate.

To move towards this vision, at Telefónica we work on three basic fronts:

- 1) Providing access to technology through digital inclusion, in other words, by means of network roll-out and an accessible and affordable offer for all sectors of the population.
- 2) Developing innovative services that add value to our connectivity and which we develop through innovation: Big Data, the Internet of Things (IoT), eHealth, digital education and eFinances.
- 3) Incorporating sustainability principles across all of our product development processes.

Mobile business

Telefónica offers a wide variety of mobile and related services and products to personal and business customers. Although they vary from country to country, Telefónica's principal services and products are as follows:

- **Mobile voice services:** One of the main Telefónica's services in all of its markets is mobile voice telephony.
- **Value added services:** Customers in most of the markets have access to a range of enhanced mobile calling features, including voice mail, call on hold, call waiting, call forwarding and three-way calling.
- **Mobile data and Internet services:** Current data services offered include Short Messaging Services, or SMS, and Multimedia Messaging Services, or MMS, which allow customers to send messages with images, photographs, sound recordings and video recordings. Customers may also receive selected information, such as news, sports scores and stock quotes. Telefónica also provides mobile broadband connectivity and Internet access. Through mobile Internet access, customers are able to send and receive e-mail, browse the Internet and access real-time available entertainment services (such as video and audio streaming), download games, purchase goods and services in m-commerce transactions and use Telefónica's other data and software services.
- **Wholesale services:** Telefónica has signed network usage agreements with several MVNOs in different countries.
- **Corporate services:** Telefónica provides business solutions, including mobile infrastructure in offices, private networking and portals for corporate customers that provide flexible online billing.
- **Roaming:** Roaming agreements allow Telefónica customers to use their mobile handsets when they are outside their service territories, including on an international basis.
- **Fixed wireless:** Telefónica provides fixed voice telephony services through mobile networks in Brazil, Venezuela, Argentina, Peru, Mexico and Ecuador. Until January 24, 2019 and May 16, 2019, Telefónica also provided these services in Guatemala and Nicaragua, respectively. Until January 13, 2022, Telefónica also provided these services in El Salvador.
- **Trunking and paging:** Telefónica provides digital mobile services for closed user groups of clients and paging services in Spain and most of the regions in which it operates in Latin America.

Fixed-line telephony business

The principal services Telefónica offers in its fixed businesses in Europe and Latin America are:

- **Traditional fixed telecommunication services:** Telefónica's traditional fixed telecommunication services include PSTN lines; ISDN accesses; public telephone services; local, domestic and international long-distance and fixed-to-mobile communications services; corporate communications services; supplementary value added services (including call waiting, call forwarding, voice and text messaging, advanced voicemail services and conference-call facilities); video telephony; business oriented value-added services; intelligent network services; leasing and sale of handset equipment; and telephony information services.
- **Internet and broadband multimedia services:** the principal Internet and broadband multimedia services include Internet provider service; portal and network services; retail and wholesale broadband access through ADSL, narrowband switched access and other technologies. Telefónica also offers high-speed Internet services through fiber to the home (FTTH) in certain markets (primarily Spain, Brazil, Chile and -through VMO2- the United Kingdom) and VDSL-based services (primarily Spain and Germany). Telefónica also offers VoIP services in some markets.
- **Data and business-solutions services:** the data and business-solutions services principally include leased lines; virtual private network, or VPN, services; fiber optics services; the provision of hosting and application, including web hosting, managed hosting, content delivery and application, and security services; outsourcing and consultancy services, including network management, or CGP; and desktop services and system integration and professional services.

- **Wholesale services for telecommunication operators:** the wholesale services for telecommunication operators principally include domestic interconnection services; international wholesale services; leased lines for other operators; and local loop leasing under the unbundled local loop regulation framework. It also includes bit stream services, wholesale line rental accesses and leased ducts for other operators' fiber deployment and other agreements to provide wholesale access to our fixed infrastructure.

Digital services

The main digital services offered by Telefónica are:

- **Video/TV services:** Interactive TV services in High Definition (HD) or Ultra High Definition (UHD), using several technologies (IPTV, DTH, CATV and OTT) on various types of networks (Fiber, Satellite, Cable or Mobile Networks). These services can be provided through a variety of devices (TV with STBs, SmartTVs, PCs, Smartphones, Tablets, etc.), allowing also the Multiroom function (customers can watch different TV channels in different rooms or different devices simultaneously). The service allows the access to lineal TV content with advanced functions such as "Restart TV" (which allows a viewer to watch any content from the beginning), "Last 7 days" (recordings of content for the last seven days), "cPvR" (recordings using cloud computing) and "Down to Play" (downloading the content on the device). Customers also have access to the content on demand catalogue (Video on Demand or VoD), in "Subscription Video on Demand" (SVoD) or "Pay per View" options, as well as access to content of third parties, such as Netflix, Amazon, YouTube and HBO, among others. In addition, Telefónica offers accessible content in Spain with subtitles, audio description and sign language functionalities through the Movistar+ 5s service, which aims to contribute toward the inclusion of disabled people across the country.

- **IoT (Internet of Things):** Telefónica's Global IoT portfolio includes:

- **Smart Connectivity:** connectivity services for machines, mainly handled through the Kite platform.

- **Smart Services:** end-to-end solutions that include "device + connectivity + application". These business-to-business solutions are mainly aimed at (i) the mobility management of vehicles, assets and/or people, (ii) the support of the retail and industrial sectors and (iii) the efficient management of energy and water consumption.

- **Consumer IoT:** products focused on the B2C segment, including end-to-end services around the person (e.g., connected cars, trackers).

- **Financial services and other payment services:** These services provide customers with access to consumer credit and payment cards.

- **Security services:** Digital acceleration is a process that creates multiple opportunities but also increases challenges for the security ecosystem of the business. Therefore, in a world where cyber threats are inevitable, as managed security services providers, we focus on prevention, detection, and appropriate response to reduce attacks, protect digital services, and thus promote the cyber security resilience of our clients' business. All this is supported by a team of multidisciplinary security professionals and a portfolio that includes the following services: Network security, Managed Security, Data protection, Cloud security, IoT/OT Security, Identity and Access Management and Professional Services.

- **Cloud services:** Telefónica offers a wide range of Cloud solutions, mostly through Telefonica Tech, designed according to the needs of each client accelerating their journey to the cloud. The value proposition includes: (i) Secure Cloud Connectivity: services that increase the performance and security of the business connectivity (SD-WAN, SD-BRANCH, SDLAN - Cloud Wifi, SASE); (ii) Hybrid Cloud: improves IT workloads, data and, applications management (from on-premises data centres to VDC, public cloud or hybrid solutions); (iii) Future of Workplace: secure digitization of the workforce (Productivity, Unified Comms, Business Apps, Virtualization, Terminal Management); and (iv) Consultancy, Professional Services and Managed Services.

- **Advertising:** A portfolio of marketing channels that third-party brands can use to acquire and engage with customers. Traditional channels such as SMS/MMS messaging may be used alongside with new channels like programmatic display and sponsored connectivity. All of which leverage on the Group's

customer data in order to send messages to the correct target as well as to generate post-campaign brand analysis.

- **Big Data:** Includes products and services designed to enable companies and governments to make AI-powered data-driven decisions. The Group's Big Data offer comprises of three main categories: (i) "business insights", which provides information for decision-making based on analysis from advanced analytical products developed on top of data generated in the Group's network and systems; (ii) "consulting and analytics", which includes specialist professional services focused on data strategy, data science, data architecture and data engineering; and (iii) "tools and infrastructure", which provides advanced technology for data management, storage and exploitation.

- **Customer Experience:** Refers to the omnichannel digital experience (including the Novum app but also other digital channels) and its development, guiding the Telefónica customer through his or her life cycle, adapting the digital experience to every moment's necessity using personalization capabilities.

- **Aura:** is an artificial-intelligence ("AI") ecosystem designed to improve communication between the Telefónica Group and its customers. Its aim is to address customer needs and provide them with relevant information related to the company, potentially in any area where Telefonica offers services such as answering questions about telecommunications services, offering financial service proposals, or making recommendations about television or connection offerings. To foster a relationship with customers, Aura will offer the creation of conversational bots using its own infrastructure, with a private and transparent data approach by design. Additionally, to generate useful information, Aura will provide its own AI model execution platform with the goal of enhancing the information provided to customers.

- **Movistar Home ("MH"):** Telefónica launched Movistar Home in Spain on October 18, 2018, a new device designed around the functionality of Aura and targeted at the Group's Movistar and Pay TV customers. Movistar Home is designed to strengthen Telefónica's position by enabling highly-converged services and experiences that differentiate the Group from its competitors. Movistar Home aims to provide the Group's customers with an enhanced TV experience on IPTV, increased landline functionality (which enables videoconferences), the Group's smart home package and games in addition to third-party services.

- **Living Apps:** A platform that allows Telefónica's business units and partners to create relevant home experiences for our users, beyond the consumption of TV content, adding value to core businesses (and growth to Telefónica, opening new business opportunities).

- **Smart Wifi:** A customer application to manage home connectivity and enhance the value proposition by offering new services like Conexion Segura, intended to protect customers against a broad range of cyber threats.

- **NT:** A micro-rewards program in Spain to reward customers with Tokens for their digital behavior. Tokens are awarded when customers make use of our digital channels, products and services and can be exchanged for a given catalogue of company products.

- **Solar 360:** In March 2022 Repsol and Telefónica Spain created a joint venture to develop the solar self-consumption business. The new company started to operate in June 2022 launching Solar360, offering a comprehensive self-consumption solution to private customers, communities of neighbors and companies, SMEs, and large companies, through solar panel installation. The offer will be customized for each type of customer according to their level and habits of consumption, seeking to maximize savings on their current electricity bill. It will include a mobile application for the control of the installation and the continuous optimization of energy expenditure, personalized financing for each type of consumer and other value-added services linked to the solar panel installation.

- **Phoenix:** A digital sales platform that allows customers to receive a personalized offer to renew their device and process the purchase in a simple and fully digital checkout. When customers are eligible to renew their device or expand their devices ecosystem with Telefonica, a customized offer is sent via the usual communication channels (SMS, MMS, emailing, Novum/Digital experience app). Once the customer chooses among the selected proposed portfolio a number of payment and logistics options can be chosen to complete a convenient "few-clicks" device renewal.

Sales and Marketing

Our sales and marketing strategy is aimed toward reinforcing our market position, generating brand awareness, promoting customer growth and achieving customer satisfaction. We use a variety of marketing initiatives and programs, including those that focus on customer value, with in-depth market segmentation; programs to promote customer loyalty; pricing initiatives aimed toward stimulating usage, including segmented packages and innovative tariff options; and initiatives that are responsive to the latest market trends, including those aimed toward boosting demand for our mobile Internet and mobile broadband offerings. In connection with these and our other sales and marketing initiatives, we market our products through a broad range of channels, including television, radio, billboards, telemarketing, direct mail and Internet advertising. We also sponsor a variety of local cultural and sporting events in order to enhance our brand recognition.

Competition

The telecommunications industry is competitive, and consumers generally have a choice of mobile and fixed line operators from which to select services. We are a global telecommunications services provider and face significant competition in most of the markets in which we operate. In Europe, our largest competitor is Vodafone and in Latin America, our largest competitor is América Móvil. Newer competitors, including handset manufacturers, MVNOs, Internet companies and software providers, are also entering the market and offering integrated communications services.

We compete in our markets on the basis of the price; the quality and range of features of our services; the added value we offer with our service; additional services associated with those main services; the reliability of our network infrastructure and its technological attributes; and the desirability of our offerings, including bundled offerings of one type of service with another and, in the case of the mobile industry, in some markets offers that include subsidized handsets and handsets sold on installment plans.

To compete effectively with our competitors, we need to successfully market our products and services and to anticipate and respond to various competitive factors affecting the relevant markets, such as the introduction of new products and services, different pricing strategies and changes in consumer preferences.

Regulation

Please see Appendix VI to our Consolidated Financial Statements.

Licenses and Concessions

Please see Appendix VI to our Consolidated Financial Statements.

Seasonality

Our business is not significantly affected by seasonal trends.

Patents

Our business is not materially dependent upon the ownership of patents, commercial or financial contracts or new manufacturing processes.

Security Strategy and Framework

The digital ecosystem has facilitated the access of companies and users to a large amount of information, multiplying the ease and speed at which this information can be transmitted between different networks, companies, and countries. This volume of data implies an important advancement opportunity for society, but also a significant responsibility for companies that, like Telefónica, manage considerable amounts of personal, anonymous, or aggregate information. In addition to threats to the integrity and privacy of data, Telefónica may face network interruptions which could affect the quality of, or cause interruption to, the provision of its services. See "Item 3. Key Information—Risk Factors—Risks Related to Telefónica's Business Activities—The Telefónica Group's strategy, which is focused on driving new digital businesses and providing data-based services, involves exposure to risks and uncertainties arising from data privacy regulation", "—Operating Risks—Information technology is key to the Group's business and is subject to cybersecurity risks" and "—Operating Risks—Climate change, natural disasters

and other factors beyond the Group's control may result in physical damage to our technical infrastructure that may cause unanticipated network or service interruptions or quality loss or otherwise affect the Group's business".

To address these risks, the Group has adopted various lines of action which are led by its Security and Intelligence area. The head of Security and Intelligence is the Global Director of Security and Intelligence who has been delegated the authority and responsibility by the Company's Board of Directors to establish the global strategy for this area. He leads the development and monitors the implementation of the policy framework and global initiatives in the area of Security, and reports to the Board of Directors through the Audit and Control Committee and the Sustainability and Quality Committee. The director will propose those to be appointed as local Security Officers for each Telefónica Group company, who shall be submitted to the decision of the corresponding administrative or management bodies of the companies. For purposes of government and coordination, we have a Global Security Committee presided by the Global Director of Security and Intelligence, in which the heads of our business areas (including Compliance, Auditing, Legal, Technology and Operations and Human Resources) and the Security Officers of each country participate, in addition to local Security Subcommittees, that collaborate in the definition of global strategic initiatives and guidelines and implement them in each country. In addition, Telefónica has a Security Advisory Board made up of external experts in the field of security and intelligence, with the aim of contributing with best practices and improving efficiencies of capabilities and procedures and raising the quality of our strategy in these matters. Finally, we have a Digital Security Committee, in which several members of the Executive Committee of the Company participate, that establishes our risk posture in respect of the main threats we face and monitors the key strategic and operational aspects of digital security.

We have two main lines of action:

1. Operational security, business continuity and supply chain security: Some of the initiatives adopted are the following:
 - *Business continuity*: Our business continuity groups maintain and update standardized continuity plans, using digital tools to improve disaster recovery in order to provide a global vision of the risks we face and the management thereof.
 - *Crisis management*: Because of the COVID-19 pandemic, the crisis management protocol was strengthened. The global crisis management plan is implemented in all the Business Units of the Telefónica Group, with a common management model, a standard architecture, digitalized crisis alert processes and training for critical employees. The Business Continuity offices have continued reviewing crisis management procedures and identifying the most relevant processes, to ensure that they are robust enough to guarantee the resilience of the Company.
 - *Supply chain security*: The integral security of products and services is necessarily supported by the strengthening of security controls in the complete cycle of the supply chain, specifically in the security of Telefónica Group suppliers. For this purpose, we have homogenized security controls in place at all different stages of the procurement process of products, equipment, and services, working in an integrated manner among the areas of security, financial control, procurement, technology and operations to ensure that suppliers and partners comply with the security controls required by Telefónica's own regulations, any other regulatory requirements and best practices in the industry.
2. Digital security: Our initiatives in digital security are aimed at maintaining the confidentiality, integrity and availability of the services and data of the Group. We both proactively analyze vulnerabilities and manage security incidents. Some of the initiatives adopted are the following:
 - *Network security*: The role of Telefónica as a telecommunications operator makes it essential to strengthen the security controls of fixed and mobile communications networks and infrastructures, as well as the associated service platforms (e.g. video, IoT). In this sense, the aforementioned security processes are applied in a holistic manner to manage the risks associated with attacks and the exploitation of vulnerabilities in networks and protocols within the Group, with our main technological partners and with international organizations (e.g. GSMA), to limit any potential impacts. Examples of our network security initiatives include initiatives on 5G, 4G/LTE, SS7, BGP and other critical enabling technologies.
 - *Cybersecurity, vulnerability management and security breaches*: We are proactive with regards to cybersecurity, vulnerability management and security breaches. We have a network of Incident Response Centers (CSIRT) at a global level, that works in a coordinated way to identify and analyze the risks of

potential cyberthreats, monitor serious vulnerabilities in our most critical technological assets, establish relationships with other national and international CSIRTs / Computer Emergency Response Teams (CERTs) from both the public and private sectors, detect potential security incidents that may affect the technological assets of the Group and respond to and manage any security incidents that may affect the Group. We have public mailboxes, both globally and locally, available to any user and designed for the reporting of any vulnerability or threat that could affect Telefónica's technological infrastructure. We also operate a vulnerability detection (bug-bounty) program with select leading companies within the industry.

When the impact or consequences of an incident or vulnerability threaten the continuity of one or several critical processes or services or the reputation of the Group the corresponding Business Continuity Plan is activated. The Global Crisis Management System aims to ensure our preparedness to manage such incidents or vulnerabilities by facilitating the coordination, communication, and collaboration of all the areas involved to help ensure operational normality is restored in the shortest possible time and with the least possible impact.

During 2022, all identified security incidents were managed pursuant to our existing protocols for responding to incidents, and with the appropriate communication to regulatory bodies in cases where personal data was involved. None of these incidents were considered to be material by the Group.

Lessons learned from incidents constitute a fundamental part of a feedback process designed to facilitate security improvement projects, with regards to processes, capabilities, and technological platforms.

Security measures related to remote access and teleworking were strengthened during the previous years due to the situation caused by COVID-19 pandemic.

Awareness in the security area is of great relevance for the Telefónica Group. We have in place a global digital security course, phishing simulation campaigns and security awareness surveys, and specific training programs continued to be imparted to special focus groups and managers.

Finally, we maintain, both locally and globally, various insurance programs to mitigate the impact of a potential incident. Specifically, we have coverage for cybersecurity risks that cause loss of income, loss of customers, extra costs or digital asset recovery expenses, and coverage for errors and technological omissions in the case of potential claims against us for damages caused to customers and third parties. These insurance policies are subject to certain loss limits, deductions and exclusions and we can provide no assurance that all losses related to a cybersecurity incident will be covered under our policies.

Disclosure Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 added Section 13(r) to the Exchange Act. Section 13(r) requires an issuer to disclose in its annual or quarterly reports filed with the SEC whether the issuer or any of its affiliates has knowingly engaged in certain activities, transactions or dealings with the Government of Iran, relating to Iran or with designated natural persons or entities involved in terrorism or the proliferation of weapons of mass destruction during the period covered by the annual or quarterly report. Disclosure is required even when the activities were conducted outside the United States by non-U.S. entities and even when such activities were conducted in compliance with applicable law.

The following information is disclosed pursuant to Section 13(r). None of these activities involved U.S. affiliates of Telefónica.

Some of our subsidiaries have entered into roaming agreements with Iranian telecommunication companies. Pursuant to such roaming agreements our subsidiaries' customers are able to roam in the particular Iranian network (outbound roaming) and customers of such Iranian operators are able to roam in our relevant subsidiary's network (inbound roaming). For outbound roaming, our subsidiaries pay the relevant Iranian operator roaming fees for use of its network by our customers, and for inbound roaming the Iranian operator pays the relevant subsidiary roaming fees for use of the respective network by its customers.

Our subsidiaries and our former subsidiary Telefónica UK Ltd. were party to the following roaming agreements with Iranian telecommunication companies in 2022:

1. Telefónica Móviles España S.A. ("TME"), our Spanish directly wholly-owned subsidiary, has respective roaming agreements with (i) Mobile Telecommunication Company of Iran ("MTCI"), (ii) Taliya ("Taliya") and

(iii) Telecommunication Kish Co (“TKC”). During 2022 TME recorded the following revenues related to these roaming agreements: (i) 56,994 euros from MTCL, (ii) no revenues from Taliya and (iii) no revenues from TKC.

2. Telefónica Germany GmbH & Co. OHG (“TG”), our German 70.5% indirectly-owned subsidiary, has respective roaming agreements with (i) MTCL and (ii) Irancell. During 2022 TG recorded the following revenues related to these roaming agreements: (i) no revenues from MTCL and (ii) 5,685 euros from Irancell.
3. Telefónica UK Ltd (“TUK”), our former English directly wholly-owned subsidiary, has a roaming agreement with Taliya. TUK ceased to be our subsidiary upon the establishment of VMO2 on June 1, 2021, to which it was contributed. During 2022 TUK recorded no revenues from Taliya.
4. Telefónica Brasil S.A. (“Telefónica Brasil”), our Brazilian 74.2% indirectly-owned subsidiary, has a roaming agreement with Irancell. During 2022, Telefónica Brasil recorded 559,37 U.S. dollars in roaming revenues from Irancell under this agreement.
5. Pegaso PCS S.A. de C.V. (“PCS”), our Mexican directly wholly-owned subsidiary, has a roaming agreement with Irancell. During 2022 PCS recorded 185,30 euros in roaming revenues from Irancell under this agreement.

The net profit recorded by our subsidiaries and TUK pursuant to these agreements and arrangements did not exceed the related revenues recorded thereunder.

The purpose of all of these agreements is to provide our customers with coverage in areas where we do not own networks. For this purpose, we intend to continue maintaining those agreements which are still outstanding.

The Group does not currently have any forthcoming plans to enter into new roaming arrangements with Iranian telecommunication companies. However, the Group may consider entering into such arrangements in the future.

Additionally, during 2022, Telefónica Germany GmbH & Co. OHG (“TG”), our German 70.58% indirectly-owned subsidiary, had retail mobile phone and internet contracts with two customers in Germany identified in the lists administered by OFAC as sanctioned pursuant to Executive Order 13224 and Executive Order 13382. During 2022, TG recorded the following revenues related to those two agreements: 300 euros under each of them. Both agreements are in the process of being terminated before May 2023. The provision of the relevant services by TG was in compliance with applicable laws.

C. Organizational Structure

See “—History and Development of the Company” and “—Business Overview”.

D. Property, Plant and Equipment

Our central headquarters for the Telefónica Group are located in “Distrito Telefónica,” in Madrid, Spain.

Telefónica’s operations and assets (including its towers and submarine cables) are located in many areas that are subject to natural disasters and severe weather, and which may be adversely affected in the future by climate change.

See Note 8 to the Consolidated Financial Statements for information on the year-on-year decrease in “Property, plant and equipment” from 22,725 million euros as of December 31, 2021 to 23,714 million euros as of December 31, 2022.

Fixed Networks

We own fixed networks in Spain, Latin America and Europe, having an incumbent role in Spain, Argentina (the greater Buenos Aires metropolitan area and the southern portion of the country), Brazil (São Paulo), Chile, Peru and Colombia.

Following market trends, competitive environments, evolution of technologies and new multimedia and broadband services demanded by our customers, we have upgraded our networks in recent years through the following:

- progressive introduction of broadband access technologies over copper: ADSL, ADSL2+, VDSL2, etc., increasing the bandwidth capacity provided to our broadband clients several times in the last fifteen years;
- introduction of fiber access technologies (xPON) across different deployment scenarios: fiber to the home (FTTH), fiber to the building (FTTB), fiber to the curb (FTTC), fiber to the node (FTTN), etc., increasing the customer access speed up to 1 Gbps;
- service support based on powerful Internet Protocol/ Multiprotocol Label Switching (IP/MPLS) backbones, providing full connectivity to the rest of the network layers, such as access and control, to support services for business and customer market segments (fixed and mobile);
- migration of the legacy time division multiplexing (TDM) switching networks (PSTN and ISDN) to new generation network (NGN) over all-IP packet networks;
- migration from legacy transport technologies, such as asynchronous transfer mode (ATM), frame relay (FR), low-rate leased lines, plesiochronous digital hierarchy (PDH) and synchronous digital hierarchy (SDH), to the new generation of optical transport ones, such as dense wavelength division multiplexing (DWDM), coarse wavelength division multiplexing (CWDM) and new generation-synchronous digital hierarchy (NG-SDH);
- introduction of IMS (Internet Multimedia Subsystem) to simplify the control of the network and ease the deployment of new services over the all-IP converged network;
- empowerment of the intelligence of the network to better manage its use, to avoid saturations and frauds and to identify new business opportunities;
- convergence of fixed and mobile networks, services and support systems from both technological and operational points of view; and
- deployment of new services such as Pay TV, to customers connected through broadband accesses in Spain, Chile, Argentina, Brazil, Peru and Colombia.

Mobile Networks

We operate mobile networks in Spain, the United Kingdom (through VMO2), Germany, Brazil, Argentina, Venezuela, Chile, Peru, Colombia, Mexico, Ecuador and Uruguay. Telefónica also provided these services in

Guatemala (until January 24, 2019), Nicaragua (until May 16, 2019), Panama (until August 29, 2019), Costa Rica (until August 9, 2021) and El Salvador (until January 13, 2022). For additional information, see “-History and Development of the Company-Overview”. In addition, Telefónica entered in 2019 into an agreement with AT&T to access AT&T’s last mile wireless capacity in Mexico. Through this agreement, Telefónica gains access to capacity on AT&T’s 3G and 4G access network and any future access network technologies nationwide, while maintaining its transport network and all of its platforms in such country. The migration of the traffic to the AT&T access network was completed during 2022. For additional information on the Wholesale Agreement, see “Item 10. Additional Information—Material Contracts—Wholesale Access Services Agreement with AT&T Mexico”.

We use a number of mobile technologies in the countries in which we operate, namely: GSM, UMTS, LTE and 5G. 5G is currently solely being used in Spain, the United Kingdom, Germany, Brazil and Chile, countries where it is in a halfway phase of deployment. We continue the work of upgrading our mobile networks in line with market trends, the demand of new services from customers and the evolution of technologies. The main steps we are currently taking include:

- evolution of broadband in mobile access using the latest LTE standards (LTE-A, MIMO and carrier aggregation) to improve network capacity and user experience;
- deployment of new services such as mobile television (OTT) and distribution services for next generation music, video and games;
- deployment of 5G networks following different approaches in order to give our customers the best experience for this new access technology. Together with the main vendors and sharing experience with other operators, we are exploring the opportunities that the new 5G standards can offer by providing higher capacity at a lower relative cost by user/traffic unit; and
- convergence of fixed and mobile networks, services and support systems from both technological and operational points of view.

Satellite communications

The services provided using satellite platforms include television contribution signal to feed cable and IPTV head ends, DTH television, VSAT mainly for mobile telephony and Internet access in rural areas, emergency solutions, corporate communications and international communications.

Submarine cables

We are one of the world’s largest submarine cable infrastructure companies. Through Telxius, we continue to expand our global ecosystem of digital infrastructure based on more than 80,000 km of high-capacity fiber optic submarine cables. As of the date of this Annual Report, we hold a 70% beneficial interest in Telxius following the completion of the transaction with Taurus (described in “—History and Development of the Company—Recent Developments”). In addition, we own around 20 submarine domestic cables in Spain.

There are submarine cable connections linking Europe, The Americas and Africa which are jointly owned by us and other telecom operators. The SAm-1 cable, fully owned by Telxius, has a length of approximately 25,000 kilometers and links different countries such as the United States, Puerto Rico, Ecuador, Guatemala, Peru, Chile, Brazil, Argentina and Colombia.

Next generation submarine cable systems are already in service to help meet the capacity demand in the future. The Brusa cable links Brazil and the United States, while the Marea and Dunant cables links the United States and Europe. Additionally, the 7,300 km Mistral cable serves the entire Pacific coast of South America with the highest levels of service, reliability and security. The 2,000 km next generation Tannat system (Santos-Las Toninas) adds to the Brusa (Virginia Beach – Rio de Janeiro) and Junior (Rio de Janeiro – Santos) cables on the Atlantic coast of Latin America to deliver modern and diverse end-to-end connectivity between the United States, Brazil and Argentina.

Item 4A. Unresolved Staff Comments

Not applicable.

Item 5. Operating and Financial Review and Prospects

A. Operating Results

Presentation of Financial Information

The information in this section should be read in conjunction with our Consolidated Financial Statements, included elsewhere in this Annual Report. Our Consolidated Financial Statements have been prepared in accordance with IFRS as issued by the IASB.

In 2022 the Telefónica Group is reporting financial information, both internally and externally, according to the following segments: Telefónica Spain, VMO2, Telefónica Germany, Telefónica Brazil and Telefónica Hispam (formed by the Group's operators in Colombia, Mexico, Venezuela, Ecuador, Argentina, Chile, Peru and Uruguay).

During 2021, compared to 2020, the Telefónica Group changed its reporting segments as follows:

- On June 1, 2021, upon the establishment of VMO2 (whose results are accounted for under the equity method), the former Telefónica United Kingdom segment was replaced by the new VMO2 segment (see Notes 2 and 10 to the Consolidated Financial Statements). The Group's consolidated results for the year ended December 31, 2021 include the consolidation of Telefónica United Kingdom from January 1 to June 1, and the equity accounting of 50% of the net result of VMO2 from June 1 to December 31 (see Note 10 to the Consolidated Financial Statements). The gain registered upon the establishment of VMO2, amounting to 4,460 million euros (see Notes 2 and 23 to the Consolidated Financial Statements), is recorded under "Other companies". The VMO2 segment information included in this Annual Report is presented under management criteria, and shows 100% of VMO2's results. In addition, information included in this Annual Report on the accesses of the Group and the VMO2 segment as of December 31, 2022 and December 31, 2021 includes 100% of the accesses of VMO2. Telefónica's actual percentage ownership of VMO2 is 50%.

Since it is not practicable to restate the historical segment financial information to reflect this change, in this Annual Report, the relevant segment discussions consist of (i) for purposes of the 2022-2021 period-on-period discussions, an analysis of the results of our VMO2 segment (which, for purposes of 2022, consists of the results obtained by VMO2 from January 1 to December 31, 2022, and, for purposes of 2021, consists of the results obtained by VMO2 from June 1 (the date on which VMO2 was established) to December 31, 2021), and (ii) for purposes of the 2021-2020 period-on-period discussions, an analysis of the results of our former Telefónica United Kingdom segment (which, for purposes of 2021, consists of the results obtained in the first five months of the year, until the establishment of VMO2 and the elimination of the Telefónica United Kingdom segment).

- The Telxius Group ceased to be a reporting segment in 2021 as a result of the sale of the telecommunications towers divisions in Europe and Latin America to American Tower Corporation (see Note 2 to the Consolidated Financial Statements). The Telxius Group's results as well as the gain obtained for the sale of the telecommunications towers divisions, amounting to 6,099 million euros (see Notes 2 and 22 to the Consolidated Financial Statements) were recorded under "Other companies".

The segments referred to above include the information related to the fixed, wireless, cable, data, Internet and television businesses and other digital services provided in each related region. Inter-segment transactions are carried out on an arm's-length basis.

Information relating to other Group companies not specifically included in the segments referred to above is reported under "Other companies" (see Appendix I to the Consolidated Financial Statements), which includes Telefónica, S.A. and other holding companies, as well as companies whose main purpose is to provide cross-sectional services to Group companies, and other operations not included in the segments. The Incremental Group and BE-terna Group, acquired in March and June of 2022 (see Note 5 to the Consolidated Financial Statements), respectively, are reported within "Other companies". "Other companies" also includes the share of results of investments accounted for by the equity method corresponding to the fiber optic companies incorporated in 2021 and 2022 (see Note 10).

The Group centrally manages borrowing activities, mainly through Telefónica, S.A. and other companies included in "Other companies" (see Note 19, Appendix III and Appendix V to the Consolidated Financial Statements), so most of the Group's financial assets and liabilities are reported under "Other companies". In addition, Telefónica, S.A. is the head of the Telefónica tax group in Spain (see Note 25 to the Consolidated Financial Statements). Therefore, a significant part of the deferred tax assets and liabilities is included under "Other companies". For these reasons, the results of the segments are disclosed up through operating income.

Revenues and expenses arising from intra-group invoicing for the use of the trademark and management services were eliminated from the operating results of each Group segment. The results of the holding companies also exclude dividends from Group companies and impairments of investments in Group companies. These adjustments have no impact on the Group's consolidated results. In addition, segment reporting considers the impact of the purchase price allocation to the assets acquired and the liabilities assumed by the companies included in each segment. The assets and liabilities presented in each segment are those managed by the heads of each segment, regardless of their legal structure.

Significant Factors Affecting the Comparability of Our Results of Operations in the Periods under Review

The following factors affect the comparability of our results of operations in the periods under review:

Corporate transactions

The main corporate transactions in 2022 are related to the acquisition of mobile assets of Oi Group on April 20, 2022, the acquisition of the Incremental Group on March 21, 2022, the acquisition of the BE-terna Group on June 9, 2022 (see Note 5 to the Consolidated Financial Statements) and the creation of Bluevia on December 20, 2022 (see Note 2 to the Consolidated Financial Statements).

The main corporate transactions in 2021 were related to the sale of Telxius Group's telecommunications towers on June 1, 2021, June 3, 2021 and August 2, 2021, the closing of the transaction for the establishment of VMO2 on June 1, 2021 (see Note 2 to the Consolidated Financial Statements), the sale of Telefónica de Costa Rica on August 9, 2021 and the partial sale of InfraCo, SpA on July 1, 2021.

In particular, VMO2 was the result of the combination of Telefónica's and Liberty Global's operating businesses in the United Kingdom (O2 Holdings Ltd. and Virgin Media UK, respectively). Following the establishment of VMO2 on June 1, 2021, Telefónica ceased to fully consolidate the results of O2 Holdings, Ltd (and the rest of the entities that comprised its former Telefónica United Kingdom segment) in its consolidated financial statements and started to account for VMO2's results under the equity method, based on its stake in VMO2 (50%). Therefore, since June 1, 2021, the results of Telefónica's operations in the United Kingdom are reflected under a single heading of the consolidated income statement, "Share of income of investments accounted for by the equity method". However, the VMO2 segment information is presented under management criteria and shows 100% of VMO2's results. For additional information on these changes and how segment information is presented in this Annual Report, see "Item 4. Information on the Company—History and Development of the Company—Business areas".

The main corporate transactions in 2020 were related to the acquisition of 50% of the shares in Prosegur Alarmas España, S.L. by Telefónica de Contenidos, S.A.U. on February 28, 2020.

Spectrum acquisition

Spectrum acquisitions have a significant impact on our CapEx.

In 2022, these acquisitions totaled 173 million euros, mainly including 125 million euros corresponding to Colombia Telecomunicaciones and 35 million euros corresponding to Telefonica Brazil.

In 2021, these acquisitions totaled 1,704 million euros, with 706 million euros corresponding to Telefónica Brazil, 515 million euros corresponding to our former Telefónica United Kingdom segment before the establishment of VMO2 on June 1, 2021, 352 million euros corresponding to Telefónica Spain and 131 million euros corresponding to Telefónica Chile.

In 2020, these acquisitions totaled 126 million euros, with 94 million euros corresponding to Telefónica United Kingdom and 32 million euros corresponding to Telefónica Brazil.

Individual Suspension Plan

On December 28, 2021, Telefónica Spain signed a Social Pact for Employment supported by the largest trade unions. Said Pact includes the Company's differential commitments and is based on the following six lines of work: (1) equality and diversity; (2) new ways of working, flexibility and productivity; (3) incorporation and retention of talent; (4) reskilling and professional development; (5) functional and geographical mobility; and (6) a plan for the voluntary individual suspension of the employment relationship (the Individual Suspension Plan).

The present value of the estimated payment flows resulting from the Plan resulted in expenses amounting to 1,382 million euros before taxes in 2021, reflected in "Personnel expenses" (see Note 2 to the Consolidated Financial Statements).

Foreign Exchange Effects and Hyperinflation in Argentina and Venezuela

Foreign exchange rates generally had a positive impact on our 2022 results, mainly due to the appreciation of various Latin American currencies (in particular the Brazilian real) against the euro. However, foreign exchange rates had a negative impact on our reported 2021 and 2020 results, mainly due to the depreciation of various Latin

American currencies (in particular the Brazilian real) against the euro. Our reported results have also been impacted by hyperinflation adjustments in Argentina and Venezuela.

For additional information on the impact of exchange rates, see “—Exchange Rate Fluctuations” and Note 2 to the Consolidated Financial Statements.

COVID-19

The COVID-19 crisis caused the greatest GDP fall of the last decades and adversely impacted the financial and operating performance of the Group in 2020 and, to a lesser extent, 2021. Among other effects, the COVID-19 crisis contributed to the depreciation of Latin American currencies against the euro. The exchange rates evolution, mainly of the Brazilian real, adversely affected the average exchange rates used to translate the financial statements of our Latin American subsidiaries in 2020 and, to a lesser extent, in 2021.

Revenues in 2020 were also affected by the reduction in the commercial activity, which was reflected in lower service revenues and handset sales. Telefónica experienced the most significant effects during the second quarter of 2020 as lockdowns imposed across the Group's markets put unprecedented pressure on commercial activity. The impact of the pandemic in 2020 was partially mitigated by the measures taken to reduce costs (including a 33.3% reduction in CapEx in 2020) and by lower churn rates, offset in part by measures taken in certain countries in response to the pandemic, such as the offer of minimum connectivity services at a free or reduced price.

Significant Changes in Accounting Policies

Please see Notes 2 and 3.o to our Consolidated Financial Statements.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the amounts reflected in the Consolidated Financial Statements. We base our estimates on historical experience, where applicable, and other assumptions that we believe are reasonable under the circumstances. Actual results may differ from those estimates under different assumptions or conditions.

We consider an accounting estimate to be critical if:

- it requires us to make assumptions because information was not available at the time or it included matters that were highly uncertain at the time we were making our estimate; and
- changes in the estimate or different estimates that we could have selected may have had a material impact on our financial condition, results of operations or cash flows.

The various policies that are important to the portrayal of our financial condition, results of operations and cash flows include:

- accounting for non-current assets, including goodwill;
- deferred taxes;
- provisions;
- revenue recognition; and
- leases.

Non-current assets and goodwill

Property, plant and equipment and intangible assets, other than goodwill, are recorded at acquisition cost. If such assets are acquired in a business combination, the acquisition cost is the estimated fair value of the acquired property, plant and equipment or intangible assets. Property, plant and equipment and intangible assets with definite useful lives are depreciated or amortized on a straight-line basis over their estimated useful lives.

Intangible assets with indefinite useful lives are not amortized, but are, instead, subject to an impairment test on a yearly basis and whenever there is an indication that such assets may be impaired.

Accounting for non-current assets, such as long-lived assets and intangibles, involves the use of estimates for determining: (a) the fair value at the acquisition date in the case of such assets acquired in a business combination, and (b) the useful lives of the assets over which they are to be depreciated or amortized. We believe that the estimates we make to determine an asset's useful life are "critical accounting estimates" because they require our management to make estimates about technological evolution and competitive uses of assets.

Upon the sale or contribution of a controlled business to an associate or joint venture, the Group measures and recognizes any retained interest at its fair value. The fair value assigned to the retained investment is determined on the basis of the business plan of the relevant associate or joint venture, and involves significant judgments when considering significant assumptions such as regarding the long-term OIBDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate, each of which could be significantly affected by the future trends in the economic, competitive, regulatory and technological environment.

When an impairment in the carrying amount of an asset occurs, non-scheduled write-downs are made. We perform impairment tests of identifiable intangible and other non-current assets, such as equity method investments, whenever there is reason to believe that the carrying value may exceed the recoverable amount, which is the higher of the asset's fair value less costs to sell and its value in use. Furthermore, previously recognized impairment losses may be reversed when changes in the estimates used to determine the asset's recoverable amount indicate that an impairment loss recognized in prior periods no longer exists or may have decreased.

The determination of whether the impairment of non-current assets is necessary involves the use of significant estimates and judgment that includes, but is not limited to, the analysis of the cause of potential impairment in value, the timing of such potential impairment and an estimate of the amount of the impairment, which requires the estimation of the future expected cash flows, discount rates and the fair value of the assets.

Specifically, management has to make certain assumptions in respect of uncertain matters, such as growth in revenues, changes in market prices, operating margins, and technology developments and obsolescence, discontinuance of services and other changes in circumstances that indicate the need to perform an impairment test. Management's estimates about technology and its future development require significant judgment because the timing and nature of technological advances are difficult to predict.

Certain valuation techniques used for investments, such as the discounted cash flow model, require significant judgment when considering significant assumptions such as revenue growth rate, long-term EBITDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate. For information on our impairment analysis of our equity method investment in VMO2 at the end of the year, see Note 10 to the Consolidated Financial Statements.

Goodwill arises when the cost of a business combination exceeds the acquirer's interest in the net fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. Goodwill is not amortized, but is, instead, subject to an impairment test on a yearly basis and whenever there is an indication that the goodwill may be impaired.

Non-scheduled write-downs of goodwill are made when an impairment in the carrying amount of goodwill occurs. We review, on a regular basis, the performance of our cash-generating units. We compare the carrying amount of the cash-generating unit to which the goodwill has been allocated with its recoverable amount. The determination of the recoverable amount of the cash-generating unit involves extensive use of estimates and significant management judgment is involved. Methods commonly used by us for valuations include discounted cash flow methods that require substantial judgement when considering significant assumptions about relevant performance metrics and other key variables. For more information and a sensitivity analysis of the assumptions used in our impairment tests with respect to Telefónica del Perú, Ecuador and Chile, see Note 7 to the Consolidated Financial Statements.

A significant change in the facts and circumstances that we relied upon in making our estimates may have a material impact on our operating results and financial condition. For information on the sensitivity to changes in certain significant assumptions, see Note 7 to the Consolidated Financial Statements.

Deferred income taxes

The Group assesses the recoverability of deferred tax assets based on estimates of future earnings, and of all the available options to achieve an outcome, it considers the most efficient one in tax terms within the legal framework the Group is subject to. Such recoverability ultimately depends on the Group's ability to generate taxable

earnings over the period for which the deferred tax assets remain deductible. This analysis is based on the estimated schedule for reversing deferred tax liabilities, as well as estimates of taxable earnings, which are sourced from internal projections that are continuously updated to reflect the latest trends.

The recognition of tax assets and liabilities depends on a series of factors, including estimates as to the timing and realization of deferred tax assets and the projected tax payment schedule. Actual Group company income tax receipts and payments could differ from the estimates made by the Group as a result of changes in tax legislation, the outcome of underway tax proceedings or unforeseen future transactions that could affect tax balances.

Provisions

Provisions are recorded when, at the end of the period, we have a present obligation as a result of past events, whose settlement requires an outflow of resources that is considered probable and can be measured reliably. This obligation may be legal or constructive, arising from, but not limited to, regulation, contracts, common practice or public commitments, which have created a valid expectation for third parties that we will assume certain responsibilities. The amount recorded is the best estimation performed by the management in respect of the expenditure that will be required to settle the obligations, considering all the information available at the closing date, including the advice of external experts, such as legal advisors or consultants.

Because of the inherent uncertainties in this estimation, actual expenditures may be different from the originally estimated amount recognized.

If we are unable to reliably measure the obligation, no provision is recorded and information is then presented in the notes to the Consolidated Financial Statements.

Significant management criteria was involved in the recording of provisions relating to tax and regulatory contingencies in Brazil. See Notes 24, 25 and 29 to the Consolidated Financial Statements.

Revenue recognition

Bundled offers

Arrangements involving the delivery of bundled products or services are assessed to determine whether it is necessary to separate the arrangement into individual component deliverables, each with its own revenue recognition criteria.

Revenue relating to the bundled contracts is allocated to the different deliverables identified, based on their relative standalone selling prices.

Given that the handsets and airtime are price-sensitive and volatile in a competitive marketplace, the determination of standalone selling prices in the mobile phone business is quite complex.

Additionally, a significant change in the facts and circumstances upon which we based our estimates on standalone selling prices may have an impact on the allocation of revenues among the different deliverables identified and, consequently, on future revenues.

Leases

Accounting for a lessee's rights and obligations under a lease contract requires the use of estimates for determining the lease term in those contracts that include options to extend the lease or early termination options.

Determining the lease term involves making estimates over the time horizon of the Group's strategic planning process with respect to relevant factors such as expected technological progress, possible regulatory developments, market and competition trends or changes in the business model, among others. The assumptions regarding these variables involve a significant degree of judgment to the extent that the timing and nature of future changes are difficult to anticipate.

Due to the uncertainties inherent to these estimates, changes in the assumptions made in respect of uncertain matters when determining the lease term of a lease contract may have an impact on the amounts of the right of use assets and lease liabilities recognized on the basis of the estimates made by the Group.

Operating Environment

Our results of operations are dependent, to a large extent, on the level of demand for our services in the countries in which we operate. Demand for services in those countries is affected by the performance of their respective economies, particularly household private consumption, but also gross domestic product (GDP), inflation (CPI), current accounts, and unemployment rates.

After facing in 2020 the worst recession since World War II (-3.1% global GDP contraction), the global economy began a strong recovery process in 2021 (5.9% global GDP growth). This recovery continued in 2022 despite certain adverse events for global economic activity, such as broad-based high inflation rates and monetary tightening, the Russian invasion of Ukraine (with the associated volatility in energy markets), bottlenecks in global supply chains (partly as a result of China's zero-COVID policy) and extreme weather events that also impacted food-related prices. Against this backdrop, most analysts forecasted a recession in Europe during the second part of 2022 and anticipated similar concerns for the U.S. economy. However, the global economy has demonstrated a high degree of resilience supported by (i) investment projects (both public and private) to recover and foster production capacity in key areas after the pandemic (ii) accommodative fiscal stances to cushion the impact of inflation on the private sector (iii) solid nominal spending against the backdrop of strong labor markets with historical lows in unemployment and (iv) high levels of savings accumulated during the pandemic lockdowns. As a result, the global economy is estimated to have grown 3.2% during 2022 according to the International Monetary Fund. By regions, the United States is estimated to have grown 1.6%, the Eurozone 3.1%, the UK 4.1%, Latin America and the Caribbean 3.5% and China only a modest 3.2%, the lowest rate in 40 years.

Spain

In 2022 the Spanish economy showed a robust degree of resilience against the headwinds it was facing. Despite the spread of the Omicron variant of the coronavirus, the Russian invasion of Ukraine (with the associated negative energy supply shock) and the normalization of monetary policy, Spain's GDP grew 5.5% in 2022, following a 4.8% expansion in 2021 and an abrupt 10.8% decline in 2020 (compared to an annual average increase of 2.8% between 2015 and 2019). At the end of 2022, GDP was still 0.9% below pre-COVID levels. In 2022, the main contribution to GDP growth came from external demand (+2.9 p.p.) due to an apparent full recovery of the tourism sector. Internal demand contributed an additional 1.6 p.p., influenced by 5.2% investment growth, since private consumption only advanced at 1.7%, and public consumption receded 1.4%. Unemployment decreased to 12.7% at the end of the year (compared to 13.78% in 2021 and an average of 17.4% between 2015 and 2019).

Due to the energy supply shock's impact on gas and electricity prices, supply-chain pressures, and food-related commodity increases, the 12-month inflation rate peaked during 2022 at 10.8%, although the 12-month inflation rate as of December 31, 2022, fell to 5.8% (compared to 6.5% for 2021 and an annual average of 0.9% between 2015 and 2019), due, at least in part, to fiscal measures aimed to moderate this impact. On the external front, the Spanish economy has been resilient. Despite strong growth and the decline in the balance of trade prompted by the increase in energy prices, the overall current account remained at positive levels (0.6% of GDP according to Funcas compared to 0.9% in 2021 and an annual average of 2.4% between 2015 and 2019), thanks to the external openness and competitiveness earned after the Great Financial Crisis. Fiscal balance recorded a deficit equal to 4.2% of GDP for 2022, compared to a deficit equal to 6.9% of GDP for 2021 and an annual average deficit equal to 3.6% of GDP between 2015 and 2019. However, strong nominal GDP growth contributed to a reduction of the debt-to-GDP ratio to 113.1% as of December 31, 2022, according to the Bank of Spain (compared to 118.3% as of December 31, 2021, and an average year-end ratio of 100.2% between 2015 and 2019).

United Kingdom

After the stellar 2021, when GDP growth in the UK reached 7.5% (the fastest growth among all G7 economies), UK GDP grew 4.2% in 2022, according to the British Chamber of Commerce (compared to 1.7% annual growth on average between 2015 and 2019). At the end of the third quarter of 2022, the UK's GDP stood 2.2% above pre-pandemic level. Growth was led completely by internal demand, with private consumption advancing 4.7% and investment 5.3%. Government consumption advanced a moderate 1.9%.

The strong fiscal response that helped boost activity after pandemic lockdowns, together with global supply-chain bottlenecks and the external energy supply shock caused by Russia's invasion of Ukraine, has impacted the British economy via inflation. The UK's 12-month inflation rate (CPI) stood at 10.7% in November 2022 compared to 5.3% in December 2021 and 1.6% on average between 2015 and 2019. For December 2022 the Bank of England had set the main interest rate of its monetary policy operations to 3.5%, compared to 0.25% for December 2021 and 0.5% on average between 2015 and 2019. In addition, the UK is experiencing the consequences of Brexit. The UK's current account deficit plummeted to 5.8% of GDP in 2022 according to the Office for Budget Responsibility, compared to a current account deficit of 2.6% in 2021 and an annual average deficit of 4.1% between 2015 and

2019. The country's fiscal deficit stood at 6.9% of GDP for 2022, lower than the 8.0% of GDP deficit for 2021 but above the annual average deficit of 2.9% between 2015 and 2019. Against this backdrop, the GBP closed the year at 0.88 against the euro, compared to 0.84 as of December 31, 2021 and an annual average of 0.84 between 2015 and 2019.

Germany

After the rebound in GDP growth in 2021 of 2.7% that followed a GDP contraction of 4.6% in 2020, the German economy is estimated to have grown 1.8% in 2022 according to the Bundesbank, compared to an annual average of 1.7% between 2015 and 2019. Consequently, the German GDP stood at the end of the third quarter of 2022, 0.3% above pre-pandemic levels. The contribution of internal demand of 3.1 p.p. was partly offset by the decrease in external demand (-1.3 p.p.). Private consumption remained robust with 4.6% growth, supported by a tight labor market and high levels of savings accumulated during the pandemic, while gross fixed capital formation almost stagnated with 0.4% growth.

The 12-month inflation rate as measured by the Harmonized Index of Consumer Prices (HICP) rose from 3.6% in December 2021 to 8.6% in December 2022, compared to an annual average of 1.3% between 2015 and 2019. A low unemployment rate, which reached 2.8% in December 2022 (compared to 3.0% in December 2021 and an annual average of 3.3% between 2015 and 2019), contributed, among other factors, to the acceleration in unit labor costs growth rate from 0.6% in 2021 to 3.6% in 2022, all according to the Bundesbank.

Given the external supply shock and the country's historical dependency on Russian gas supplies, Germany recorded for the first time a negative trade balance during the second half of 2022, which reduced its annual current account surplus from 7.4% in 2021 to 3.4% in 2022 (compared to an annual average surplus of 8.0% of GDP between 2015 and 2019). Finally, Germany's fiscal deficit decreased to 2.8% in 2022 according to the Bundesbank, from 3.1% in 2021 (compared to an annual average surplus of 1.4% between 2015 and 2019).

Brazil

Brazilian GDP is estimated to have increased 2.7% in 2022 according to Consensus Economic Forecasts ("CFe"), reflecting mostly the end of social-distancing measures, which benefited the services sector and led to job creation, as well as fiscal stimuli. The result will be well above the -0.5% average annual growth rate between 2015 and 2019, after 5.0% growth in 2021. Brazil's GDP now stands 4.5% above pre-pandemic levels. The 12-month inflation rate, as measured by the Extended National Consumer Price Index (IPCA), was 5.8% as of December 31, 2022, above the target rate of 3.5%, but below the 12-month inflation rate of 10.1% as of December 31, 2021. The inflation decline is mostly related to tax cuts on regulated prices (fuel, electric energy and telecommunications), as well as a gradual deceleration of inflation with respect to industrial goods and services, reflecting commodity prices moderation and the initial effects of monetary policy tightening. Given the inflation scenario, the main interest rate (known as the Special System for Settlements and Custody (SELIC) rate) was increased from 9.25% at the end of 2021 to 13.75% at the end of 2022. The current account deficit would have improved by 0.8 p.p. to 2.0% of GDP in 2022 (CFe), slightly better than the annual average deficit rate of 2.6% of GDP between 2015 and 2019. Once more, the 2022 deficit was financed by capital inflows, such as foreign direct investments, despite portfolio investments outflows. The country's fiscal deficit is estimated to have widened by 1.2 p.p. in 2022 to 5.6% of GDP (compared to an annual average deficit rate of 7.9% of GDP between 2015 and 2019). Brazil's five-year credit default swap reached 254 basis points at 2022 year-end, up from 205 basis points at the end of 2021 and 143 basis points at the end of 2020. The Brazilian real appreciated against the U.S. dollar in 2022 by 5.1%. The exchange rate on December 31, 2022, was 5.29 Brazilian reals per U.S. dollar, compared to 5.58 Brazilian reals per U.S. dollar on December 31, 2021. Better-than-expected economic activity, higher interest rates and a strong trade balance benefited by elevated commodity prices have contributed to the real appreciation in 2022.

Mexico

The Mexican economy lagged behind its regional peers in recovering from the COVID-19 crisis. The country's GDP is estimated to have grown 2.4% in 2022 (CFe), slowing down from 2021 growth of 5.0%, but exceeding the annual average growth of 2.0% between 2015 and 2019. By the third quarter of 2022, Mexico's GDP stood 0.3% above pre-pandemic levels. Domestic demand was the main engine of growth, driven by strong growth of 4.9% in private consumption. The unemployment rate averaged 3.5% in 2022 (CFe), down from an annual average of 4.1% in 2021 and slightly below the annual average of 3.7% between 2015 and 2019. The 12-month inflation rate increased to 8.4% in December 2022, up from 7.4% in December 2021 (and significantly above the annual average of 4.0% between 2015 and 2019). Global supply shocks and rising demand pressures kept inflation well above its

policy target (3.0%). By December 2022, Banxico had raised its key interest rate 500 basis points since its December 2021 meeting, bringing the monetary policy rate to 10.5%.

Against the U.S. dollar, the Mexican peso appreciated by 4.8% to 19.47 Mexican pesos per U.S. dollar on average terms during 2022 (compared to an annual average exchange rate of 19.32 Mexican pesos per U.S. dollar between 2015 and 2019) on the back of an improving local economy, external tailwinds, and the conversations about the nearshoring of production processes to Mexico. Finally, the current account deficit is estimated to have worsened from 0.4% of GDP in 2021 to 1.1% of GDP in 2022 (compared to an annual average deficit of 1.8% of GDP between 2015 and 2019). Likewise, the fiscal deficit for 2022 reached 3.2% of GDP, rising 0.3 p.p. from the fiscal deficit for 2021 (2.9% of GDP) and higher than the annual average deficit of 2.0% of GDP between 2015 and 2019.

Venezuela

According to data published by the Central Bank of Venezuela (the “BCV”), the Venezuelan economy grew 17.7% in the first nine months of 2022. This growth was enhanced by increases in all economic activities, especially the oil sector, which expanded around 27% in terms of volume in the first nine months. However, oil activity continues to be affected by the lack of investment in refineries and the effect of EU economic sanctions on the industry, with the consequent reduction in the number of operating drills. According to the Organization of the Petroleum Exporting Countries (OPEC), Venezuela’s crude oil production reached 686 thousand barrels per day (“kbd”) in November 2022, almost 143 kbd more than in November 2021 but still below 2018 levels. On the other hand, the easing of exchange market conditions favored private sector investments in non-oil activities, resulting in a 14.5% accumulated growth in the first nine months of 2022. In parallel, the process of disorderly and partial dollarization continues amid the restrictions imposed by financial sanctions on the movement of foreign currency funds abroad.

During the first half of 2022, the government made efforts to maintain exchange rate stability and low inflation rates through market interventions and expenditure control. However, in the second half of the year, public expenditures accelerated, resulting in local currency depreciation and higher domestic inflation. Thus, despite the injection of 5 billion U.S. dollars into the foreign exchange market during the year, the local currency depreciated by 280% year-on-year. Meanwhile, the BCV reported a cumulative inflation rate of 119% from January to October 2022 (compared to 574% for the same period in 2021) and it is estimated to close the year around 180%, significantly below the annual inflation rates for 2021 (686%), 2020 (2,956%) and 2019 (9,585%).

Chile

The Chilean economy is estimated to have expanded by 2.3% in 2022 (CFe), significantly below 2021 growth of 11.7%, but slightly above the annual average of 2.0% between 2015 and 2019. By the third quarter of 2022, the GDP level was 9.8% above pre-pandemic levels. The economy proved resilient in the face of decreasing fiscal stimulus, the tightening of monetary policy and eroding wage purchasing power caused by high inflation. The unemployment rate averaged 7.9% in 2022 (CFe), well below the average rate of 9.1% in 2021 but 1 p.p. higher than annual average rate of 6.9% between 2015 and 2019. Compared to pre-pandemic levels, about 200,000 jobs remain to be recovered. Following global trends, CPI 12-month inflation rates accelerated in December 2022 to 12.8% from 7.2% in December 2021 (compared to a Central Bank of Chile target and an annual average of 3.0% between 2015 and 2019) due to persistent supply bottlenecks, rising commodity prices and high household liquidity. As a result, the Central Bank of Chile reacted by raising its monetary policy rate by 725 basis points to 11.25% as of December 2022.

The exchange rate closed 2022 at 859 Chilean pesos per U.S. dollar, which implies a depreciation of the Chilean currency of 1.1% with respect to the figure at the end of 2021 (850 Chilean pesos per U.S. dollar). However, if annual averages are compared, the local currency depreciated against the U.S. dollar by 15% (873 vs. 759) due to, among other factors, U.S. monetary policy tightening, fears of a global recession, the zero-COVID policy in China (which negatively affected copper prices) and an increase in domestic uncertainty associated with the Chilean Constituent Process (Chilean voters rejected a new draft Constitution in a September 2022 national plebiscite). For the first time since 2012, Chile’s fiscal account broadly balanced in 2022 (-0.1% of GDP), after having recorded a very high deficit in 2021 of 7.7% of GDP. The current account worsened 2.2 p.p. to 7.8% of GDP reflecting the strong dynamics of domestic demand observed for most of the year.

Argentina

In 2022, the Argentinian economy is estimated to have grown 4.6% (CFe) compared to a 10.4% growth rate in 2021 and an annual average growth rate of -0.2% between 2015 and 2019. Household consumption growth of

8.3%, but also better terms of trade, were the main sources of growth. By the third quarter of 2022, the level of GDP was 1.8% higher than at the beginning of the pandemic. The unemployment rate averaged 7.3% in 2022 (CFe), 1.5 p.p. lower than in 2021 (8.8%) and 1.0 p.p. lower than the annual average rate between 2015 and 2019 (8.3%). The 12-month inflation rate rose to 94.8% in December 2022, a sharp increase compared to 2021 (50.9%) and the annual average between 2015 and 2019 (38.8%) on the back of global supply shocks, monetary financing of public deficits and persistent macroeconomic imbalances. As a result, the Central Bank of the Argentine Republic (BCRA) raised its key interest rate from 38% to 75% throughout the year.

The Argentine peso depreciated 72% against the U.S. dollar in 2022, reaching 177.1 pesos per dollar at year-end, as authorities accelerated the rate of crawl to deter rising demand for dollars and meet exchange rate targets agreed with the IMF. The shortage of foreign currency and capital controls led to the emergence of a multiple-exchange-rate regime, in which the exchange rate gap between the official rate and the parallel ("blue") market rate widened to 100%. The current account is estimated to show a mild deficit of around 0.3% of GDP, which contrasts with the 2021 surplus of 1.4% of GDP, although it is better than the average annual deficit of 3.2% of GDP between 2015 and 2019. Meanwhile, the overall fiscal deficit is estimated to reach 4.0% of GDP, 0.4 p.p. above that recorded in 2021 of 3.6% of GDP, but 1.0 p.p. below the average annual deficit of 5.0% of GDP between 2015 and 2019.

It should be noted that in 2022 the country signed a new agreement with the IMF to finance 44 billion U.S. dollars of its outstanding public debt. This agreement seeks a gradual reduction of both the fiscal deficit and monetary issuance and the accumulation of international reserves by the BCRA. The objective is that by 2025, Argentina will have a fiscal balance and a solid international reserves position that will allow it to pay its debt maturities. In 2022, the fulfillment of the goals of the agreement with the IMF allowed the country to reduce macroeconomic volatility.

Colombia

Colombia's GDP is estimated to have increased by 7.2% in 2022 (CFe), following a 10.7% expansion in 2021 and an annual average growth of 2.4% between 2015 and 2019. By the third quarter of 2022, the country's GDP stood 11.1% above pre-pandemic levels. Private consumption (8.8%), supported by labor income recovery, credit growth, high remittances and improved terms of trade, was the main driver of the recovery. Meanwhile investment continued to recover slowly. Colombia's average annual unemployment rate is estimated to have declined from 13.8% in 2021 to 11.2% in 2022, but still far from annual average of 9.9% between 2015 and 2019.

Inflation accelerated sharply to 13.1% year-on-year in December 2022 (not peaking yet), the highest rate in more than two decades, well above the 5.6% year-on-year rate recorded in December 2021 and the Central Bank of Colombia's target of 3.0% and the average annual rate of 4.7% between 2015 and 2019. The upward trend in 2022 was due to several factors, such as external price shocks, exchange rate depreciation, strong recovery of aggregate demand, indexation mechanisms and internal food supply shock. In response, the Central Bank of Colombia increased its key interest rate by 900bps from 3% to 12%. The Colombian peso closed the year at 4,810 Colombian pesos per U.S. dollar, a sharp depreciation of 20% due to political uncertainty, higher levels of risk premium and the global macroeconomic environment.

Colombia's current account deficit is estimated to have reached 20.5 billion U.S. dollars in 2022 (6% of GDP), levels not seen since 2015 when oil prices fell sharply. The annual average between 2015 and 2019 was 4.6% of GDP. This deterioration is explained by the strong increase in imports and the increase in profit remittances from companies with foreign capital operating in the country. On the fiscal front, the central government's deficit decreased to 5.5% of GDP in 2022 from 7.1% in 2021 and 7.8% in 2020, compared to an annual average of 3.2% between 2015 and 2019, mainly due to higher tax revenues in a context of high commodities prices and healthy levels of economic activity. In the political front, and under the impetus of the new president Gustavo Petro, Colombia's congress approved a new tax reform aimed to increase revenues by 1.3% and 1.4% of GDP in 2023 and 2024, respectively.

Peru

In 2022, the economy is estimated to have grown 2.7% (CFe) following the 13% rebound in 2021 and an annual average growth rate of 3.2% between 2015 and 2019. This leaves Peru's GDP 3.8% above its pre-pandemic levels, driven mainly by higher consumption (given the fast job recovery), pension fund withdrawals and rapid credit growth. The unemployment rate is estimated to have declined 3.6 p.p. in 2022 to 7.7% (CFe) compared to 2021, but it is still below its average annual rate of 6.7% between 2015 and 2019. Employment has recovered and is above pre-pandemic levels, but informality has increased, reaching 70% of the workforce. Inflation peaked at 8.8% year-on-year in June 2022 and has been on a downward trajectory since then (8.5%) year-on-year as of December

2022 compared to an annual average of 2.6% between 2015 and 2019). In response, the Central Reserve Bank of Peru raised its policy key rate from 2.50% in December 2021 to 7.50% in December 2022.

The Peruvian nuevo sol appreciated 4.3% against the U.S. dollar in 2022 reaching 3.81 Peruvian nuevos soles per U.S. dollar at year-end, which contrasts with the depreciation experienced in 2021 (10%). The current account deficit is estimated to have worsened in 2022 by 1.3 p.p. to 3.6% of GDP (compared to an annual average deficit of 2.0% of GDP between 2015 and 2019). In contrast, Peru's fiscal deficit is estimated to have improved by 0.6 p.p. to 1.9% of GDP (compared to an annual average deficit of 2.2% of GDP between 2015 and 2019), well below the limit of 3.7% foreseen by the fiscal rule, thanks to higher tax revenues in a context of high commodity prices.

In December 2022, President Pedro Castillo was impeached and arrested on charges of rebellion after announcing that he would shutter Peru's Congress and rule by decree. Vice President Dina Boluarte replaced Castillo, and she is expected to remain in office until new presidential elections are held.

Exchange Rate Fluctuations

We publish our Consolidated Financial Statements in euros. Because a substantial portion of our assets, liabilities, revenues and expenses are denominated in currencies other than the euro, we are exposed to fluctuations in the values of these currencies against the euro. Currency fluctuations have had and may continue to have a material impact on our financial condition, results of operations and cash flows.

We estimate that in 2022 variations in currencies contributed to the year-on-year increase in our consolidated revenues by approximately 4.5 percentage points. Currency fluctuations can also have a significant impact on our statement of financial position, particularly equity attributable to equity holders of the parent, and on our statement of cash flows, when translating the financial statements of subsidiaries located outside the Eurozone into euro. In 2022 translation differences had a positive impact on equity attributable to equity holders of the parent of 1,169 million euros. In addition, our cash and cash equivalents increased by approximately 156 million euros due to the translation of the financial statements of our foreign subsidiaries, principally due to the appreciation of the Brazilian real relative to the euro.

We estimate that in 2021 variations in currencies contributed to the year-on-year decrease in our consolidated revenues by approximately 2.3 percentage points. In 2021 equity attributable to equity holders of the parent increased by 4,088 million euros (impacted by the negative translation differences of Telefónica United Kingdom accumulated in equity at June 1, 2021 and reclassified to the income statement as a result of the establishment of VMO2 (see Note 2 to the Consolidated Financial Statements), for an amount of 3,135 million euros). In addition, our cash and cash equivalents decreased by approximately 179 million euros due to the translation of the financial statements of our foreign subsidiaries, principally due to the depreciation of the Brazilian real relative to the euro.

We estimated that in 2020 variations in currencies decreased year-on-year growth in our consolidated revenues by approximately 6.5 percentage points. In 2020 equity attributable to equity holders of the parent decreased by 5,801 million euros and cash and cash equivalents decreased by approximately 402 million euros due to the translation of the financial statements of our foreign subsidiaries, principally due to the depreciation of the Brazilian real relative to the euro.

Venezuela is considered as a hyperinflationary economy since 2009. The inflation rates used to prepare the financial information included herein are based on the National Consumer Price Index of Venezuela (Indice Nacional de Precios al Consumidor de Venezuela) published by the Central Bank of Venezuela, or where a definitive index is not available, the best estimation. On an annual basis, these rates are 174.3%, 686.4% and 2,959.8% for 2022, 2021 and 2020, respectively. The exchange rates used to convert items denominated in Venezuelan bolivar, once adjusted for inflation, in the Consolidated Financial Statements are the closing rates as of December 31, 2022, 2021 and 2020, which were 45.18 bolivar digital per U.S. dollar (synthetic exchange rate), 16.47 bolivar digital per U.S. dollar (synthetic exchange rate) and 2,094,405 bolivar soberano per U.S. dollar (synthetic exchange rate), respectively. The bolivar fuerte was devalued in October 2021 and a new currency, the bolivar digital, was adopted.

Argentina is considered as a hyperinflationary economy since July 2018. The inflation rates used to prepare the financial information included herein are based on the National Consumer Price Index of Argentina (Indice de Precios al Consumidor con Cobertura Nacional de Argentina) published by the Central Bank of Argentina, or where a definitive index is not available, the best estimation. On an annual basis, this rate was 94.79% for 2022, 50.94% for 2021 and 36.1% for 2020. The exchange rate used to convert items denominated in Argentine peso, once

adjusted for inflation, in the Consolidated Financial Statements are the closing rates as of December 31, 2022, 2021 and 2020, which were 177.1, 102.7 and 84.1 Argentine pesos per U.S. dollar, respectively.

The table below sets forth the average exchange rates against the euro of the U.S. dollar and the key currencies that impacted our consolidated results of operations for the periods indicated. Positive percentage changes represent a decline in the value of the applicable currency relative to the euro, and negative percentage changes represent increases in the value of the applicable currency relative to the euro.

	2020 (1)	2021 (1)	2022 (1)	% change 2020 vs 2021	% change 2021 vs 2022
	Average	Average	Average	Average	Average
Pound Sterling	0.89	0.86	0.85	(3.29%)	(0.83%)
U.S. Dollar	1.14	1.18	1.05	3.69%	(11.10%)
Brazilian Real	5.81	6.37	5.42	9.66%	(15.00%)
Argentine Peso (2)	103.23	116.37	189.08	12.73%	62.48%
Peruvian Nuevo Sol	3.98	4.59	4.03	15.26%	(12.09%)
Chilean Peso	901.81	896.59	916.52	(0.58%)	2.22%
Mexican Peso	24.36	23.98	21.12	(1.57%)	(11.89%)
Venezuelan Bolivar Digital (2)(3)	2.57	18.65	48.23	n.m.	n.m.
Colombian Peso	4,197.73	4,425.64	4,452.39	5.43%	0.60%

Notes:

n.m.:not meaningful

Source: Central treasury bank of the respective countries, except with respect to the Venezuelan bolivar digital

- (1) These exchange rates are used to convert the income statements of our subsidiaries from local currency to euro.
- (2) As Venezuela and Argentina are considered to be hyperinflationary economies, the income statement from operations in each such country is accounted for pursuant to the closing exchange rate of the relevant local currency to euro.
- (3) Due to the depreciation of the Venezuelan Bolivar Soberano, a new currency was created in 2021 called Bolivar Digital. For comparative purposes the value of the Venezuelan Bolivar Soberano in 2020 was divided by one million.

We describe certain risks related to exchange rate fluctuations in “Item 3. Key Information—Risk Factors,” and we describe our policy with respect to limiting our exposure to short-term fluctuations in exchange rates under “Item 11. Quantitative and Qualitative Disclosures About Market Risk.”

Group Results of Operations

Please see “Item 4. Information on the Company — Business Overview”.

B. Liquidity and Capital Resources

Cash Flow Analysis

The table below sets forth consolidated cash flow information for the years indicated. Positive figures refer to cash inflows and those in parentheses refer to cash outflows.

	2020	2021	2022
(Millions of euros)			
Net cash from operating activities	13,196	10,268	11,763
Net cash from (used in) investing activities	(7,790)	5,896	(5,327)
Net cash used in financing activities	(5,438)	(12,990)	(7,925)

Net cash from (used in) investing activities was significantly impacted in 2021 by the cash received from the sale of the tower divisions of the Telxius Group and the incorporation of VMO2.

For additional details regarding our cash flows for the years ended December 31, 2020, 2021 and 2022, please see the Consolidated Statements of Cash Flows and Note 28 to our Consolidated Financial Statements.

Anticipated Uses of Funds

Our principal liquidity and capital resource requirements consist of the following:

- costs and expenses relating to the operation of our business;
- debt service requirements relating to our existing and future debt;
- capital expenditures (including spectrum acquisitions) for existing and new operations;
- acquisitions of new licenses or other operators or companies engaged in complementary or related businesses; and
- dividends, other shareholder remuneration, and pre-retirement payments.

In 2023, we expect to continue transforming our networks, evolving them towards all-IP hyper-connected networks, by investing in FTTx in key markets, and by expanding our mobile networks with LTE in most of our operations. We also expect to continue investing in TV and digital services to take advantage of the opportunities in the digital markets. We may also use funds to acquire new licenses engaged in complementary or related businesses in the digital world.

We also have liquidity requirements related to the costs and expenses relating to the operation of our business, financial investments (including investment commitments with joint venture partners), our payment of dividends, shareholder remuneration and pre-retirement payment commitments.

We also have liquidity constraints related to debt service requirements in connection with our existing and future debt. At December 31, 2022, we had gross financial debt of 39,079 million euros compared with 42,295 million euros at December 31, 2021. For the amortization schedule of our consolidated gross financial debt at December 31, 2022 and a further description of financing activity in 2022, see “—Anticipated Sources of Liquidity” below. Our net financial debt increased by 601 million euros to 26,687 million euros at December 31, 2022, compared with 26,086 million euros at December 31, 2021, despite a positive free cash flow generation of 4,566 million euros. This was due to (i) net financial investments of 1,000 million euros (mainly relating to the acquisition of Oi’s mobile assets, the acquisition of BE-terna Group and Incremental Group, net of the sale of Telefónica El Salvador and the fiber sale operations in Colombia and Spain), (ii) shareholder remuneration of 1,688 million euros (including coupon payments of capital instruments), (iii) labor-related commitment payments of 853 million euros, and, (iv) other net factors totaling 1,626 million euros (mainly the higher value in euros of net debt in foreign currencies, highlighting the impact of the appreciation of the Brazilian real, spectrum renewal in Colombia and, as an offset, the application of the favorable court ruling in Brazil).

For a reconciliation of net financial debt to gross financial debt, see “—Presentation of Financial Information—Non-GAAP Financial Information—Net financial debt and net financial debt plus commitments”.

The following table describes our contractual obligations and commitments with definitive payment terms which may require significant cash outlays in the future. The amounts payable (including accrued interest payments) are as of December 31, 2022. For additional information, see our Consolidated Financial Statements.

Millions of euros	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Financial liabilities (1)	39,079	4,020	5,827	7,490	21,742
Lease liabilities (2)	8,677	2,020	3,105	1,698	1,854
Purchase and other contractual obligations (3)	12,285	3,991	4,269	2,281	1,744
Other liabilities (4)	2,630	720	1,910	—	—
Total	62,671	10,751	15,111	11,469	25,340

- (1) Estimated future interest payments as of December 31, 2022 on our interest-bearing debt (not included above) are as follows: 1,254 million euros in 2023, 1,147 million euros in 2024, 1,057 million euros in 2025, 978 million euros in 2026, 871 million euros in 2027 and 7,840 million euros in subsequent years. With respect to floating rate debt, we estimate future interest payments as the forward rates derived from yield curves quoted for the different currencies on December 31, 2022. This item includes the fair value of derivatives classified as financial liabilities (i.e., those with a negative mark-to-market) and excludes the fair value of derivatives classified as current financial assets (712 million euros), and those classified as non-current (2,668 million euros) (i.e., those with a positive mark-to-market). For a more detailed description of our financial derivative transactions, see Note 19 to our Consolidated Financial Statements. For details of the composition of this item, see “—Liquidity and Capital Resources—Anticipated Sources of Liquidity”).
- (2) This item includes lease liabilities. For a more detailed description see Note 20 to our Consolidated Financial Statements.
- (3) This item includes definitive payments (non-cancellable without penalty cost) due for agreements to purchase goods (such as network equipment) and services. For a more detailed description see Note 26 to our Consolidated Financial Statements.
- (4) “Other liabilities” include: (a) long-term obligations that require us to make cash payments, excluding financial debt obligations included in the table under “Financial Liabilities” above and (b) other provisions. Because of the nature of the risks covered by “Other liabilities” such as other provisions, it is not possible to determine a reliable schedule of potential payments, if any. For details of the composition of other provisions, see Note 24 to our Consolidated Financial Statements.

Commitments for short-term leases and low value leases amounted to 33 million euros as of December 31, 2022.

In addition, at December 31, 2022, we had short-term and long-term employee benefits provisions amounting to 885 million euros and 4,093 million euros, respectively, not included in the table above (see Note 24 to our Consolidated Financial Statements) and non-current and current account payables, such as trade payables, payables to suppliers of property, plant and equipment and payables for spectrum acquisitions, amounting to 1,914 million euros and 12,018 million euros, respectively (see Notes 21 and 22 to our Consolidated Financial Statements), not included in the table above.

In addition, at December 31, 2022, VMO2 had commitments amounting to 6,877 million euros related to purchase, programming, network and connectivity and other commitments not included in the table above (see Note 10 to our Consolidated Financial Statements).

For details of the composition of, and changes in, our debt, see “—Liquidity and Capital Resources—Anticipated Sources of Liquidity” and Note 18 “Financial Liabilities” to our Consolidated Financial Statements.

For a discussion of our liquidity risk management policy, see Note 19 to our Consolidated Financial Statements.

Anticipated Sources of Liquidity

Cash flows from operations are our primary source of cash funding for existing operations, capital expenditures, investments, licenses, interest obligations and principal payments. We also rely on external financing, including a variety of short, medium and long-term financial instruments, principally bonds and debentures, undated deeply subordinated securities and borrowings from financial institutions. Cash and cash equivalents are mainly held in euros and euro-denominated instruments.

We hold most our cash and cash equivalents in demand and in various terms up to three-month time deposits in euro. Additionally, we hold cash and cash equivalents in time deposits in U.S. dollars, typically with a term of less than one year. These transactions are executed with financial counterparties that have credit ratings that satisfy Telefónica's standards.

In recent years, we raised funds by issuing principally equity instruments (undated deeply subordinated securities and mandatory convertible notes) and debt securities, and we may issue additional equity or debt securities at any time. We have also raised funds through a series of asset divestitures. In 2022, the main sources of funds from divestitures came from the completion of the agreement with Vauban and CAA for the deployment and commercialization of a fiber FTTH network mainly in rural areas in Spain, the sale of the entire share capital of Telefónica Móviles El Salvador and the agreement reached between Telefónica Colombia and a Colombian company controlled by KKR, for the sale of fiber assets and for the provision of connectivity services and deployment of the fiber network. See "Item 10. Additional Information—Material Contracts".

Financing

The following table shows the amortization schedule of our consolidated gross financial debt at December 31, 2022 as stated in euro, excluding estimated future interest payments. We may have exchange rate financial derivatives as instruments assigned to the underlying debt instruments. The table below includes the fair value of derivatives classified as financial liabilities (i.e., those with a negative mark-to-market) and excludes the fair value of derivatives classified as current financial assets (712 million euros), and those classified as non-current (2,668 million euros) (i.e., those with a positive mark-to-market). For description of the liquidity risk we face, see Note 19 to our Consolidated Financial Statements, and for a description of our financial liabilities, see Note 18 to our Consolidated Financial Statements.

Millions of euros									
Maturity	Current		Non-current				Subsequent years	Non-current total	Total
	2023	2024	2025	2026	2027				
Debentures and bonds	1,948	1,130	3,126	2,098	4,170	18,796	29,320	31,268	
Promissory notes & commercial paper	544	127	54	12	3	159	355	899	
Total Issues	2,492	1,257	3,180	2,110	4,173	18,955	29,675	32,167	
Loans and other payables	1,184	673	572	202	376	1,537	3,360	4,544	
Derivative instruments	344	80	65	109	520	1,250	2,024	2,368	
Total	4,020	2,010	3,817	2,421	5,069	21,742	35,059	39,079	

Notes:

- Estimated future interest payments as of December 31, 2022 on our interest-bearing debt (not included above) are as follows: 1,254 million euros in 2023, 1,147 million euros in 2024, 1,057 million euros in 2025, 978 million euros in 2026, 871 million euros in 2027 and 7,840 million euros in subsequent years. With respect to floating rate debt, we estimate future interest payments as the forward rates derived from yield curves quoted for the different currencies on December 31, 2022.

During 2022, we obtained financing (excluding the refinancing of euro commercial paper and short-term banking loans) totaling approximately 15,009 million euros of which 8,849 million euros was at the Group level, 1,740 million euros were obtained by VMO2 (the joint venture in the UK with Liberty Global plc), 599 million euros were obtained by Cornerstone Telecommunications Infrastructure Limited (a joint venture of Vantage Towers AG and VMO2), 61 million euros were obtained by FiBrasil (the joint venture in Brazil with CDPQ) and 3,760 million euros were obtained by nexfibre, the joint venture formed by Liberty Global (25%), T. Infra (25%) and Infravia (50%). Telefónica's financing activity was focused on maintaining a solid liquidity position, as well as refinancing and maintaining long debt maturities.

For a description of our financing, see Note 18 to our Consolidated Financial Statements.

As permitted under Rule 13-01(a)(4)(vi) of Regulation S-X, we have excluded the summarized financial information for Telefónica Emisiones, S.A.U and Telefónica Europe, B.V. because they are both considered to be a "finance subsidiary" (as defined in such Rule) of Telefónica, S.A., the debt securities issued by them are fully and unconditionally guaranteed by Telefónica, S.A., and no other subsidiaries of Telefónica, S.A. guarantee their debt issuances.

Our borrowing requirements are not significantly affected by seasonal trends.

Availability of funds

At December 31, 2022, we had funds available (including cash and cash equivalents, undrawn lines of credit and current financial assets) totaling 21,413 million euros. This amount included: undrawn lines of credit for an amount of 11,737 million euros (11,434 million euros expiring in more than 12 months); cash and cash equivalents; and certain current financial assets.

We believe that, in addition to internal generation of funds, our working capital, our medium-term note program, our euro commercial paper program, our corporate domestic promissory note program and available lines of credit will allow us to meet our future capital requirements, including (according to our liquidity policy) gross debt maturities in the next 12 months.

For a description of our liquidity and undrawn lines of credit available at December 31, 2022, see Note 18 to our Consolidated Financial Statements, and for a discussion of our liquidity risk management and our capital management, see Note 19 to our Consolidated Financial Statements.

Telefónica, S.A. is the parent company of the Telefónica Group and receives funding from its subsidiaries in the form of dividends and loans. Consequently, certain restrictions on the ability of the Group's subsidiaries to transfer funds to Telefónica, S.A. in the form of cash dividends, loans or advances, capital repatriation and other forms would negatively affect our liquidity and thus our business.

Certain Latin American economies, such as currently Venezuela or Argentina, have experienced shortages in foreign currency reserves and their respective governments have adopted restrictions on the ability to transfer funds out of the country and/or convert local currencies into U.S. dollars. This may limit our ability to repatriate funds out of certain subsidiaries from such countries. Regarding net repatriation of funds to Spain, in 2022 we received 693 million euros from our Latin American subsidiaries, of which 652 million euros were related to dividends.

Credit Ratings

Our ability to use external sources of financing will depend largely on our credit ratings. We believe that we are well-positioned to raise capital in financial markets. However, negative conditions in the financial markets or a downgrade of any of the ratings of our debt or the Kingdom of Spain's debt by any of Fitch, Moody's and/or Standard & Poor's may increase the cost of our future borrowings or may make it more difficult to access the public debt markets. In connection with the credit rating agencies' review of our debt ratings, the rating agencies may give considerable weight to general macroeconomic and political conditions (including sovereign credit rating prospects), the performance of our businesses in countries where we operate, our financial and shareholder remuneration policy, our M&A and divestiture policy, our ability to integrate acquired companies and our ability to refinance debt.

At December 31, 2022, Telefónica, S.A.'s long-term issuer default rating is "BBB stable outlook" from Fitch, "BBB-stable outlook" from Standard & Poor's and "Baa3 stable outlook" from Moody's. During 2022, there have not been changes in the long-term credit ratings by any of the three agencies. The latest changes in the credit ratings took place in 2020 when Standard and Poor's revised the outlook to "negative" from "stable" on April 1, 2020 and later, on November 20, 2020 downgraded the rating to "BBB - stable" from "BBB negative". On November 7, 2016 Moody's downgraded the rating to "Baa3 stable" from "Baa2 negative" and on September 5, 2016 Fitch downgraded the rating to "BBB stable" from "BBB+ stable".

In 2022, measures taken to protect the credit rating included an active portfolio management through the closing of the sale of the entire share capital of Telefónica Móviles El Salvador. Telefónica also closed various strategic deals to reinforce its business profile, such as the agreement reached between Telefónica Colombia and a Colombian company controlled by KKR, for the sale of fiber assets and for the provision of connectivity services and deployment of fiber network. In December, Telefónica closed the agreement with Vauban Infrastructure Partners and

Crédit Agricole Assurances for the deployment and commercialization of a FTTH network mainly in rural areas in Spain.

Additionally, Telefonica maintains a solid liquidity position and conservative approach to debt refinancing, as the Group took advantage of the historical low refinancing rates in recent years to extend average debt life and smooth its maturity profile in coming years.

Intra-group Loans

We lend funds to our operating subsidiaries, directly or through holding companies that head our different lines of business. At December 31, 2022, companies in the Telefónica Group owed Telefónica, S.A. a total of 1,715 million euros (3,772 million euros at December 31, 2021), including amounts due under intra-group loans and dividends distributed and uncollected at December 31, 2022. Funds provided by Telefónica, S.A. to its subsidiaries are derived from retained cash flows, loans, bonds, issuances of undated deeply subordinated securities and other sources (such as dividends and asset disposals). For additional information, see "Item 7. Major Shareholders and Related Party Transactions—Related Party Transactions—Intra-Group Loans".

C. Research and Development, Patents and Licenses, etc.

Telefónica remains committed to technological innovation as a fundamental tool for being one of the main players in the new digital universe, contributing to the creation of a more sustainable world while achieving competitive advantages and distinctive products. By introducing new technologies and developing business solutions and processes, we aim to become a more effective, efficient and customer-oriented Group.

Telefónica bases its innovation strategy on the balance between two main models:

- First, through our internal research, development and innovation (R&D&I), for which we have developed our own innovation model, which allows us to leverage R&D&I results and capabilities in developing commercial products and services benefiting from knowledge gained in collaborations with research centers, technological institutes and universities, amongst other sources; and
- Second, through the creation of open innovation ecosystems, in which the “Wayra” initiative stands out as a global program designed to connect entrepreneurs, start-ups, investors, venture capital funds and public and private organizations around the world to promote innovation in collaboration with other actors.

In addition to these two models, Telefónica seeks to promote the development of sustainable solutions that generate a positive impact on the environment and on the economic, social and technological progress of the regions in which we operate. To this effect, Telefónica invests in promoting sustainable innovation projects and in the activities that improve the accessibility of our solutions to all groups.

Internal Research, Development and Innovation:

Telefónica believes that competitive advantage cannot be based solely on acquired technology, and so has considered the promotion of internal R&D&I activities as a strategic axis, in an effort to achieve this differentiation and move forward in other activities which support the sustainability of our business.

To this end, Telefónica Group’s internal innovation policy focuses on contributing solutions that support Telefónica’s commitment to developing a responsible business under the criteria of economic, societal and environmental sustainability, by:

- Developing new products and services that enable growth and competition in an increasingly global environment, while being adapted to the diversity and local needs of each market;
- Increasing the revenue potential related to new products by creating value from the intellectual property rights of the generated technology;
- Increasing our customers' loyalty and satisfaction;
- Increasing the revenues, profits and value of the Company;
- Increasing the quality of our infrastructure and services;

- Strengthening our relationship with our technology and solutions providers; and
- Improving business processes and operations with the aim of optimizing resources, increasing efficiency and reducing environmental impact.

During 2022, we carried out numerous technological innovation projects focused on sustainability, process efficiency, the creation of new sources of revenue, customer satisfaction, the consolidation of our presence in new markets and technological leadership.

The technological innovation activities of Telefónica are focused on three main areas:

a. Telecommunication networks. These activities aim at developing and integrating new assets and components into our networks and systems, with three main pillars: (i) next generation of network technologies such as the evolution of 5G and the early development of 6G networks, new in-home networks, open and disaggregated technologies, including efficiently deploying the network in remote, sparsely populated or difficult-to-serve areas, and networks that incorporate quantum technologies; (ii) cloud-native and fully virtualized, software-based network architectures, which enable us to have a more flexible and adaptable network that is dynamically adaptable to the new requirements of digital services and customers, in line with the “network slicing” paradigm and furthermore offering this adaptation capabilities to network users under a “Network as a Service” model; and (iii) Data-based Artificial Intelligence driven operations.

b. The development of new products and services which are carried out within the framework of the digital services strategy. Products and services for the mass market include: financial inclusion, healthcare, entertainment services, etc. Products and services for the B2B market include: a wide portfolio of cloud and cybersecurity services, IoT platforms and connectivity, Big Data, Artificial Intelligence and blockchain, with vertical services tailored to rural connectivity, programmatic advertising, mobility or energy efficiency sectors, among many others

c. Experimental and applied research: With a medium and long-term outlook, Telefónica also has specialized scientific groups whose mission is to investigate the possibilities of new networks and services and to solve the technological, social and environmental challenges that arise. These activities include research and development in fields like the Metaverse, Web3 or the application of Artificial Intelligence to sports and natural language processing.

The total research and development (“R&D”) expense in the Group for 2022 amounted to 656 million euros, 21.4% lower than the 835 million euros incurred in 2021 (959 million euros in 2020), mainly due to exclusion of Telefónica United Kingdom from the consolidation perimeter in 2021. These expenses represented 1.6%, 2.1% and 2.2% of the Group’s consolidated revenues for 2022, 2021 and 2020, respectively. For comparison purposes, the investment in R&D in 2021, excluding the companies in the former Telefónica United Kingdom segment that now fall outside of the consolidation perimeter, amounted to 689 million euros, 4.7% higher than in 2022. These figures were calculated using guidelines of the Organization for Economic Co-operation and Development (“OECD”) manual.

During 2022, Telefónica registered 14 new patent applications, 10 of which were European applications, and four of which were international applications (PCT). All of them were registered through the Spanish Patent and Trademark Office (OEPM). Moreover, two new industrial design families with European and Chilean scope were registered through the European Union Intellectual Property Office (EUIPO). This means a decrease of 12.5% in the number of new patents, compared with the 16 patent applications of 2021 (14 in 2020).

At the end of 2022, the Telefónica Group had a portfolio of 344 active patents, 91 industrial designs and nine utility models, resulting in a portfolio of 444 registered intangible assets (421 as of December 31, 2021).

Open Innovation

Wayra is Telefónica’s main Open Innovation program. It connects Telefónica and technological disruptors around the world. We seek to become their preferred strategic partner, with a view to accelerate their business and ours. Wayra offers a unique and smooth interface between entrepreneurs and our network of corporate, government and other partners, adding value to the ecosystems where we are present.

Wayra has eight physical hubs in Europe and Latin America serving nine countries. In 2020 Telefónica launched Wayra X, a 100% digital hub. In 2021 Wayra launched Wayra Builder, to capitalize on existing technology and talent

and create our own startups from scratch, and Wayra Next Trend, to allow start-ups to connect with the consumer market.

In addition to Wayra, Telefónica's Connected Open Innovation family includes:

a. Open Future, which is the Regional Open Innovation Strategy of Telefónica in partnership with public and private entities. Present in 30 hubs worldwide, we foster the development of the regional entrepreneurial ecosystems and support more than 800 startups. Our goal is to decentralize and democratize entrepreneurship.

b. Open Innovation Campus, a new collaboration model with the academia, that helps connect Telefónica with young talent.

c. Telefónica Ventures, which is Telefónica's corporate venture vehicle for strategic investments. Telefónica Ventures aims to address the big challenges facing the telecommunications industry and create new businesses leveraging cutting edge technology. It invests, directly in startups or through a network of leading venture capital funds in key markets, to build strategic partners fully aligned with the Group's global strategy.

Telefónica launched Wayra in 2011. Since then, it has helped create and transform local entrepreneurship ecosystems in Europe and Latin America investing more than 65 million euros in more than 850 startups, contributing to the creation of more than 10,000 highly skilled jobs.

Wayra invested in 40 startups in Europe and Latin America in 2022, for a total amount of 5.7 million euros and had interests in more than 450 active startups by the end of 2022. Telefónica Ventures devoted more than 20 million euros to several strategic investments in 2022.

Through these various programs, Telefónica has invested in more than 1,000 startups, and more than 300 startups have worked with Telefónica and its customers, generating through some of their solutions more than 600 million euros in revenues for Telefónica.

D. Trend Information

In 2022, inflation rates were significantly higher than normal, reaching four-decade highs in many countries, particularly in Europe. In Telefónica, we have been operating in high-inflationary environments for decades and feel we are better prepared to face this environment than others. To mitigate increasing costs, Telefónica is managing top line, OpEx and CapEx. On top line, Telefónica has relied on pricing power and inflation pass-through across its segments. On OpEx, Telefónica is managing operating expenses engaging in significant long-term hedging on energy prices and, overall, by focusing on cost efficiencies. On CapEx, Telefónica is benefiting from having made significant FTTH deployment ahead of the current inflationary environment, having passed the peak of investments in prior years, and also by developing new models for infrastructure investments, through which the company shares the effort with partners via fiber joint ventures.

Furthermore, in 2022, the foreign exchange effect has positively affected Telefónica's results, after several years of negative impacts, mitigating the effects of inflation in Europe and certain Latin American markets and changes in the consolidation perimeter.

The Company has taken several steps designed to address recent trends (including increasing costs as a result of inflation and increased interest rates, the erosion of the Group's traditional business and increased competition) and to face future uncertainties such as:

- First, while Telefónica has a long track record of generating cost efficiencies, we still have a long way to go in terms of digitalization and automation of sales channels and customer care, process improvements and modernization and rationalization of the network, such as switching from copper to fiber and legacy switch-off. In 2022, Telefónica has taken steps to hedge through long-term price agreements / power purchase agreements (PPAs), and intends to maintain a similar hedged ratio level of consumption for 2023 as in 2022. In 2023 we will have 71% of our energy needs hedged.

- Second, the Company reduced costs with a redundancy program in Spain last year and intends to achieve cost efficiencies in 2023 due to the realization of synergies in the United Kingdom and Brazil, among other things.
- Third, Telefónica believes telecom spending will be resilient to price increases as digitalization and digital communications become increasingly important, as experienced during the COVID-19 pandemic.
- Fourth, in order to mitigate the intense competition in the markets where Telefónica operates, either through the entry of new competitors (either new players or providers of OTT Services), mergers of operators in certain markets (e.g. market consolidation in the United Kingdom following a potential merger of mobile operators Vodafone UK and Three UK) or changes in competitive dynamics in the different markets in Latin America, with aggressive customer acquisition offers, with unlimited data and discounts on certain services.
- Lastly, we seek to diversify our revenue mix with adjacent businesses. These efforts include:
 - Solar 360, a joint venture of Repsol and Telefónica Spain, formed to develop a solar self-consumption business;
 - Movistar Prosegur Alarmas, a security joint venture formed by Prosegur and Telefónica Spain in September 2020; and
 - Vivo Ventures, a corporate venture capital fund created with Telefonica Open Innovation, through which Telefónica has committed to invest in the Brazilian "fintech" Klavi, to reinforce Telefónica's presence in the financial solutions sector.

On November 27, 2019 the Company presented the following strategic decisions, which continue to guide Telefónica's actions:

- Focus on our four key markets: Spain, Brazil, Germany and the United Kingdom (in-market consolidation with the creation of VMO2 in the UK).
- The creation of Telefónica Tech, the fast-growing technology company involving Cybersecurity & Cloud Tech and IoT & Big Data Tech, leveraging on strong capabilities to help customers digitally transform. During the past two years, Telefónica Tech has proactively reinforced its capabilities through acquisitions, including BE-terna Group and Incremental Group in 2022 and Cancom UK&I, Altostratus and Geprom in 2021.
- The creation of Telefónica Infra, which has focused on pursuing value creation opportunities in recent years, in line with the Group's strategy of crystallizing the value of its infrastructure assets and capabilities and improving the competitive position of Telefónica's operating business units by accelerating their FTTH rollout, while capturing future value upside from its infrastructure assets and co-investments. The creation of fiber vehicles or joint ventures to which certain assets and capabilities of the Group are transferred, and in which the Group typically retains minority interests (such as Bluevia in Spain, Onnet Fibra Colombia S.A.S in Colombia and nexfibre in the United Kingdom) in 2022, and the creation of UGG in Germany, FiBrasil in Brazil and InfraCo in Chile in 2021) has allowed for the monetization of part of the Group's assets and capabilities and the creation of growth opportunities, together with a pipeline of potential value-accretive infra deals.
- Reduce exposure to Latin America with a new operational model and portfolio simplification, capturing growth opportunities and operational synergies and optimizing CapEx.
- Simplify Telefónica's operating model overall.

E. Critical Accounting Estimates

Not applicable.

F. Non-GAAP Financial Information

In addition to the measures expressly defined in the IFRS, the Group also uses a series of other measures for decision-making because they provide additional information useful to assess the Group's performance, solvency and liquidity. These measures should not be viewed in isolation or as a substitute for the measures presented according to the IFRS.

The non-GAAP financial measures included in this Annual Report are operating income before depreciation and amortization (OIBDA), OIBDA-CapEx, OIBDA-CapEx excluding spectrum acquisitions, net financial debt, net financial debt plus leases, net financial debt plus commitments, net financial debt plus leases plus commitments and free cash flow.

Operating income before depreciation and amortization

Operating income before depreciation and amortization (OIBDA) is calculated by excluding solely depreciation and amortization from operating income. OIBDA is used to track the performance of the business and to establish operating and strategic targets of Telefónica Group companies. OIBDA is a commonly reported measure and is widely used among analysts, investors and other stakeholders in the telecommunications industry. However, it is not a measure expressly defined in the IFRS and therefore it may not be comparable to similar indicators used by other companies. OIBDA should not be considered as a substitute for operating income.

Furthermore, the Group management uses the measure OIBDA margin, which is the result of dividing the OIBDA by the revenues.

The following table provides a reconciliation of our OIBDA to operating income for the periods indicated.

Millions of euros	Year ended December 31,		
	2020	2021	2022
Operating income	4,139	13,586	4,056
Depreciation and amortization	(9,359)	(8,397)	(8,796)
Operating income before depreciation and amortization	13,498	21,983	12,852

The following tables provide a reconciliation of OIBDA to operating income for the Group and for each of the Group's segments (and our former Telefónica United Kingdom segment) for the periods indicated.

2020

Millions of euros	Telefónica Spain	Telefónica United Kingdom	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Operating income	2,862	1,675	(85)	1,223	(1,284)	(109)	(143)	4,139
Depreciation and amortization	(2,184)	(389)	(2,394)	(1,965)	(2,274)	(468)	315	(9,359)
Operating income before depreciation and amortization	5,046	2,064	2,309	3,188	990	359	(458)	13,498

2021

Millions of euros	Telefónica Spain	Telefónica United Kingdom ⁽¹⁾	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Operating income	1,224	919	30	1,220	(155)	10,292	56	13,586
Depreciation and amortization	(2,153)	—	(2,394)	(1,918)	(1,873)	(356)	297	(8,397)
Operating income before depreciation and amortization	3,377	919	2,424	3,138	1,718	10,648	(241)	21,983

⁽¹⁾ Our former Telefónica United Kingdom segment was replaced by our new VMO2 segment on June 1, 2021. For additional information on this change and how segment information is presented in this Annual Report, see "Item 4. Information on the Company—History and Development of the Company—Business areas". In particular, in the 2021 table, the "Telefónica United Kingdom" column reflects the results of such segment from January 1, 2021 until its elimination on June 1, 2021.

2022

Millions of euros	Telefónica Spain	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Operating income	2,431	263	1,363	159	(124)	(36)	4,056
Depreciation and amortization	(2,157)	(2,295)	(2,369)	(1,799)	(218)	42	(8,796)
Operating income before depreciation and amortization	4,588	2,558	3,732	1,958	94	(78)	12,852

The OIBDA of 2021 includes the gains on the sale of the towers divisions of Telxius, amounting to 6,099 million euros and from the establishment of VMO2, amounting to 4,460 million euros (see Note 4 to the Consolidated Financial Statements).

OIBDA-CapEx and OIBDA-CapEx excluding spectrum acquisitions

OIBDA-CapEx is defined as operating income before depreciation and amortization, reduced by accrued capital expenditures, and OIBDA-CapEx excluding spectrum acquisitions is defined as operating income before depreciation and amortization, reduced by accrued capital expenditures excluding those related to spectrum acquisitions.

We believe that it is important to consider capital expenditures, and capital expenditures excluding spectrum acquisitions, together with OIBDA in order to have a more complete measure of the performance of our telecommunications businesses. For example, we believe that considering capital expenditures, and capital expenditures excluding spectrum acquisitions together with OIBDA provides useful information regarding both our performance during the year as well as the investments we made during such year in order to support our business going forward. As a result, we use these measures internally to track the performance of our business, to establish operating and strategic targets of the businesses of the Group and in our internal budgeting process.

In addition, we believe that these measures provide useful information to investors and other stakeholders to allow them to better compare performance across telecommunications companies with business models that differ based on whether they obtain network access, IT and other infrastructure services by paying fees that would be reflected in OIBDA versus through the development of owned networks and infrastructures that would be reflected in capital expenditures. Furthermore, similar metrics are reported externally by other telecommunications companies, and investors and analysts often track and compare these measures across different telecommunications companies.

Based on our use of OIBDA-CapEx and OIBDA-CapEx excluding spectrum acquisitions, we consider such measures to be primarily performance measures. While our primary liquidity measure is free cash flow, OIBDA-CapEx and OIBDA-CapEx excluding spectrum acquisitions also provide certain information regarding our liquidity given that they provide an indication of the resources generated by the operation of our business during the year, after deducting the investments we made during such year in order to support our business going forward.

Neither OIBDA-CapEx nor OIBDA-CapEx excluding spectrum acquisitions are measures expressly defined in IFRS, and therefore they may not be comparable to similar indicators used by other companies. In addition, neither OIBDA-CapEx nor OIBDA-CapEx excluding spectrum acquisitions should be considered substitutes for operating income, the most comparable financial measure calculated in accordance with IFRS, or any measure of liquidity calculated in accordance with IFRS.

The Group management also uses the measures OIBDA-CapEx margin and OIBDA-CapEx excluding spectrum acquisitions margin, which is the result of dividing these measures by revenues.

In the table below we provide a reconciliation of our OIBDA-CapEx and OIBDA-CapEx excluding spectrum acquisitions to operating income for the periods indicated.

Year ended December 31,

Millions of euros	2020	2021	2022
Operating income	4,139	13,586	4,056
Depreciation and amortization	(9,359)	(8,397)	(8,796)
OIBDA	13,498	21,983	12,852
Capital expenditures in intangible assets	(1,266)	(2,981)	(1,530)
Capital expenditures in property, plant and equipment	(4,595)	(4,286)	(4,289)
CapEx	(5,861)	(7,267)	(5,819)
OIBDA-CapEx	7,637	14,716	7,033
Spectrum acquisitions	126	1,704	173
OIBDA-CapEx excluding spectrum acquisitions	7,763	16,420	7,206

Net financial debt, net financial debt plus leases, net financial debt plus commitments and net financial debt plus leases plus commitments

As calculated by us, net financial debt includes:

(A) adding the following liabilities:

- i. Current and non-current financial liabilities in our consolidated statement of financial position (which includes the negative mark-to-market value of derivatives),
- ii. Other liabilities included in "Payables and other non-current liabilities" and "Payables and other current liabilities" (mainly corresponding to payables for deferred payment of radio spectrum that have an explicit financial component and supplier financing for customer financing of terminal sales), and
- iii. Financial liabilities included in "Liabilities associated with non-current assets and disposal groups held for sale".

(B) subtracting the following amounts from the resulting amount of the preceding step:

- i. "Cash and cash equivalents",
- ii. "Other current financial assets" (which include short-term derivatives),
- iii. Cash and other current financial assets included in "Non-current assets and disposal groups held for sale",
- iv. The positive mark-to-market value of derivatives with a maturity beyond one year,
- v. Other interest-bearing assets (included in "Financial assets and other non-current assets", "Receivables and other current assets" and "Tax receivables" in our consolidated statement of financial position),
- vi. Mark-to-market adjustment by cash flow hedging activities related to debt, and
- vii. Fair value of derivatives adjustment used for the economic hedging of gross commitments related to employee benefits.

In 2022, the classification of these derivatives within the Group's debt indicators has been revised, and these are now presented together with the "Net commitments related to employee benefits". This change in the presentation allows us to include in the same section the economic underlying and the derivative associated with the hedged risk. As a result, the effects on the underlying and the economic hedge are offset, avoiding distortions resulting from being registered under different headings, particularly at times of strong volatility, as has occurred in recent months compared to previous years. The totals of "Net financial debt plus commitments" and "Net financial debt plus leases plus commitments" are not affected by this presentation change. The new criteria has been applied retroactively, so the figures at December 31, 2021 have been restarted accordingly.

With respect to step (B)(v), "Financial assets and other non-current assets" includes derivatives, installments for the long-term sales of terminals to customers and other long-term financial assets, and "Receivables and other current assets" includes the customer financing of terminal sales classified as short-term. In 2022, other liabilities included in "Payables and other current liabilities" and other assets included in "Receivables and other current assets" of points (A)(ii) and (B)(v), respectively, have been reviewed, including non-material changes in the customer financing of terminal sales and the resulting changes have been applied retroactively to the net financial debt figures as of December 31, 2021.

We calculate net financial debt plus leases by adding lease liabilities calculated under IFRS 16 (including those corresponding to the companies held for sale) to net financial debt and deducting assets from subleases.

We calculate net financial debt plus commitments by adding gross commitments related to employee benefits and the fair value of the derivatives used for the economic hedging of such commitments to net financial debt, and deducting the value of long-term assets associated with those commitments related to employee benefits and the tax benefits arising from the future payments of those commitments related to employee benefits. Gross commitments related to employee benefits are current and non-current provisions recorded for certain employee benefits such as termination plans, post-employment defined benefit plans and other benefits.

We believe that net financial debt, net financial debt plus leases, net financial debt plus commitments and net financial debt plus leases plus commitments are meaningful for investors and analysts because they provide an analysis of our solvency using the same measures used by our management. We use them to calculate internally certain solvency and leverage ratios. Nevertheless, none of them as calculated by us should be considered as a substitute for gross financial debt as presented in the consolidated statement of financial position.

The following table presents a reconciliation of net financial debt, net financial debt plus leases, net financial debt plus commitments and net financial debt plus leases plus commitments as of December 31, 2022 and 2021 to the Telefónica Group's gross financial debt as indicated in the consolidated statement of financial position.

Millions of euros	12/31/2021	12/31/2022
Non-current financial liabilities	35,290	35,059
Current financial liabilities	7,005	4,020
Gross financial debt	42,295	39,079
Cash and cash equivalents	(8,580)	(7,245)
Other current financial assets	(3,823)	(2,431)
Cash and other current financial assets included in "Non-current assets and disposal groups held for sale" (see Note 30 to the Consolidated Financial Statements)	(7)	—
Positive mark-to-market value of long-term derivative instruments	(2,772)	(2,668)
Other liabilities included in "Payables and other non-current liabilities"	933	1,431
Other liabilities included in "Payables and other current liabilities"	635	402
Other assets included in "Financial assets and other non-current assets"	(1,808)	(1,892)
Other assets included in "Receivables and other current assets"	(659)	(646)
Other current assets included in "Tax receivables"	(250)	(123)
Financial liabilities included in "Liabilities associated with non-current assets and disposal groups held for sale" (see Note 30 to the Consolidated Financial Statements)	35	—
Mark-to-market adjustment by cash flow hedging activities related to debt	22	1,102
Fair value of derivatives adjustment used for the economic hedging of gross commitments related to employee benefits	65	(322)
Net financial debt	26,086	26,687
Lease liabilities	8,080	8,645
Net financial debt plus leases	34,166	35,332
Gross commitments related to employee benefits and associated economic hedging	6,272	5,291
Value of associated long-term assets	(94)	(104)
Tax benefits	(1,626)	(1,281)
Net commitments related to employee benefits	4,552	3,906
Net financial debt plus commitments	30,638	30,593
Net financial debt plus leases plus commitments (*)	38,718	39,238

(*) Includes assets and liabilities considered to be Net financial debt plus leases plus commitments related to employee benefits for companies classified as held for sale (see Note 30 to the Consolidated Financial Statements).

Free Cash Flow

The Group's free cash flow is calculated starting from "Net cash flow provided by operating activities" as indicated in the consolidated statement of cash flows; deducting (Payments on investments)/Proceeds from the sale of investments in property, plant and equipment and intangible assets, net, adding the cash received from government grants, deducting dividends paid to non-controlling interests and payments of financed spectrum without explicit interest. The cash used to pay for commitments related to employee benefits (included in the Net cash flow provided by operating activities) is added back since it represents the payments of principal of the debt incurred with those employees.

We believe that free cash flow is a meaningful measure for investors and analysts because it provides an analysis of the cash flow available to protect solvency levels and to remunerate the parent company's shareholders and other equity holders (which is why free cash flows do not consider payments to minority interests). The same measure is used internally by our management. Nevertheless, free cash flow as calculated by us should not be considered as a substitute for the various cash flows presented in the consolidated statements of cash flows.

The following table presents the reconciliation between the Telefónica Group's Net cash flow provided by operating activities as indicated in the consolidated statement of cash flows and the free cash flow for 2022, 2021 and 2020:

Millions of euros	2020	2021	2022
Net cash flow provided by operating activities	13,196	10,268	11,763
(Payments on investments)/Proceeds from the sale of investments in property, plant and equipment and intangible assets, net	(7,020)	(6,164)	(5,508)
Dividends paid to non-controlling interests	(471)	(410)	(438)
Payments for commitments related to employee benefits	963	844	853
Payments of financed spectrum without explicit interest	(87)	(108)	(108)
Free Cash Flow excluding lease principal payments	6,581	4,430	6,562
Lease principal payments	(1,787)	(1,782)	(1,996)
Free Cash Flow	4,794	2,648	4,566

Item 6. Directors, Senior Management and Employees

A. Directors and Senior Management

During 2022, our Board of Directors met 14 times. As of February 23, 2023, our Board of Directors had met twice during 2023. As of February 23, 2023, our directors, their respective positions on our Board and the year they were first appointed were as follows:

Name	Age	First Appointed	Current Term Ends
Chairman			
Mr. José María Álvarez-Pallete López (1)	59	2006	2025
Vice-Chairmen			
Mr. Isidro Fainé Casas (1)(2)	80	1994	2024
Mr. José María Abril Pérez (1)(3)(6)	70	2007	2026
Mr. José Javier Echenique Landiribar (1)(4)(7)	71	2016	2024
Members			
Mr. Ángel Vilá Boix (1)	58	2017	2026
Mr. Juan Ignacio Cirac Sasturain (5)(6)(8)	57	2016	2024
Mr. Peter Erskine (1)(6)(7)	71	2006	2024
Ms. Carmen García de Andrés (5)(4)(8)	60	2017	2025
Ms. María Luisa García Blanco (5)(7)(8)	57	2018	2026
Mr. Peter Löscher (1)(4)(7)	65	2016	2024
Ms. Verónica Pascual Boé (6)	44	2019	2024
Mr. Francisco Javier de Paz Mancho (1)(5)(7)(8)	64	2007	2026
Mr. Francisco José Riberas Mera	58	2017	2025
Ms. María Rotondo Urcola (4)(8)	58	2021	2026
Ms. Claudia Sender Ramírez (6)(8)	48	2019	2024

(1) Member of the Executive Commission of the Board of Directors.

(2) Name or company name of the shareholder represented or that has proposed their appointment: CaixaBank, S.A.

(3) Name or company name of the shareholder represented or that has proposed their appointment: Banco Bilbao Vizcaya Argentaria, S.A.

(4) Member of the Audit and Control Committee.

(5) Member of the Regulation and Institutional Affairs Committee.

(6) Member of the Strategy and Innovation Committee.

(7) Member of the Nominating, Compensation and Corporate Governance Committee.

(8) Member of the Sustainability and Quality Committee.

Board Committees

At February 23, 2023, the Committees of our Board of Directors and members thereof are as follows:

Executive Commission

Our Board of Directors has expressly delegated all of its authority and power to the Executive Commission except as prohibited by the Spanish Corporation Act, under our Articles of Association, or under our Board Regulations. This Commission is made up of fewer directors and meets more frequently than our Board of Directors. The members of the Executive Commission are Mr. José María Álvarez-Pallete López (Chairman), Mr. Isidro Fainé Casas, Mr. José María Abril Pérez, Mr. José Javier Echenique Landiribar, Mr. Ángel Vilá Boix, Mr. Peter Erskine, Mr. Francisco Javier de Paz Mancho, Mr. Peter Löscher and Mr. Pablo de Carvajal González, as Secretary. During 2022, the Executive Commission met 15 times and, as of the date of this Annual Report, had met three times in 2023.

Audit and Control Committee

The Audit and Control Committee functions are regulated by our bylaws, our Board Regulations and the Audit and Control Committee Regulations. The Audit and Control Committee has the primary objective of providing support to our Board of Directors in its supervisory and oversight functions, specifically having the following responsibilities:

- To report to the shareholders at the General Shareholders' Meeting regarding matters raised therein for which it is responsible.
- To submit to the Board of Directors proposals for the selection, appointment, re-election and replacement of the external auditor, as well as the terms and conditions of the contract therewith, and regularly obtain from such external auditor information regarding the audit plan and the implementation thereof, in addition to the preservation of its independence in the performance of its duties.
- To supervise the risk control and management unit, the effectiveness of the Company's internal control system, the internal audit and the systems for the management of financial and non-financial risks (including operational, technological, legal, tax, social, environmental, political, reputational and corruption-related risks), as well as to discuss with the external auditor the significant weaknesses in the internal control system detected during the audit.
- To supervise the process of preparation and submission of regulated financial information and to ensure that the annual accounts submitted by the Board of Directors to the shareholders at the General Shareholders' Meeting are prepared in accordance with the legal provisions on accounting.
- To establish and maintain appropriate relations with the external auditor in order to receive, for review by the Committee, information on all matters that could jeopardize the independence thereof, as well as any other matters related to the audit procedure, and such other communications as may be provided for in auditing legislation and in technical auditing regulations. In any event, the Audit and Control Committee must receive annually written confirmation from the external auditor of its independence vis-à-vis the entity or entities directly or indirectly related thereto, as well as information regarding additional services of any kind provided to such entities by the external auditor, or by the persons or entities related thereto, pursuant to the legislation in force.
- To issue on an annual basis, prior to the issuance of the audit report, a report stating an opinion regarding the independence of the external auditor. This report must in all cases include an opinion on the provision of the additional services referred to in the preceding paragraph.
- To supervise the application of the general policy on the disclosure of economic/financial, non-financial and corporate information and communication with shareholders and investors, proxy advisers and other stakeholders, and to monitor the manner in which the Company communicates and engages with small and medium-sized shareholders, all with respect to those aspects within the purview of the Committee.
- To report to the Board of Directors in advance on all matters contemplated by law, the bylaws and the Regulations of the Board of Directors.
- Any other powers granted to it under the Regulations of the Board of Directors.

The Audit and Control Committee meets at least once per quarter and as many times as considered necessary. During 2022, the Audit and Control Committee met 12 times and, as of the date of this Annual Report, had met twice in 2023. The members of the Audit and Control Committee are Mr. Peter Löscher (Chairman), Mr. José Javier Echenique Landiribar, Ms. Carmen García de Andrés and Ms. María Rotondo Urcola. Our Board of Directors has determined that all the members of the Audit and Control Committee meet the requirements of an "audit committee financial expert" as such term is defined by the SEC.

Nominating, Compensation and Corporate Governance Committee

The Nominating, Compensation and Corporate Governance Committee is responsible for, among other things, reporting to our Board of Directors with respect to proposals for the appointment, re-election and removal of directors, members of the Executive Commission and the other committees of our Board of Directors and top members of our management and management of our subsidiaries. In addition, the Nominating, Compensation and Corporate Governance Committee is responsible for proposing to the Board of Directors, within the framework

established in the bylaws, the compensation for the directors and reviewing it periodically to ensure that it is in keeping with the tasks performed by them, as provided in Article 36 of the Board Regulations, to propose to the Board of Directors, within the framework established in the bylaws, the extent and amount of the compensation, rights and remuneration of a financial nature, of the chairman, the executive directors and the senior executive officers of Telefónica, including the basic terms of their contracts, for purposes of contractual implementation thereof and to supervise compliance with the corporate governance rules in effect from time to time.

The members of the Nominating, Compensation and Corporate Governance Committee are Mr. José Javier Echenique Landiribar (Chairman), Mr. Peter Erskine, Mr. Peter Löscher, Ms. María Luisa García Blanco and Mr. Francisco Javier de Paz Mancho. During 2022, the Nominating, Compensation and Corporate Governance Committee met 12 times, and as of the date of this Annual Report, it had met twice in 2023.

Regulation and Institutional Affairs Committee

The Regulation and Institutional Affairs Committee was created in 2016 by merging the Regulation Committee and the Institutional Affairs Committee. The main objective of the Regulation and Institutional Affairs Committee is to monitor the main regulatory matters which affect us. Additionally, the Regulation and Institutional Affairs Committee acts as a communication and information channel between our management team and our Board of Directors concerning regulatory matters. Another responsibility is to review, report and propose to the Board of Directors the principles that are to govern the Group's Sponsorship and Patronage Policy, to monitor such policy, and to individually approve sponsorships or patronages the amount or importance of which exceed the limit set by the Board and which require its approval.

The members of the Regulation and Institutional Affairs Committee are Mr. Francisco Javier de Paz Mancho (Chairman), Ms. María Luisa García Blanco, Ms. Carmen García de Andrés and Mr. Juan Ignacio Cirac Sasturain. During 2022, the Regulation and Institutional Affairs Committee met 11 times, and as of the date of this Annual Report, the Committee had met twice in 2023.

Strategy and Innovation Committee

In 2016, the Strategy Committee and the Innovation Committee merged into a new Committee, the so-called Strategy and Innovation Committee. Without prejudice to any other tasks granted to it under article 26 of the Regulations of the Board of Directors, the primary duty of this Committee is to support the Board of Directors in the analysis and implementation of the global strategy policy of the Telefónica Group. The Strategy and Innovation Committee is also responsible for advising and assisting in all matters regarding innovation. Its main object is to examine, analyze and periodically monitor the Group's innovation projects, provide guidance and help ensure the implementation and development of innovation initiatives across the Group. The members of the Strategy and Innovation Committee are Mr. Peter Erskine (Chairman), Mr. José María Abril Pérez, Mr. Juan Ignacio Cirac Sasturain, Ms. Verónica Pascual Boé and Ms. Claudia Sender Ramírez. The Strategy and Innovation Committee met 9 times during 2022, and as of the date of this Annual Report, it had met twice in 2023.

Sustainability and Quality Committee

The Sustainability and Quality Committee is responsible for, among other things, reviewing the strategies and policies relating to Telefónica's "Responsible Business" policy and sustainability practices in the environmental and social areas, supervising the impact and risk analysis of its "Responsible Business" strategy and analyzing Telefónica Group's objectives, action plans and practices in the field of social and environmental responsibility. In addition, the Sustainability and Quality Committee seeks to ensure that the corporate culture is aligned with its purpose and values with transparency towards its stakeholders and, together with the Audit and Control Committee, knows of the process of reporting non-financial information in matters of social responsibility and sustainability.

The members of the Sustainability and Quality Committee are Ms. María Luisa García Blanco (Chairman), Mr. Juan Ignacio Cirac Sasturain, Ms. Carmen García de Andrés, Mr. Francisco Javier de Paz Mancho, Ms. María Rotondo Urcola and Ms. Claudia Sender Ramírez. During 2022 the Sustainability and Quality Committee met 10 times and, as of the date of this Annual Report, had met twice in 2023.

Biographies of Directors

Mr. José María Álvarez-Pallete López serves as the Chairman of our Board of Directors and Chief Executive Officer of the Company. He is currently Chairman of the Telefónica Foundation, trustee of the Profuturo Foundation and member of Board of Trustees of "la Caixa" Banking Foundation since February 2022. He is also member of the

Advisory Council of SEAT, S.A. since March 2019 and Chairman of the Board of GSMA since February 2022. He is also member of the Board of Directors of VMED O2 UK Ltd. He began his career at Arthur Young Auditors in 1987. In 1988, he joined Benito & Monjardín/Kidder, Peabody & Co. In 1995, he joined Compañía Valenciana de Cementos Portland, S.A. (CEMEX) as head of the Investor Relations and Analysis department. In 1996, he was promoted to Chief Financial Officer in Spain, and in 1998, to Chief Administration and Financial Officer of CEMEX Group in Indonesia, headquartered in Jakarta, and he was appointed member of the Board of CEMEX Asia, Ltd. In February 1999 he joined the Telefónica Group as General Manager of Finance for Telefónica Internacional, S.A. In September of the same year he was promoted to Chief Financial Officer of Telefónica. In July 2002, he was appointed Chairman and Chief Executive Officer of Telefónica Internacional, S.A.U.; in July 2006 General Manager of Telefónica Latin America, and in March 2009, Chairman of Telefónica Latin America. He has been the Chairman of Telefónica Europa since September 2011 and a member of Telefónica, S.A.'s Board of Directors since July 2006. Since September 2012 and until April 2016, Mr. Álvarez- Pallete served as Chief Operating Officer. Since April 2016 he is the Chairman of our Board of Directors and Chief Executive Officer of the Company. In 2001, he was awarded as 'CFO Europe Best Practices' at Mergers & Acquisitions 2000 by CFO Europe Magazine, and in 2003 as Member of Merit at the Iberian-American Forum of the Carlos III Foundation. In 2007 he was awarded with the Gold Master of the Executive Management Forum and in 2011, he received the Personality of the Year in Economics Award granted by the Spanish newspaper "El Economista". In 2013 the Spanish Telecommunication Engineers Association awarded him with the Excellence Award of that same year, for his contribution to the development of telecommunications. In 2014, Mr. José María Álvarez-Pallete received Medalla Sorolla by the Hispanic Society of America and he was named "Innovative Corporate Leader of the Year" by the Latin Trade magazine and the magazine FastCompany included him in its "100 Most Creative People in Business 2014". In 2016, he was named the "Best CEO" in Spain by Forbes Magazine and the Consejo Superior de Deportes granted him the entry in the Royal Order of Merit Sports in the category of Bronze Medal. In 2019 he was granted with the Cross of Military Merit with white distinction, he received the "Manager of the Year" award in the Large Corporations category granted by the Asociación Española de Directivos, and was chosen "Business Leader of the Year" by the Spain-US Chamber of Commerce. In 2020, he was awarded with the ECOFIN prize for "Financiero del Año" and the Spanish Marketing Association has named him "Lider Empresarial Impulso del Marketing". In 2021, he was appointed Honorary Ambassador of Leading Brands of Spain Forum. Mr. Álvarez-Pallete holds a degree in Economics from the Complutense University in Madrid, also studied Economics at the Université Libre i Belgique and holds an International Management Program (IMP) degree from the Pan-American Institute of Executive Business Administration (IPADE) and a Diplome of Advanced Studies (DEA) from the Department of Financial Economics and Accounting of the Complutense University of Madrid.

Mr. Isidro Fainé Casas serves as Vice-Chairman of our Board of Directors. For over 40 years, Mr. Fainé has worked in several financial institutions, including amongst others: Banco Atlántico, S.A., (1964), Banco de Asunción (Paraguay) (1969), Banca Riva y García, S.A. (1973), Banca Jover, S.A. (1974), and Banco Unión, S.A. (1978). In 1982, he joined "la Caixa" as Deputy Executive General Manager, subsequently taking on various positions of responsibility. In April 1991, he was appointed Deputy Executive Managing Director and in 1999 rose to General Manager of the bank, before becoming Chairman from June 2007 to June 2014. He was also a member of the Board of Directors of CaixaBank since 2000, presiding from 2011 until his resignation in 2016. Likewise, he was Chairman of Naturgy Energy Group, S.A. from September 2016 until February 2018. Furthermore, he served as Director of Suez, S.A. from 2014 to 2020. Mr. Fainé is currently Chairman and Member of the Executive Commission of the Board of Trustees of the Fundación Bancaria Caixa d'Estalvis i Pensions de Barcelona la "Caixa", Chairman of the Board and of the Executive Commission of Criteria Caixa, S.A.U. and of Caixa Capital Risc SGEIC, S.A., and Chairman of the Board of Directors of Inmo Criteria Caixa, S.A.U. He also serves as Special Advisor of the Bank of East Asia, and Chairman of the Spanish Confederation of Savings Banks (CECA) and of the World Savings Banks Institute (WSBI). Additionally, he is Deputy Chairman of the European Savings Banks Group (ESGB). He is currently the Chairman of the Spanish Confederation of Executives (CEDE) and of the Spanish Chapter of the Club of Rome. He is also Deputy-Chairman of the Royal Academy of Economic and Financial Sciences, Founder of the Financial Circle and a Trustee of the Museo Nacional del Prado Foundation and the Carlos Slim Foundation. He was also appointed Honorary Chairman of Naturgy Energy Group, S.A. in 2018 and was recognized with the Forbes 2018 Award for Philanthropy. Mr. Fainé holds a Doctorate degree in Economics from the Universidad de Barcelona, a Diploma in Senior Management from IESE Business School and an ISMP certificate in Business Administration from Harvard University. He is a member of the Royal Academy of Economics and Finance and of the European Royal Academy of Doctorate Holders.

Mr. José María Abril Pérez serves as Vice-Chairman of our Board of Directors. From 1975 to 1982 he served as Financial Manager of Sociedad Anónima de Alimentación (SAAL). Since then, and until he joined the Banco Bilbao Vizcaya Argentaria Group (BBVA), he was Financial Manager of Sancel-Scott Ibérica, S.A. In 1985 he joined Banco

Bilbao, S.A. as Managing Director of Investment Corporate Banking. From January to April 1993, he was appointed Executive Coordinator of Banco Español de Crédito, S.A. In 1998, he became General Manager of the Industrial Group of BBV. In 1999, he was appointed member of the Executive Committee of the BBV Group. He has also been a member of the Board of Directors of Repsol, S.A., Iberia, S.A., Corporación IBV, Ibermática, S.A., and Vice-Chairman of Bolsas y Mercados Españoles, S.A. In 2002 he became Managing Director of the Wholesale and Investment Banking Division and a member of the Executive Committee of Banco Bilbao Vizcaya Argentaria, S.A. He is currently member of the Board of Directors of Artech Lanteri Elkartea, S.A. He holds a degree in Economics from the University of Deusto (Bilbao, Spain) and he was professor of this University for nine years.

Mr. José Javier Echenique Landiribar serves as Vice-Chairman of our Board of Directors. Mr. Echenique has been a Board Member and General Director of Allianz-Ercos as well as a General Director of BBVA Group, where he was responsible for wholesale business like Global Investment Banking or Global Corporate Banking among others. He has also been Member of the Board of Directors of Banco Sabadell, S.A. (Vice-Chairman), Repsol, S.A., Banco Guipuzcoano, S.A. (Chairman), Grupo Empresarial ENCE, S.A., ACS Servicios, Comunicaciones y Energía, S.L., Sevillana de Electricidad, S.A., Hidroeléctrica del Cantábrico, Metrovacesa and Abertis Infraestructuras, S.A. Mr. Echenique is currently Member of the Board of Directors of Telefónica Audiovisual Digital, S.L.U., ACS Actividades de Construcción y Servicios, S.A., Dragados, S.L. and Calcinor, S.L. He is also member of the Advisory Board of Telefónica España. He is also Trustee of the Novia Salcedo Foundation, a Board member of the Deusto Business School and a member of the McKinsey Advisory Council. He holds degrees in Economics and Actuarial Sciences from Basque Country University (UPV), where he was a professor of Social Security's Quantitative Techniques of the Economic Sciences School of Bilbao for several years.

Mr. Ángel Vilá Boix serves as the Chief Operating Officer (COO) and as a Director of our Board of Directors. Previously, he served as the Chief Strategy and Finance Officer. Mr. Vilá joined Telefónica in 1997. He held positions of Group Controller, CFO of Telefónica Internacional, S.A.U. Group Head of Corporate Development and Chief Financial and Corporate Development Officer. In 2015, he was appointed Chief Strategy and Finance Officer. Prior to joining Telefónica, he held positions at Citigroup, McKinsey&Co, Ferrovial and Planeta. In the financial sector, he has served in the Board of directors of Banco Bilbao Vizcaya Argentaria (BBVA) and on the Advisory Panel of Macquarie MEIF Infrastructure funds. In the TMT sector, he was Chairman of Telefónica Contenidos, Vice-Chairman of Telco Spa (Italy) and Board member of Endemol, Digital+, Atento, Telefónica Czech, CTC Chile, Indra SSI and Terra Lycos. Institutional Investor nominated Ángel Vilá as the Best CFO in European Telecoms in 2015. He was also honored with the Thomson Reuters Extel Pan-European Awards as No.1 CFO in Spain both in 2013 and 2014, as well as No.1 CFO for Telecommunications in Europe in 2014. He currently is member of the Advisory Boards of Telefónica España and Telefónica Tech, and a Trustee of the Telefónica Foundation. He is also member of the Board of Directors of VMED O2 UK Ltd. Mr. Ángel Vilá holds an MBA from Columbia Business School where he studied with a Fulbright La Caixa fellowship. Prior to Columbia University, he graduated in Industrial Engineering from Universitat Politècnica de Catalunya in Barcelona.

Mr. Juan Ignacio Cirac Sasturain serves as a Director of our Board of Directors. Mr. Cirac began his career as full professor at the Applied Physics Department of Castilla La Mancha University. In 1996, he tutored at Institut für Theoretische Physik of Leopold Franzens Universität Innsbruck, until 2001. In 2001, Mr. Cirac became Director of the Theory Division of Max-Planck Institut für Quantenoptik, a member of the Max Planck Society. Since 2002, he held the title of Honorarprofessor at Technical University of Munich. He has also served on advisory boards and scientific committees of several international research centers in the United States (Harvard, MIT), Asia (Kyoto, Tsinghua, Singapore) and Europe (Switzerland, Russia), as well as the BBVA Foundation, among other activities. He has also been a member of the Editorial Board of several national and international Physics journals and is the founder and editor of the journal *Quantum Information and Computation*. Since 2021, he is member of the Advisory Board of Telefónica Tech. He is also member of the Security Advisory Board of Telefónica Ingeniería de Seguridad and member of the Scientific Committee of La Caixa Foundation. Since 2019, he is Co-Director of the Munich Quantum Science and Technology Center. Since 2016, Mr. Cirac is a Director of International Max-Planck Research School Quantum Science and Technology. He has received several awards, such as the Hamburg Prize for Theoretical Physics, the Medal of Honor of Fundación García Cabrerizo or the Wolf Prize in Physics. He holds a degree in Theoretical Physics from Universidad Complutense de Madrid as well as a Ph.D. in Physics from this university. He is specialized in Theoretical Quantum Optics, Quantum Computing and Quantum Communication.

Mr. Peter Erskine serves as a Director of our Board of Directors. He began his career in the field of marketing in Polycell and in Colgate Palmolive. He worked for several years at the Mars Group, serving as Vice-Chairman for Europe of Mars Electronics. In 1990, he was appointed Vice-Chairman of Marketing and Sales of Unitel. From 1993 to 1998, he held a number of senior positions in BT, including Director of BT Mobile and President and Chief Executive Officer of Concert. In 1998, he was appointed Managing Director of BT Cellnet. Subsequently, in 2001, he

was appointed Chief Executive Officer and a Director of the Board of Directors of O2 Plc (now Telefónica Europe, Plc). In 2006, he became Executive Chairman of Telefónica Europe, Plc (until December 31, 2007, after which he became a Non-Executive Director). In January 2009, he joined the Board of Ladbrokes Plc. as a Non-Executive Director until December 2015, becoming Chairman in May 2009. He stood down from the Board in December 2015, having taken a lead role in the merger of Ladbrokes Plc with Gala Coral Group. He was a member of the Supervisory Board of Telefónica Deutschland Holding AG since 2016 until December 31, 2021, and member of the Board of Directors of VMED O2 UK Ltd since June 2021. He also chairs the charity Brainstorm which is focused on funding research into brain tumors. Mr. Erskine holds a degree in Psychology from Liverpool University and an Honorary Doctorate from the University of Reading.

Ms. Carmen García de Andrés serves as a Director of our Board of Directors. Ms. García joined PricewaterhouseCoopers (Coopers & Lybrand Legacy) in 1985, where she held several positions. Thereafter, she held various leadership positions at Landwell -Abogados y Asesores Fiscales as well as at PwC. She has been representative of the Spanish brand at the International Specialist Group in Indirect Taxation for more than six years. Between 2004 and 2007, she was the Managing Partner of the Gran Consumo, Distribución, Industria y Servicios Group of Madrid with more than 30 experts in legal and taxation areas, and responsible for the Diversity Program, Women in PwC between 2005 and 2007. She has been member of the Trust of the Young Business Spain Foundation and Board member of the collective initiative Juntos por el empleo de los más desfavorecidos. She has been member since 2006 of the Trust of Tomillo Foundation, and in March 2008 became the Managing Director of this non-profit institution and its Executive Chairwoman in 2014. She is Treasurer of the Asociación Española de Fundaciones (AEF), member of the Trust of Secretariado Gitano, Somos F5 and Xavier de Salas Foundations and co-founder and member of the Trust of "Aprendiendo a ser" Foundation since December 2018. She holds a degree in Economic and Business Sciences from the Comillas Pontifical University, ICADE.

Ms. María Luisa García Blanco serves as a Director of our Board of Directors. Ms. García began her career in 1992 as a state attorney (abogado del estado). In 2002, she was appointed Deputy Director-General of Constitutional Law and Human Rights and state attorney-Head of the Constitutional Law and Human Rights Department as well as Agent of the Kingdom of Spain before the European Court of Human Rights. As Agent of the Kingdom of Spain she managed and coordinated the Spanish delegation composed of representatives from various Spanish Ministries and represented the Kingdom of Spain before various UN Committees in nonjudicial proceedings and individual claims and before the European Court of Human Rights (TEDH) in individual claims. As state attorney serving at the Constitutional Court, she has been involved in constitutional law proceedings such as claims for unconstitutionality and jurisdictional conflicts, appeals for protection of constitutional rights and other issues of unconstitutionality. Among other activities, she has been the Secretary of the Board of Directors of Sociedad Estatal de Infraestructuras Agrarias del Norte (SEIASA DEL NORTE) and, from 1999 to 2010, of its Audit and Control Committee. From 2010 to 2013, she served as a Director of Sociedad Estatal de Infraestructuras Agrarias (SEIASA). She served as a Director of Sociedad Estatal de Aguas de la Cuenca del Norte (ACUANORTE) between 2010 and 2013, and of Sociedad Estatal de Aguas de las Cuencas de España (AcuaEs) between 2012 and 2013. Furthermore, she has been involved in coordination and cooperation activities for the promotion and defense of human rights in Uruguay (2006), Colombia (2007 and 2008), Chile (2009) and Guatemala (2010). Additionally, in 2006 she was awarded with the Cross of Honor of the Order of St. Raymond of Penyafort. In October 2013 she left her position as state attorney and she is currently a partner at the law firm Salama García Blanco, SLP, which focuses on administrative, constitutional law, civil and commercial litigation, and arbitration matters, and provides legal advice to credit institutions. In 2014, she was appointed as Corresponding Member of the Royal Academy of Jurisprudence and Legislation. Since 2021, she is member of the Advisory Board of Telefónica España. She is currently Director of Ibercaja Banco, S.A., member of the CIMA Governance and Control Committee and President of the Committee of Experts of 65YMAS.COM. She holds a law degree from the University of Cordoba (Spain).

Mr. Peter Löscher serves as a Director of our Board of Directors. Mr. Löscher was the President of Global Human Health and a member of the Executive Board of Merck & Co., CEO of GE Healthcare Bio – Sciences and a member of GE's Corporate Executive Council. He was also COO and a member of the Board of Amersham Plc. He held a senior leadership position in Aventis and Hoeschst. Mr. Löscher is former Chairman of the Supervisory Board of OMV AG, Austria. From 2014 to 2016, he was the CEO of Renova Management AG. In the past, he was also a member of the Supervisory Board of Deutsche Bank AG and Chairman and CEO of Siemens AG, among others, and until April 2022 Chairman of the Board of Directors of Sulzer AG. Since April 2020, he is Chairman of the Supervisory Board of Telefónica Deutschland Holding AG, member of the Supervisory Board of Philips, member of the Board of Thyssen-Bornemisza Group AG, Switzerland, and a non-executive member of the Board of Directors of Doha Venture Capital LLC, Qatar. He is also Honorary Professor at Tongji University Shanghai and he holds the Grand Decoration of Honor in Gold of the Republic of Austria, the Order of Friendship of the Russian Federation

and is a Knight Commander of the Order of Civil Merit of Spain. Mr. Löscher studied Economics at Vienna University of Economics, where he also received his MBA, and Business at the Chinese University of Hong Kong. He completed the Advanced Management Program (AMP) at Harvard Business School and an Honorary Doctorate of Engineering from Michigan State University and is a Doctor Honoris Causa of Slovak University of Engineering in Bratislava.

Ms. Verónica Pascual Boé serves as a Director of our Board of Directors. Ms. Pascual began her professional career at the international level in the strategic management department of Human Resources of the multinational industrial group Bouygues. In 2004, she joined the family firm ASTI, where she held different positions in the management of this company (technical management and sales management departments). At the end of 2006, she was appointed General Manager and in 2008 she decided to acquire the company. She has previously held various positions, including: Promoter and Founder of Burgos Digital Innovation Hub, through ASTI of DIHBU (2018); President of the Industry Working Group 4.0 of the Castile and Leon Government (2016-2018); President of the Industry Committee 4.0 and Vice President of Talent Development of AMETIC (2016-2018); Member of the Advisory Council of the Quality Agency of the University System (2015-2016); Member of the Advisory Council of EAE Business School (2015-2016); Member of the Governing Council of APD Castile and Leon (2014-2015); Member of the Board of Directors of Empresa Familiar Castile and Leon (2001-2013). Ms. Pascual is an entrepreneur who has led during 18 years a group of companies involved in digital transformation headed by ASTI Mobile Robotics Group, a company with affiliates in Spain, France, Germany, and the United States, engaged in the supply of autonomous vehicle systems for the automation of industrial processes in sectors such as the automotive, food, cosmetics, pharmaceuticals, and retail. Ms Pascual also Chairs the ASTI Tecnología y Talento Foundation and is also a Director of the company General Alquiler de Maquinaria, S.A. (GAM). Since August 2021, ASTI Mobile Robotics has been integrated into ABB Robotics and Ms. Pascual has moved to the position of Global Manager of Robótica Móvil Autónoma until January 2023. She currently leads her family office, ALBP Corp, one of whose main objectives is the investment in technology-based projects. In addition, she is member of the Advisory Board of Telefónica Tech. Ms. Pascual has a degree in Aeronautical Engineering from the Polytechnic University of Madrid, a Master in Business Administration (MBA) from the College des Ingenieurs de Paris and an Executive Master in Positive Leadership and Strategy (EXMPLS) from IE Business School. She also has several postgraduate qualifications from INSEAD, Stanford, and Harvard Business School.

Mr. Francisco Javier De Paz Mancho serves as a Director of our Board of Directors. From 1984 to 1993 he was the General Secretary of Juventudes Socialistas and a member of the PSOE Executive. From 1990 to 1993, he was general secretary of the Spanish Consumers Association (Unión de Consumidores de España, UCE). From 1993 to 1996, he served as General Manager of Internal Trade of the Spanish Ministry of Tourism and Commerce and Director of Tabacalera, S.A. From 1994 to 1996, he was Chairman of the Observatory of Trading of the Spanish Ministry of Tourism and Commerce (Observatorio de la Distribución Comercial del Ministerio de Comercio y Turismo); from 1996 to 2004, he was Corporate Strategy Manager of the Panrico Donuts Group and Deputy Chairman. From 1998 to 2004, he served as Director of Mutua de Accidentes de Zaragoza (MAZ). From 2004 to 2006, he was Director of Tunel de Cadí, S.A.C. and from 2003 to 2004, he served as Chairman of the Patronal Pan y Bollería Marca (COE). From 2004 to 2007, he was Chairman of the National Company MERCASA. He has also been a member of the Board of Directors of the Economic and Social Board and its Permanent Commission. From July 2006 to November 2014, he was a member of the Executive Committee of the Chambers Board (Consejo Superior de Cámaras) and from 2008 to 2012 he was the Chairman of Atento Inversiones y Teleservicios, S.A.U. From July 2016 to December 2021 he was the Chairman of Telefónica Ingeniería de Seguridad, S.A.U. From April 2018 to April 2021 he was Director of Telefónica Móviles de Argentina, S.A. From July 2020 to May 2021 he was Director of Pegaso PCS, S.A. de C.V. (Mexico). From September 2016 to July 2020, he was Director of Telefónica Móviles México, S.A. Currently, he is Director of Telefónica Brasil, S.A. and of Telefónica Audiovisual Digital, S.L.U. and member of the Advisory Boards of Telefónica de España and Telefónica Hispanoamérica. Mr. de Paz has a diploma in Publicity and Information and undertook studies in Law. He completed a Programa de Alta Dirección de Empresas from the IESE Business School (Instituto de Estudios Superiores de la Empresa, University of Navarra).

Mr. Francisco José Riberas Mera serves as a Director of our Board of Directors. He started his professional career at the Gonvarri Group, where he became Director of Corporate Development and Chief Executive Officer. Mr. Riberas has been the Chief Executive Officer of Gestamp Automoción since its incorporation. He has been member of the Board of Directors of General de Alquiler de Maquinaria, S.A. (GAM) and Chairman of Endeavor Foundation in Spain. Currently, Mr. Riberas is the Executive Chairman of Gestamp Automoción. He also serves as a member of the management team of certain companies of the Gestamp Group and the ACEK Group, including companies belonging to the Groups Gonvarri, Acek Renewables Energy and Inmobiliaria Acek. He also serves as a member of the Board of Directors of CIE Automotive and Wallbox, N.V. Furthermore, he is Chairman of SERNAUTO

(Asociación Española de Proveedores de Automoción) and Foundation Consejo España-China. Mr. Riberas holds a Degree in Law (1987) and in Economics and Business Administration (1988) from Comillas Pontifical University (ICADE E-3).

Ms. María Rotondo Urcola serves as a Director of our Board of Directors. From 1989 to 2006 she was an Investment Analyst specializing in various sectors, particularly in the telecommunications sector, Macroeconomist, and Head of Equity Research Europe, at Santander Investment Sociedad de Valores y Bolsa. From 2006 to 2016, she was Global Head of the Telecommunications, Media and Technology at Santander Global Banking and Markets. From 2017 to 2020 she was an independent Director of Indra. She has also served on the Advisory Board of Instituto de Empresa (IE) "Transformation with Purpose", and of Hotelab. She is currently an independent Director of CACEIS Bank Spain, SANTANDER CACEIS LATAM HOLDO (since 2019) and Libertas 7 (since 2021). She also participates in the Advisory Board of Top Boards-Headspring (Financial Times - Instituto de Empresa) (since 2017). Ms. Rotondo teaches Capital Markets at the Instituto de Consejeros y Administradores (ICA), and Special Operations Communication in the Master Investor Relations at Bolsas y Mercados (BME). She is also Co-Director and professor in the Sustainability Programme at the Instituto de Empresa (IE) SYCA, where she teaches classes on corporate governance and sustainability. She has also been an internal trainer at Banco Santander, as well as a speaker at various forums and collaborates with several publications (Fide Monedas digitales in 2020, Gaptel, Telos, El Economista, others). Among the awards received, the most noteworthy are the following: Finalist 2016 TMT Finance EMEA, Best Corporate Finance Deal (OPA Orange-Jazztel); 1999-2002 Reuters-Institutional Investor, 1 and 3 Ranked European Telecom Analyst; 2001 Footsie- Actualidad Económica, 1 Ranked analyst all sectors in Spain 2001; 2000 Institutional Investors, First Equity Research team in Spain by Institutional Investors; and 1997 Vallehermoso Award, 1 Real Estate Analyst (Ladrillo de Oro 1997). Ms. Rotondo has a degree in Economics and Business Administration from the Complutense University of Madrid. She has received complementary training at various Institutions such as ESG Academy/Foretica, IESE, IC-A, EEC, IMD, NYU, Harvard, Boston College, among others.

Ms. Claudia Sender Ramírez serves as a Director of our Board of Directors. She has held various positions in, among others, the following companies: (i) Director of Yduqs University (formerly known as Estácio) (2019-2021) (ii) Latam Airlines Group where she served as Vice President, Chief Customer Officer (2017-2019), CEO of LATAM Brazil (2013-2017), Vice President of LATAM Brazil (2011-2013); (iii) Whirlpool, S.A. where she served as Vice President of Marketing (2009-2011), Divisional Director of Marketing (2007-2009), and Director of Strategic Planning (2005-2007); and (iv) Bain & Company Brazil where she served as a consultant specialising in Strategy (1998-2005). Currently, Ms. Sender is a Director of LafargeHolcim Ltd (since 2019); Director of Gerda, S.A. (since 2019); Director of Amigos do Bem (since 2017), a Brazilian NGO dedicated to the eradication of poverty in the Northwest of Brazil; Director of Embraer, Empresa Brasileira de Aeronáutica, S.A. (since 2021); and Director of Metalúrgica Gerda, S.A. (since 2021). In addition, she is member of the Advisory Board of Telefónica Tech and Telefónica Hispanoamérica. Ms. Sender has a degree in Chemical Engineering from the Polytechnic School of the University of São Paulo, and an MBA from Harvard Business School in Boston.

Terms and Conditions of Executive Directors' Contracts

The contracts signed with the Executive Directors are for an indefinite term and include a non-competition clause. This clause implies that, once the relevant contract has been terminated and during the valid term of the clause (two years after the termination of the contract for any reason), the Executive Directors may not indirectly or directly render their services themselves or through others, either on their own behalf or through third parties, to Spanish or foreign companies that engage in the same or similar business activities as the Telefónica.

Regarding the conditions related to the termination of the contracts, the Executive Chairman, Mr. José María Álvarez-Pallete López, and the Chief Operating Officer ("Consejero Delegado"), Mr. Ángel Vilá Boix, have the same terms and conditions as in their previous contracts, which specify agreed severance pay for termination of the relationship, when appropriate, which may amount to a maximum of four annual payments. Each annual payment consists of the last fixed remuneration and the arithmetic mean of the sum of the last two amounts of the annual variable remuneration paid pursuant to the contracts.

The contracts that currently regulate the performance of the Executive Directors' duties and responsibilities are of a commercial nature and include clauses that are included in these kinds of contracts in normal practice. These contracts have been proposed by the Nominating, Compensation and Corporate Governance Committee and approved by the Board of Directors.

In addition to the prior notice and severance pay conditions explained in the previous point, a summary is provided

below of the main terms and conditions of the Executive Directors' contracts:

Executive Chairman and Chief Operating Officer	
Term	Indefinite
Prior notice	There is an obligation to provide prior notice in the event of the contract being terminated due to a unilateral decision adopted by the Executive Director, being stipulated that he must notify the unilateral decision in writing with at least three months' prior notice, except in cases of force majeure. If this obligation is not fulfilled, he must pay the company an amount equivalent to the Fixed Remuneration for the period of prior notice not observed.
Exclusivity	The contracts prohibit during the term thereof the signing (whether directly or through intermediaries) of any employment, commercial or civil contracts with other companies or institutions that engage in activities similar in nature to those of Telefónica.
Non-competition clause	The contract states the relationship is compatible with holding representative, administrative and management posts and other professional positions in other companies in the Telefónica Group or in any other undertakings unrelated to the company when expressly notified to the Nominating, Compensation and Corporate Governance Committee and the Board of Directors. In addition, it states that the relationship is incompatible, during the term of the clause (two years after the termination of the contract for any reason) with directly or indirectly rendering services, on an employed or self-employed basis, by themselves or through third parties, to any Spanish or foreign companies that engage in activities identical or similar to those of Telefónica.
Confidentiality	While the relationship remains in force and also after the termination thereof, there is a duty of confidentiality regarding any information, data and any kinds of reserved and confidential documents they have knowledge of or to which they have had access as a result of holding their positions.
Compliance with the regulatory system	The contracts include the obligation to abide by the rules and obligations set out within Telefónica's regulatory system, which are contained, among other regulations, in the Board of Directors Regulations and Telefónica's Internal Stock Market Conduct Regulations.

Executive Officers/Management Team

At February 23, 2023, our executive management team consisted of the following individuals:

Name	Position	Appointed	Age
Mr. José María Álvarez-Pallete López	Chairman of the Board of Directors and Chief Executive Officer	2016	59
Mr. Ángel Vilá Boix	Chief Operating Officer	2017	58
Mr. Pablo de Carvajal González	General Secretary, Secretary of the Board of Directors and Director Global of Regulation	2018	59
Ms. Laura Abasolo García de Baquedano	Chief Finance and Control Officer	2017	50
Mr. Eduardo Navarro de Carvalho	Chief Corporate Affairs and Sustainability Officer	2019	60
Mr. Mark Evans	Chief Strategy and Development Officer	2021	53
Mr. Juan Francisco Gallego Arrechea	General Manager of Internal Audit	2016	56

Biographies of the Executive Officers and Senior Management

We present below the biographies of our executive officers and senior management who do not also serve on our Board of Directors.

Mr. Pablo de Carvajal González serves as the General Secretary, Secretary of the Board of Directors of Telefónica and Director Global of Regulation. He is also a member of the Executive Committee of Telefónica. From 1988 to 1989, he worked as legal counsel for La Unión y el Fénix Español, Compañía de Seguros y Reaseguros, S.A. In April 1991, he was appointed state attorney (*abogado del Estado*) until December 1999, when he became legal counsel of Jazz Telecom, S.A. In March 2000, he became secretary of the Board and head of the legal department of Yacom Internet Factory, S.A. Since June 1, 2001, he has been the General Secretary and Secretary of the Board of Directors of Telefónica de España, S.A. and, since April 2013, also Director of Regulation. He holds a law degree the Universidad Complutense de Madrid and a Master's degree in European law from the Free University of Brussels.

Ms. Laura Abasolo García de Baquedano is the Chief Finance and Control Officer of Telefónica, S.A. In addition, she is Head of Telefónica Hispam, Director of VMED O2 UK Ltd. and Member of the Advisory Board of Hispam and Telefónica España. She started her professional career at Goldman Sachs International, in the area of Investment Banking in Europe. She joined Telefónica in 1999 as the Management Control Officer at Terra Networks, S.A., where she was also a member of the Executive Committee. In July 2005, she assumed the role of Management Control Officer at Telefónica, S.A. and in December 2007, she became Planning, Budgets and Management Control Officer. In March 2014, she joined the Executive Committee of Telefónica, S.A. and also assumed the responsibility for the Simplification Office. In 2016, she became responsible for the Consolidation and Accounting Policies, and Tax divisions of the company. In July 2017, she is appointed Chief Finance and Control Officer of Telefónica, S.A. In February 2020, she was appointed Chief of the Procurement and Supply Chain division and the Corporate Development division, holding this last position until September 2021. She holds a Degree in Economics and Business Administration from Deusto Business School and an MBA in International Businesses by the Norwegian School of Economics and Business Administration.

Mr. Eduardo Navarro de Carvalho is the Chief Corporate Affairs and Sustainability Officer Telefónica, S.A. He began his career as an engineer in the Brazilian operation of ARBED, a steel and iron producer. Before joining the Telefónica Group, he was a consultant at McKinsey & Co., where he led Telecommunications and Infrastructure projects in Latin America, Europe and Africa. Eduardo joined Telefónica in 1999, as Vice-President of Corporate Strategy and Regulatory Affairs for Telefónica Brazil. Before assuming his current position, Eduardo was President and CEO of Telefônica Brasil | Vivo; before that Eduardo held key global positions in the Telefónica Group, including Chief Commercial Digital Officer (CCDO) and Director of Strategy and Business Development. He was also Director of Strategic Planning and Regulatory Affairs for Telefónica Internacional. Eduardo holds a Metallurgical Engineering degree from the Federal University of Minas Gerais, Brazil.

Mr. Mark Evans is the Chief Strategy and Development Officer of Telefónica, S.A. He joined the Executive Committee of Telefónica on August 1, 2016, holding the role of Chief Executive Officer of Telefonica UK (O2) through to June 1, 2021. A time at which the business grew to become the UK's largest mobile provider whilst delivering five years of consecutive profit growth and market leading customer satisfaction. Previously he was Chief Financial Officer for Telefonica UK, a position he held since January 2012. Prior to joining Telefónica, he held a number of senior positions within the Vodafone Group including Global Technology CFO, UK CFO and Ireland CFO and prior to joining Vodafone he held the role of Group Financial Controller for ntl. Mark was Chairman of Tesco Mobile, the largest Mobile Virtual Network Operator in the UK, a joint venture of Tesco Plc and Telefónica. He gained a Chartered Management Accounting qualification (ACMA) and was educated at Southampton Solent University.

Mr. Juan Francisco Gallego Arrechea is the General Manager of Internal Audit of the Telefónica Group since 2016. He began his career in Arthur Andersen, where he specialized in audit and financial consulting for business groups. In June 2000, he joined the Telefónica Group working as Director of Consolidation and Accounting Policies and serving, from 2009, as Chief Accounting Officer. Mr. Gallego is a speaker and a member of work teams in several master programs, conferences and courses on the matter of audit, consolidation and accounting practices held by regulators, private institutions and universities. He is currently Director and Chairman of the Audit Committee of the Institute of Internal Auditors of Spain. He obtained a degree in Economic Science at Universidad Complutense in Madrid.

B. Compensation

Please see Note 29.g and Appendix II to our Consolidated Financial Statements for information on the compensation paid to members of our Board of Directors and Executive Officers/Senior Management Team during the year 2022.

Incentive Plans

Please see Note 27 to our Consolidated Financial Statements.

C. Board Practices

Please see “—Directors and Senior Management” above.

D. Employees

Please see “Headcount” in Note 26 to our Consolidated Financial Statements.

On December 28, 2021, Telefónica Spain signed a Social Pact for Employment supported by the largest trade unions. Said Pact includes the Company’s differential commitments and is based on the following six lines of work:

- (1) equality and diversity;
- (2) new ways of working, flexibility and productivity;
- (3) incorporation and retention of talent;
- (4) reskilling and professional development;
- (5) functional and geographical mobility; and
- (6) a plan for the voluntary individual suspension of the employment relationship (the Individual Suspension Plan).

The present value of the estimated payment flows resulting from the Plan resulted in expenses amounting to 1,382 million euros before taxes in 2021, reflected in "Personnel expenses" (see Note 2 to the Consolidated Financial Statements).

E. Share Ownership

At February 23, 2023, the following members of our Board of Directors beneficially owned directly or indirectly an aggregate of 17,066,508 shares, representing approximately 0.296% of our capital stock.

Name or corporate name of director	Number of direct voting rights	Number of indirect voting rights	% of total voting rights
Mr. José María Álvarez-Pallete López	2,168,658	—	0.038
Mr. Isidro Fainé Casas	734,460	—	0.013
Mr. José María Abril Pérez	374,529	466,378	0.015
Mr. José Javier Echenique Landiribar	237,125	62,758	0.005
Mr. Ángel Vilá Boix	624,332	—	0.011
Mr. Juan Ignacio Cirac Sasturain	—	—	—
Mr. Peter Erskine	46,189	—	0.001
Ms. Carmen García de Andrés	869	—	—
Ms. María Luisa García Blanco	—	37,127	0.001
Mr. Peter Löscher	179,453	—	0.003
Ms. Verónica Pascual Boé	—	—	—
Mr. Francisco Javier de Paz Mancho	80,270	—	0.001
Mr. Francisco José Riberas Mera	—	12,014,980	0.208
Ms. María Rotondo Urcola	39,380	—	0.001
Ms. Claudia Sender Ramírez	—	—	—

At February 23, 2023, members of our executive management team (excluding members of our Board of Directors listed above) beneficially owned an aggregate of 914,696 of our shares, representing approximately 0.016% of our capital stock.

None of our directors or executive officers beneficially owned shares representing one percent or more of our share capital at February 23, 2023.

None of our directors and executive officers held options in respect of shares representing one percent or more of our share capital at February 23, 2023.

Please see Note 27 to our Consolidated Financial Statements for information on our share-based payment plans.

Item 7. Major Shareholders and Related Party Transactions

A. Major Shareholders

General

At February 23, 2023, we had 5,775,237,554 shares outstanding, each having a nominal value of 1.00 euro per share. All outstanding shares have the same rights.

At February 23, 2023, according to information provided to us or to the Spanish National Securities Commission (*Comisión Nacional de Mercado de Valores* or the “**CNMV**”), beneficial owners of 3% or more of our voting stock were as follows:

Name of Beneficial Owner	% of voting rights attributed to shares		% of voting rights through financial instruments		% of total voting rights
	Direct	Indirect	Direct	Indirect	
Banco Bilbao Vizcaya Argentaria, S.A.(1)	4.85	0.02	0.00	0.00	4.87
CaixaBank, S.A.(2)	3.50	0.00	0.00	0.00	3.50
BlackRock, Inc.(3)	0.00	4.32	0.00	0.16	4.48

(1) Based on the information provided by Banco Bilbao Vizcaya Argentaria, S.A. (BBVA) for our 2022 Annual Report on Corporate Governance. According to the aforementioned information provided by BBVA, the percentage of economic rights attributed to Telefónica, S.A. shares owned by BBVA amounts to 4.97% of the Company's share capital.

(2) Based on the information provided by CaixaBank, S.A. for our 2022 Annual Report on Corporate Governance.

- (3) Based on the information notified by BlackRock, Inc. to the CNMV on March 31, 2020 as updated per the share capital of Telefónica, S.A. as of December 31, 2022. Based on the Schedule 13G/A filed with the SEC on October 7, 2022, BlackRock, Inc. beneficially owned 4.96% of Telefónica, S.A. shares (4.49% of voting rights).

To the extent that our shares are represented by account in the book-entry form, we do not keep a shareholder registry and our ownership structure cannot be known precisely. Based on the information available to us there is no individual or corporation that directly or indirectly through one or more intermediaries may exercise any type of control over us. Nevertheless, we have certain shareholders whose holdings are considered material.

Ownership Limitations

There are no limitations with respect to the ownership of our assets or share capital except those related to assets derived from the application of the reciprocity principle. Article 6 of the General Telecommunications Law, or the GTL, provides for the application of the reciprocity principle under existing international treaties or agreements signed and ratified by Spain. The Spanish government, upon request, may authorize exceptions to the reciprocity principle contained in the GTL.

B. Related Party Transactions

During 2020, 2021 and 2022 through the date of this Annual Report, the Directors and senior executives did not enter into any transaction with Telefónica, S.A. or any Telefónica Group company other than those in the Group's normal trading activity and business, except for the transactions with parties related to Directors during fiscal year 2022 disclosed in Note 11 to the Consolidated Financial Statements.

Our Board of Directors' Regulations grant the Board of Directors the exclusive power to authorize any transactions with major shareholders or with our directors. Prior to authorizing any such transaction, our Board will receive an opinion from the Audit and Control Committee addressing the fairness of the transaction to our shareholders and us. Any of our directors that may have an interest in the proposed transaction must abstain from voting on the proposed transaction.

Please see Note 11 to our Consolidated Financial Statements for further information.

Related Party Transactions with Significant Shareholders

Two of our major shareholders are financial institutions (see “—Major Shareholders—General” above). We have entered into related party transactions with both companies within our ordinary course of business, and always on arm's-length terms. During 2020, 2021 and 2022 through the date of this Annual Report, the executed transactions were generally loans, capital markets or derivative transactions provided to us by these financial institutions and agreements for us to provide telecommunications and broadband services to such institutions.

Please see Note 11 to our Consolidated Financial Statements for further information.

Intra-Group Loans

We are the parent company of the Telefónica Group and operate through our subsidiaries and affiliated companies. We coordinate group policies, including financial policy and, in some cases, actual financial management is conducted by us. Most of the transactions we perform with other members of the Telefónica Group relate to financing transactions, including covering their needs for funds and providing interest rate and exchange rate hedges.

At December 31, 2022, as recorded in our parent company accounts, companies in the Telefónica Group owed Telefónica, S.A. a total of 1,715 million euros (3,772 million euros at December 31, 2021), including amounts due under intra-group loans and dividends distributed and uncollected at December 31, 2022.

In addition, at December 31, 2022, companies of the Telefónica Group and their associates had loaned to us (Telefónica, S.A.) a total of 42,777 million euros (43,062 million euros at December 31, 2021), of which 10,019 million euros (10,499 million euros at December 31, 2021) was loaned to us by Telefónica Europe, B.V. and 26,468 million euros (28,817 million euros at December 31, 2021) was loaned to us by Telefónica Emisiones S.A.U., our financing subsidiaries devoted to raising funds in the capital markets, 6,290 million euros (3,580 million euros at December 31, 2021) was loaned to us by Telfisa Global, B.V., our financing subsidiary charged with centralizing and managing the cash pooling of our subsidiaries in Latin America, Europe and the United States, and no amount was loaned to us by other companies (166 million euros at December 31, 2021).

C. Interests of Experts and Counsel

Not applicable.

Item 8. Financial Information

A. Consolidated Financial Statements

Please see Item 18.

(a) Legal Proceedings

Telefónica and its Group companies are party to several legal proceedings which are currently in progress in the courts of law and the arbitration bodies of the various countries in which we are present.

Based on the advice of our legal counsel we believe it is reasonable to assume that these legal proceedings will not materially affect the financial condition or solvency of the Telefónica Group.

The contingencies arising from the litigation and commitments described below were evaluated. The provisions recorded in respect of the commitments taken as a whole are not material.

The following unresolved legal proceedings or those underway in 2022 are highlighted (see “—(b) Tax Proceedings” below and Note 25 to the Consolidated Financial Statements for information on significant tax-related cases).

Appeal against the decision by Agencia Nacional de Telecomunicações (“ANATEL”) regarding the inclusion of interconnection and network usage revenues in the Fundo de Universalização de Serviços de Telecomunicações (“FUST”)

Vivo Group operators (currently "Telefónica Brasil"), together with other cellular operators, appealed ANATEL's decision of December 16, 2005, to include interconnection and network usage revenues and expenses in the calculation of the amounts payable into the FUST (Fundo de Universalização de Serviços de Telecomunicações) – a fund which pays for the obligations to provide Universal Service– with retroactive application from 2000. On March 13, 2006, Brasilia Federal Regional Court no. 1 granted a precautionary measure which stopped the application of ANATEL's decision. On March 6, 2007, a ruling in favor of the wireless operators was issued, stating that it was not appropriate to include the revenues received by transfer from other operators in the taxable income for the FUST's calculation and rejecting the retroactive application of ANATEL's decision. On January 26, 2016, ANATEL filed an appeal to overturn this decision with Brasilia Federal Regional Court no. 1, which was also dismissed. On May 10, 2017 ANATEL appealed to the higher courts on the merits of the case.

At the same time, Telefónica Brasil and Telefónica Empresas, S.A., together with other wireline operators through ABRAFIX (Associação Brasileira de Concessionárias de Serviço Telefonico Fixo Comutado) appealed ANATEL's decision of December 16, 2005, also obtaining the precautionary measures requested. On June 21, 2007, Brasilia Federal Regional Court no. 1 ruled that it was not appropriate to include the interconnection and network usage revenues in the FUST's taxable income and rejected the retroactive application of ANATEL's decision. ANATEL filed an appeal to overturn this ruling on April 29, 2008, before Brasilia Federal Regional Court no. 1, which was dismissed on May 10, 2016. ANATEL filed an appeal against this dismissal.

The fixed operators filed an appeal to clarify that revenues obtained through interconnection and dedicated line operation should not be included in the calculation of the amounts payable to the FUST. In addition, the court was also requested to rule on two grounds which had not been analyzed in the initial decision: (i) that the FUST has become obsolete, among other reasons, by the advance of mobile telephony; and (ii) that amounts collected are not applied to the purpose for which the FUST was created, since only a very low percentage of the revenues collected by the FUST is used to finance fixed telephony. Although the petition for clarification was dismissed on August 23, 2016, the court noted that the FUST should not be funded with revenues from interconnection and dedicated line operation. ABRAFIX appealed to the higher courts on these two elements that had not been analyzed. ANATEL appealed all the holdings of the ruling to the higher courts.

The amount of the claim is quantified at 1% of the interconnection revenues.

Appeal against the Decision of the European Commission dated January 23, 2013, to sanction Telefónica for the infringement of Article 101 of the Treaty on the functioning of the European Union

On January 19, 2011, the European Commission initiated formal proceedings to investigate whether Telefónica, S.A. (Telefónica) and Portugal Telecom SGPS, S.A. (Portugal Telecom) had infringed European Union antitrust laws with respect to a clause contained in the sale and purchase agreement of Portugal Telecom's ownership interest in Brasilcel, N.V., a joint venture in which both companies were venturers and which was the owner of the Brazilian company Vivo.

On January 23, 2013, the European Commission passed a ruling on the formal proceedings. The ruling imposed a fine on Telefónica in the amount of 67 million euros, as the European Commission ruled that Telefónica and Portugal Telecom committed an infraction of Article 101 of the Treaty on the Functioning of the European Union for having entered into the agreement set forth in Clause Nine of the sale and purchase agreement of Portugal Telecom's ownership interest of Brasilcel, N.V.

On April 9, 2013, Telefónica filed an appeal for annulment of this ruling with the European Union General Court. On August 6, 2013, the European Union General Court notified Telefónica of the response issued by the European Commission, in which the European Commission reaffirmed the main arguments of its ruling and, specifically, that Clause Nine includes a competition restriction. On September 30, 2013, Telefónica filed its reply. On December 18, 2013, the European Commission filed its appeal.

A hearing was held on May 19, 2015, at the European Union General Court.

On June 28, 2016, the European Union General Court ruled. Although it declared the existence of an infringement of competition law, it annulled Article 2 of the contested Decision and required the European Commission to reassess the amount of the fine imposed. The General Court considered that the European Commission has not neutralized the allegations and evidences provided by Telefónica on services in which there was not potential competition or were outside the scope of Clause Nine.

Telefónica understands that there are grounds for believing that the ruling does not suit at law; consequently, it filed an appeal to the Court of Justice of the European Union, on September 11, 2016.

On November 23, 2016, the European Commission filed its response against the Telefónica's appeal. On January 30, 2017, Telefónica filed its response. On March 9, 2017, the European Commission filed its rejoinder.

On December 13, 2017, the General Court dismissed the appeal filed by Telefónica. The European Commission, which was urged to recalculate the amount of the fine in the judgment of the General Court of June 2016, issued a resolution on January 25, 2022, imposing a fine of 67 million euros on Telefónica. In April 2022, Telefónica paid the fine of 67 million euros imposed, bringing the procedure to an end.

Decision by the High Court regarding the acquisition by Telefónica of shares in Český Telecom by way of a tender offer

Venten Management Limited ("Venten") and Lexburg Enterprises Limited ("Lexburg") were non-controlling shareholders of Český Telecom. In September 2005, both companies sold their shares to Telefónica in a mandatory tender offer. Subsequently, Venten and Lexburg, in 2006 and 2009, respectively, filed actions against Telefónica claiming a higher price than the price for which they sold their shares in the mandatory tender offer.

On August 5, 2016, the hearing before the High Court in Prague took place in order to decide the appeal against the second decision of the Municipal Court, which had been favorable to Telefónica's position (as was also the case with the first decision of the Municipal Court). At the end of the hearing, the High Court announced the Second Appellate Decision by which it reversed the second decision of the Municipal Court and ordered Telefónica to pay 644 million Czech korunas (approximately 23 million euros) to Venten and 227 million Czech korunas (approximately 8 million euros) to Lexburg, in each case plus interest.

On December 28, 2016, the decision was notified to Telefónica. Telefónica filed an extraordinary appeal, requesting the suspension of the effects of the decision.

In March 2017, Telefónica was notified of the decision of the Supreme Court, which ordered the suspension of the effects of the unfavorable decision to Telefónica issued by the High Court.

Venten and Lexburg filed with the Supreme Court a motion to partially abolish the suspension of enforceability of the Decision of the High Court in Prague. On January 17, 2018, Telefónica filed its response seeking dismissal of such motion for lack of legal basis.

On February 14, 2019, notification was given to Telefónica of the resolution of the Supreme Court which, based on the extraordinary appeal filed by Telefónica, abolished the decision of the High Court in Prague dated August 5, 2016 and remanded the case back to the High Court.

In December 2021, the High Court of Prague confirmed its appointment of an expert in order to produce a new expert report to assess the reliability of market-based price criteria used in the mandatory tender offer and further technical issues discussed in this litigation, including a new discounted cashflow valuation of the shares of Český Telecom in 2005.

Appeal against the resolution of ANATEL to sanction Telefónica Brasil for breaches of the Fixed Telephony Regulation

In May 2018, Telefónica filed a judicial action for annulment against a resolution issued by ANATEL (the National Telecommunications Agency of Brazil) in March 2018 concluding the administrative process for determination of non-compliance with obligations (Processo Administrativo para Apuração de Descumprimento de Obrigações or "PADO") investigating alleged infractions of the Fixed Telephony Regulation by Telefónica Brasil.

This PADO investigation had been suspended during the negotiations of the conduct adjustment term (Termo de Ajustamento de Conduta or "TAC") between Telefónica and ANATEL relating to this and certain other PADO investigations. Since the negotiations concluded without agreement, the suspended PADO sanctioning procedures were reactivated and finalized.

In its resolution of March 2018, ANATEL considered that Telefónica Brasil committed several infractions, specifically those related to the inadequate notice of suspension of services to defaulting users, the terms of reactivation of services after payment of outstanding amounts by defaulting users and the disagreement with the terms of refunds claimed by users of the services.

The fine imposed by ANATEL and appealed by Telefónica Brasil is approximately 211 million Brazilian reals (approximately 38 million euros), which amounted to approximately 575 million Brazilian reals after currency value updates and accrued interest as of December 31, 2022 (approximately 103 million euros).

Telefónica Brasil has appealed the fine imposed by ANATEL based, fundamentally, on the following arguments: (i) ANATEL should have considered a smaller universe of users to determine the fine and (ii) the calculation of the fine is disproportionate and based on insufficient grounds.

Telefónica Brasil has not yet paid the fine, although Telefónica Brasil has guaranteed its payment through a guarantee insurance submitted to the court.

As of the date of this Annual Report, there has been no conciliation and the proceeding is following its normal course.

ICSID Arbitration Telefónica, S.A. vs. Republic of Colombia

In the local arbitration brought by Colombia against Colombia Telecomunicaciones ("ColTel"), on July 25, 2017, the local arbitration tribunal ordered ColTel to pay 470 million euros as economic compensation for the reversion of assets related to voice services in relation to the concession granted between 1994 and 2013.

On August 29, 2017, ColTel's share capital was increased in order to make the payment ordered by the local arbitral award; Telefónica, S.A. contributed and disbursed an amount equivalent to 67.5% of the award's amount (317 million euros) and the Colombian Government contributed an amount equivalent to the remaining 32.5% (153 million euros).

On February 1, 2018, Telefónica, S.A. filed a Request for Arbitration against Colombia at the International Centre for Settlement of Investment Disputes ("ICSID"), which was formally registered on February 20, 2018.

The ICSID Court was constituted on February 26, 2019, with José Emilio Nunes Pinto as President, Horacio A. Grigera Naón appointed by Telefónica, S.A., and Yves Derains appointed by Colombia.

Colombia filed Preliminary Objections on Jurisdiction on August 5, 2019. Telefónica, S.A. responded to Colombia's objections in its Claimant's Memorial on September 23, 2019, in which it also requested that Colombia pay compensation for damages caused to Telefónica, S.A.

On October 23, 2019, Colombia submitted its Complementary Objections on Jurisdiction as well as a request for Bifurcation, to which Telefónica, S.A. responded on November 29, 2019.

On January 24, 2020, the Court dismissed the request for Bifurcation presented by Colombia, ordering the continuation of the proceeding. A decision on the merits of Telefónica, S.A.'s claim is pending.

On July 3, 2020, Colombia filed its reply to the claim filed by Telefónica before the ICSID.

On November 2, 2020, Telefónica presented its response to Colombia's reply.

After the hearing held in April 2021, on July 27, 2021 the hearing of closing arguments was held, and the parties are awaiting the issuance of the arbitration award.

Telefónica's lawsuit against Millicom International Cellular for default in the sale of Telefónica de Costa Rica

Telefónica, S.A. (Telefónica) and Millicom International Cellular, S.A. (Millicom) reached an agreement on February 20, 2019 for the purchase and sale of the entire capital stock of Telefónica de Costa Rica TC, S.A.

In March 2020, Telefónica informed Millicom that, once the pertinent regulatory authorizations had been obtained and all the other conditions established in the aforementioned agreement for the execution of the sale had been completed, the execution of the contract and the closing of the transaction should be in April 2020.

Millicom expressed its refusal to proceed with the closing, arguing that the competent Costa Rican administrative authorities had not issued the appropriate authorization.

On May 25, 2020, Telefónica filed a lawsuit against Millicom before the New York Supreme Court, considering that Millicom had breached the terms and conditions established in the sale contract, demanding compliance with the provisions of the aforementioned agreement, and compensation for all damages that this unjustified breach could cause to Telefónica.

On June 29, 2020, Millicom filed a Motion to Dismiss, to which Telefónica replied on July 8, 2020.

On August 3, 2020, Telefónica submitted an amendment to the lawsuit, removing the requirement to comply with the provisions of the sale and purchase contract and requesting only compensation for all damages that the unjustified breach of said agreement could cause to Telefónica.

On January 5, 2021, the Motion to Dismiss filed by Millicom in June 2020 was dismissed by the New York Supreme Court.

ICSID Arbitration Telefónica, S.A. vs. Republic of Peru

On February 5, 2021, Telefónica filed a request for arbitration against the Republic of Peru at the ICSID, which was formally registered on March 12, 2021.

Telefónica bases its claims on the Agreement for the Promotion and Reciprocal Protection of Investments between the Kingdom of Spain and the Republic of Peru ("APRPI") signed on November 17, 1994. Telefónica argues that the Peruvian tax administration (called Superintendencia Nacional de Aduanas y de Administración Tributaria, known as "SUNAT") and other state bodies have failed to comply with the obligations established in the APRPI, including by adopting arbitrary and discriminatory actions.

It is requested that the defendant be ordered to fully compensate Telefónica for all damages suffered. Once the Tribunal was constituted, on February 9, 2023, Telefónica filed a request for urgent injunctive relief together with a request for injunctive relief, requesting the suspension of the administrative litigation (acción contencioso-administrativa or ACA) related to the income tax for the years 1998, 2000 and 2001, as well as the extension of the deadline for submission by Telefónica of the memorial or claim. Following response of Peru, on February 16, 2023, the Tribunal ruled to dismiss Telefónica's request for urgent injunctive relief, to establish the procedural calendar to process the request for injunctive relief and to grant Telefónica two additional weeks to file the memorial or claim.

Appeal against the ANATEL resolution on the calculation of amounts for the renewal of radio frequencies in Brazil associated with the provision of the personal mobile services (filed in 2013)

In 2013, Telefónica Brasil filed a lawsuit against the resolution of ANATEL which sets forth the calculation of the amount to be paid by Telefónica Brasil for the renewal of radio frequencies associated with the provision of personal mobile services (which has been granted to Telefónica Brasil for a period of fifteen years).

According to ANATEL the renewals, which must be carried out every two years, should be accompanied by a payment equivalent to 2% of all income derived from the provision of personal mobile services, while Telefónica Brasil believes that the calculation must be made with respect to the income derived from voice services only, which would exclude data services and interconnection revenues.

In February 2020, Telefónica Brasil filed an appeal before the Regional Federal Court of Brasilia after obtaining an unfavorable ruling in the Court of First Instance, which considered that the criteria defended by ANATEL was the one to be followed.

As of December 31, 2022, the amount under litigation was 774 million Brazilian reais (139 million euros based on the exchange rate of such date), resulting from the method of calculation of ANATEL that has been appealed.

Appeal against the ANATEL resolution on the calculation of amounts for the renewal of radio frequencies in Brazil associated with the provision of the personal mobile services (filed in 2015)

In 2015, Telefónica Brasil filed a lawsuit against the resolution of ANATEL which sets forth the calculation of the amount to be paid by Telefónica Brasil for the renewal of radio frequencies associated with the provision of personal mobile services (which has been granted to Telefónica Brasil for a period of fifteen years).

According to ANATEL the renewals, which must be carried out every two years, should be accompanied by a payment equivalent to 2% of all income derived from the provision of personal mobile services, while Telefónica Brasil believes that the calculation must be made with respect to the income derived from voice services only, which would exclude data services and interconnection revenues.

In August 2016, Telefónica Brasil filed an appeal before the Regional Federal Court of Brasilia after obtaining an unfavorable ruling in the Court of First Instance, which considered that the criteria defended by ANATEL was the one to be followed. Pending judgment on appeal.

As of December 31, 2022, the amount under litigation was 400 million Brazilian reais (72 million euros based on the exchange rate of such date), resulting from the method of calculation of ANATEL that has been appealed.

UK High Court claim by Phones 4 U Limited against various mobile network operators and other companies, among others, Telefónica, S.A., Telefonica O2 Holdings Limited and Telefonica UK Limited

In late 2018, Phones 4U Limited (in administration) (“P4U”) commenced a claim in the English High Court in London against various mobile network operators: Everything Everywhere, Deutsche Telekom, Orange, Vodafone, Telefónica, S.A., Telefonica O2 Holdings Limited and Telefonica UK Limited (together the “Defendants”).

P4U carried on a business of selling mobile phones and connections to the public, such connections being supplied by mobile network operators including the Defendants. In 2013 and 2014, the Defendants declined to extend and / or terminated their contracts to supply connections to P4U.

P4U went into administration in September 2014.

P4U alleges that the Defendants ceased to supply connections because they had colluded between themselves in contravention of the United Kingdom and the European Union competition laws and asserts that it has a basis to claim damages for breach of competition law by all the Defendants. The Defendants deny all P4U’s allegations.

The claim commenced on December 18, 2018 by P4U. The Defendants filed their initial Defences in the course of April and May 2019, with P4U filing replies on October 18, 2019. The first case management conference took place on March 2, 2020.

The trial was held between May and July 2022. The parties are awaiting the issuance of the sentence.

(b) Tax Proceedings

Inspections in the tax group in Spain

In July 2019, new inspection procedure were initiated for several of the companies belonging to Tax Group 24/90, of which Telefónica, S.A. is the dominant company. The concepts and periods that have been audited are: Corporate Income Tax for the years 2014 to 2017 and Value Added Tax, Withholdings Income Tax for the second half of 2015 and from 2016 to 2018.

A Settlement Agreement was signed in October 2021, in which Telefónica manifested its agreement with certain of the tax assessments resulting from the inspection (specifically, with respect to the tax treatment of the exchange differences generated by assets denominated in Venezuelan bolivars), and its disagreement with others (mainly the consideration of exempt income of the "Juros sobre capital propio" since 2015), producing an impact on results (tax expense) of 387 million euros, with a deferred tax asset reduction as detailed in "Main changes registered in 2021" in Note 25 to the Consolidated Financial Statements. However, the tax assessments did not result in a significant cash outflow as the Telefónica Group had tax credits, which substantially offset their impact.

The closing of the inspection procedure took place in January 2022, with the Settlement Agreement being notified, and which the Company challenged in an economic-administrative procedure at the Central Economic-Administrative Court due to the adjustments with which it did not agree, mainly related to the "juros sobre el capital propio". On 9 December 2022, the Company received a rejection resolution from the Central Economic-Administrative Court, which will be challenged on the National High Court.

In relation to the 2008-2011 inspection procedure, in July 2022 Telefónica was notified of the Supreme Court's decision rejecting the appeal for cassation filed by the State Attorney's Office against the judgment of the Audiencia Nacional (National High Court) of October 29, 2021. This confirmed the criteria used by Telefónica, S.A. for the use of tax losses carryforward and deductions in relation to the liquidation agreements derived from the Corporate Income Tax inspection of those years.

On October 24, 2022, an Agreement for the Execution of the Judgment of the Audiencia Nacional (National High Court) was issued, which orders the refund to Telefónica of an amount of 790 million euros for taxes paid in those years, as well as an amount of 526 million euros as delayed interest. Said amounts were collected on October 28, 2022.

As a consequence of the final outcome of the litigation above mentioned, no additional liabilities were recorded as of December 31, 2022.

Telefónica Brazil

State taxes

The Telefónica Group is involved in a range of tax litigation in Brazil over direct and indirect taxes (including those relating to GVT). This includes a number of appeals relating to ICMS tax (a tax similar to VAT, levied on telecommunications services). There is a dispute with the Brazilian tax authorities over which services should be subject to this tax.

To date the most significant issues have focused on the requirement to collect ICMS on penalties charged to customers for non-compliance, and complementary or additional services to the basic telecommunications services such as value-added services, modem rental, and the application of this tax on the basic fee (assinatura básica). In the case of the latter (assinatura básica), the Supreme Court has established that the tax is only payable in respect of assessments for periods after October 2016.

All related procedures are being contested in all instances (administrative and court proceedings). The aggregate amount of the relevant proceedings, updated to take into account interest, fines and other items, is approximately 21,712 million Brazilian reais as of December 31, 2022 (approximately 3,898 million euros at the exchange rate on that date, see Note 24 to the Consolidated Financial Statements), 19,164 million Brazilian reais as of December 31, 2021 (approximately 3,032 million euros at the exchange rate on that date). Telefónica Brazil has obtained independent expert reports supporting its position, i.e. that the aforesaid services are not subject to ICMS.

Federal taxes

In addition, there are possible contingencies in relation to the income tax federal taxes for the total amount of 29,778 million Brazilian reais as of December 31, 2022 (approximately 5,346 million euros at the exchange rate on that date), 18,078 million Brazilian reais as of December 31, 2021 (approximately 2,860 million euros at the exchange rate on that date), mainly related to the tax amortization in Brazil in the years 2011 to 2020 of the goodwill originated in the acquisitions of Vivo and GVT and their subsequent merger with Telefónica Brasil. These proceedings are at the administrative and judicial stage and no provisions have been made since the potential risk associated with them has been classified as "not probable" and Telefónica Brazil has received independent expert reports that support this view.

There are other probable contingencies in relation to the income tax federal taxes for the total amount of 104 million Brazilian reais as of December 31, 2022 (approximately 19 million euros at the exchange rate on that date), 98 million Brazilian reais as of December 31, 2021 (approximately 16 million euros at the exchange rate on that date). The Company has recognized a provision for this amount.

Telefónica del Perú

In relation to tax claims in Peru, it should be noted that Telefónica del Perú is party to numerous legal proceedings (contentious administrative proceedings (ACAs) and appeals (amparos)) for tax matters relating to corporate income tax and VAT, mainly for the years 1998 to 2005, the most relevant being those corresponding to the years 1998 to 2001 (relating to corporate income tax, payments in advance, credit balances, associated VAT, interest and applicable penalties).

The evolution of the appeals of the different cases from the period 1998 to 2001 has been uneven and complex over the last few years, but we can highlight the second instance Judgment of 2015, which was partially upheld; the Supreme Court Judgments of 2019; the January 2020 Supreme Court Ruling, annulling the previous rulings of 2000 and 2001 in relation to the provision for doubtful debts; the Constitutional Court Rulings in 2021 in relation to the settlement of late payment interest, partially upheld; and the Supreme Court Rulings of 2021 and 2022 on the credit balance from 1999 used in 2000.

On January 17 and 18, 2023, Telefónica del Perú received notifications of the judgments handed down by the Supreme Court that resolved, in the last instance and unfavorably to the Company (references to the "Company" in this section refer to Telefónica del Perú), the contentious administrative proceedings relating to income tax for the years 1998, 2000 and 2001.

The rulings issued by the Fifth Chamber of Constitutional and Social Transitory of the Supreme Court do not contain any payment mandate to the Company, as the rulings issued in the administrative contentious proceedings were resolved on concepts derived from a pronouncement of the Tax Court. At the end of these proceedings - and any others that may be applicable - the Tax Administration, through an administrative act, will determine the amount of the corresponding payment obligations.

Because there were certain adjustments on which the rulings had been definitive since 2015 (positively for the Company in relation to the deductibility of the rental of public spaces and negatively in the case of the deductibility of certain financial charges), the Company previously recorded a provision with an impact on income tax, the amount of which has been updated periodically and constantly depending on the evolution of the various proceedings and the applicable interest rates.

In addition to the above, in June 2022 a new ruling was received from the Tax Court in relation to the corporate income tax of Telefónica Móviles del Perú for 2000. This ruling was favorable to the Company with respect to the recognition of the tax value of certain network assets and unfavorable with respect to the deductibility of the exchange rate tax.

In relation to all these proceedings, the Group considers that the initial amount claimed by the Peruvian government has been exponentially increased by the accrual of interest generated by the delay, not attributable to the Company, of almost 20 years in processing the lawsuits, meaning that almost 80% of the total amount claimed is due to

interest and fines. And all this, despite the fact that in 2021 the Constitutional Court itself ruled in favor of Telefónica del Perú, recognizing that it had been charged interest for delays not attributable to the company.

For this and other reasons, the Group has been in international arbitration before ICSID since March 2021 for various conducts of the Peruvian State in violation of the Agreement for the Promotion and Reciprocal Protection of Investments between Spain and Peru (see Note 29.a)

The Company has recorded the necessary provisions for the contingencies considered probable, leaving as possible contingencies an amount of 560 million Peruvian soles at December 31, 2022 (approximately 138 million euros).

As of December 31, 2022, the total amount of tax contingencies related to Telefónica del Perú that the Group has recognized in its consolidated financial statements, including as the most relevant amount that related to the aforementioned judgements and rulings received since 2015, plus accrued interest and other above-mentioned impacts, amounts to 3,849 million Peruvian soles which is equivalent to 945 million euros at the exchange rate of December 31, 2022.

Tax deductibility of financial goodwill in Spain

The tax regulations added article 12.5 to the Spanish Corporate Income Tax Law, which came into force on January 1, 2002. The article regulated the deductibility of tax amortization of financial goodwill (fondo de comercio) arising from the acquisition of non-Spanish companies, which could be amortized over 20 years at 5% per annum.

Following the entry into force of the Laws 9/2011 of August 19, 2011 and 16/2013 of October 29, 2013, the amount of goodwill amortization deductible for tax purposes under article 12.5 for the years 2011 to 2015 was reduced from 5% to 1%. The effect is temporary because the 4% not amortized for five years (20% in total) will be recovered extending the deduction period from the initial 20 years to 25 years.

The Telefónica Group, under this regulation, has been amortizing for tax purposes the financial goodwill from its investments, both direct and indirect, in O2, BellSouth and ColTel (prior to December 21, 2007) and Vivo (acquired in 2010). The positive accumulated effect of the corresponding settlements of corporate income tax from 2004 to the closing of December 31, 2022, was 2,042 million euros.

In relation to this tax incentive, the European Commission (EC) has in recent years commenced three proceedings against the Spanish State, as it deems that this tax benefit could constitute an example of state aid. Although the EC itself acknowledged the validity of the tax incentive for those investors that invested in European companies for operations carried out before December 21, 2007 in the first decision, and before May 21, 2011 for investments in other countries in the second decision, in its third decision issued on October 15, 2014 it calls into question the applicability of the principle of legitimate expectations in the application of the incentive for indirect acquisitions, whatever the date of acquisition may have been.

There are also doubts in the Spanish Courts about the classification of the incentive as a deduction and its maintenance in the case of subsequent transmission.

On October 6, 2021, the Court of Justice of the European Union concluded that the European Commission correctly classified the Spanish tax depreciation scheme of the Fondo de Comercio as State aid incompatible with the internal market for the First and Second Decisions.

With regard to the recognition of legitimate expectations for the First and Second decisions, the Court of Justice of the European Union confirms its applicability.

The proceedings initiated on the Third Decision, suspended until the resolution of the 1st and 2nd Decisions, were reactivated in October 2021, and are still pending first instance judgment.

Notwithstanding the above, the "Tax and Customs Control Unit of the Spanish Tax Authority" (Dependencia de Control Tributario y Aduanero de la Agencia Tributaria), in compliance with the obligation set out in the EC Decision (EU) 2015/314, recovered in March 2019 and February 2021, the amounts that had been deducted in connection with the amortization of goodwill for the indirect acquisition of non-resident companies from 2005 to 2015 and 2016 to 2018 respectively, and has notified in December 2022 the recovery of the relevant amounts for the years 2019 to 2020. The recovery of such amounts is provisional, pending the final rulings on the appeals brought against the three decisions. The amount paid by Telefónica after offsetting outstanding tax credits (tax losses carryforward and deductions) amounted to 12 million euros.

Notwithstanding the fact that Telefónica understands that the principle of legitimate expectations in relation to this tax incentive applies, in relation to tax-amortized goodwill through the purchase of some companies for which the applicability of the legitimate expectations principle is questioned, mainly Vivo, the Group has released in 2021 the provision for the recovered part, 143 million euros, and has decided to continue provisioning the amount of the goodwill amortized for tax purposes, and not recovered by the Administration which amounted to 406 million euros as of December 31, 2022 (343 million euros as of December 31, 2021).

Years open for inspection in the Group companies

The years open for review by the tax inspection authorities for the main applicable taxes vary from one consolidated company to another, based on each country's tax legislation, taking into account their respective statute of limitations periods. In Spain the taxes from 2018 onwards are open to inspection.

In the other countries in which the Telefónica Group has a significant presence, the years open for inspection by the relevant authorities are generally as follows:

- The last eleven years in Germany.
- The last eight years in the United Kingdom.
- The last seven years in Argentina.
- The last six years in Venezuela
- The last five years in Brazil, Mexico, Colombia, Uruguay and the Netherlands.
- The last four years in Peru.
- The last three years in Chile, Ecuador and the United States.

The tax inspection of the open years is not expected to give rise to additional material liabilities for the Group.

(c) Other Proceedings

The Group is currently cooperating with governmental authorities (and, where appropriate, conducting the relevant internal investigations) regarding requests for information potentially related, directly or indirectly, to possible violations of applicable anti-corruption laws. Telefónica believes that, considering the size of the Group, any potential penalty as a result of matters relating to those specific information requests would not materially affect the Group's financial condition.

Dividend information and shareholders' return

Dividend background

The table below sets forth the annual dividends declared per share and the year to which such dividends correspond. Generally, the dividend for a given year is paid in two tranches, one in the second half of the relevant year and the other during the first half of the following year.

Year ended December 31,	Dividends per share (euro)
2022 (1)	0.30
2021 (2)	0.30
2020 (3)	0.40
2019 (4)	0.40
2018 (5)	0.40

(1) Company's shareholder remuneration in 2022 consists of paying a dividend of up to 0.30 euros per share. A cash dividend of 0.15 euros was paid on December 15, 2022. The second tranche of the dividend is expected to be paid in the second quarter of 2023.

(2) Company's shareholder remuneration in 2021 consists of paying a dividend of up to 0.30 euros per share in scrip dividend: a scrip dividend of up to 0.15 euros was paid in December 2021, and a scrip dividend of up to 0.15 euros was paid in June 2022. A scrip dividend consists of the assignment of free allotment rights with an irrevocable purchase commitment by the Company, and a subsequent capital increase by means of the issue of new shares to fulfill said allotments.

(3) Company's shareholder remuneration in 2020 consists of paying a dividend of up to 0.40 euros per share in scrip dividend: a scrip dividend of up to 0.20 euros was paid in December 2020, and a scrip dividend of up to 0.20 euros was paid in June 2021. A scrip dividend consists of

the assignment of free allotment rights with an irrevocable purchase commitment by the Company, and a subsequent capital increase by means of the issue of new shares to fulfill said allotments.

- (4) Company's shareholder remuneration in 2019 consists of paying a dividend of up to 0.40 euros per share. A cash dividend of 0.20 euros was paid on December 19, 2019. A scrip dividend of up to 0.20 euros was paid in June 2020, consisting of the assignment of free allotment rights with an irrevocable purchase commitment by the Company, and a subsequent capital increase by means of the issue of new shares to fulfill said allotments.
- (5) Company's shareholder remuneration in 2018 consists of paying a dividend of 0.40 euros per share. A cash dividend of 0.20 euros was paid on December 20, 2018. The second tranche of the dividend of 0.20 euros per share was paid in cash on June 20, 2019.

Payments of any future dividends will be dependent on the Group's earnings, cash generation, solvency, liquidity and flexibility to make strategic investments, all of which may be influenced by a variety of factors. See "Cautionary Statement Regarding Forward-Looking Statements".

Treasury shares and share buybacks

We have performed, and may consider performing, transactions with treasury shares and financial instruments or contracts that confer the right to acquire treasury shares or assets whose underlying is Company's shares.

Treasury share transactions will always be for legitimate purposes, including:

- undertaking treasury share acquisitions approved by the Board of Directors or pursuant to General Shareholders' Meeting resolutions;
- honoring previous legitimate commitments assumed;
- covering requirements for shares to allocate to employees and management under stock option plans; and
- other purposes in accordance with prevailing legislation. In the past, treasury shares purchased on the stock market were exchanged for other shares or securities (as in the case of preferred capital securities), swapped for stakes in other companies (e.g. China Unicom, Telco, S.p.A., or Telefónica Brasil in 2015) or acquired to reduce the number of shares in circulation (by redeeming the shares acquired), thereby improving earnings per share.

For a description of transactions on treasury shares, see Note 17 (h) to our Consolidated Financial Statements and "Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchaser".

B. Significant Changes

No significant change has occurred since the date of the Consolidated Financial Statements other than those mentioned in this Annual Report or our Consolidated Financial Statements.

Item 9. The Offering and Listing

A. Offer and Listing Details

General

Our ordinary shares, nominal value 1.00 euro each, are currently listed on each of the Madrid, Barcelona, Bilbao and Valencia stock exchanges and are quoted through the Automated Quotation System under the symbol "TEF". Our ADSs are listed on the New York Stock Exchange and the Lima Stock Exchange under the symbol "TEF".

Citibank, N.A. is the Depository issuing ADSs in form of certificated ADSs (also known as ADRs) or uncertificated ADSs pursuant to the deposit agreement dated as of November 13, 1996, as amended as of December 3, 1999 and as further amended as of June 23, 2000, and as of March 9, 2007, among Telefónica, the Depository and the holders from time to time of ADSs (the "**Deposit Agreement**").

At December 31, 2022, 141,341,317 of our shares were held in the form of ADSs by 501 holders of record, including Cede & Co., the nominee of Depository Trust Company ("**DTC**"). The number of ADSs outstanding was 160,294,519 at December 31, 2021.

Our ordinary shares are quoted on the Spanish Stock Exchanges in euro. Currency fluctuations may affect the dollar equivalent of the euro price of our shares listed on the Spanish Stock Exchanges and, as a result, the market price of our ADSs, which are listed on the New York Stock Exchange (in addition to the Lima Stock Exchange).

Currency fluctuations may also affect the dollar amounts received by holders of ADSs on conversion by the Depository of any cash dividends paid in euro on the underlying shares.

Spanish Securities Market Legislation

Royal Legislative Decree 4/2015, of October 23 (*Ley del Mercado de Valores*, or the “**LMV**”), approved the reinstated text of the Spanish Securities Markets Act, which replaced Law 24/1988, as amended. The LMV regulates the primary and secondary securities markets in Spain by establishing principles for their organization and operation, rules governing the activities of persons and institutions operating in these markets and a system for their supervision.

This legislation and the regulation implementing it (mainly, as far as private issuers are concerned, the Royal Decree 1310/2005, of November 4 (as amended), in relation to the issuance of securities and its admission to listing in official secondary markets, and Royal Decree 1362/2007, of October 19 (as amended), concerning the transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market in the EU):

- establishes an independent regulatory authority, the CNMV, to supervise the securities markets;
- establishes the rules for surveillance, supervision and sanction provided for the representation of transferable securities by book entries or by certificate;
- establishes a framework for the issuance of securities;
- establishes a framework for trading activities;
- establishes the disclosure obligations of issuers, particularly the obligation to file annual audited financial statements and to make public quarterly financial information;
- establishes the framework for tender offers;
- establishes the code of conduct for all market participants; and
- regulates market abuse infringements.

On March 11, 2005, Royal Decree-Law 5/2005 was approved, modifying the LMV in order to implement Directive 2003/71/EC of the European Parliament and of the Council of November 4, 2003, on the prospectus to be published when securities are offered to the public or admitted to trading (which amended the previous European Directive regulating requirements of prospectus –Directive 2001/34/CE–). The Directive: (i) harmonizes the requirements for the process of approval of the prospectuses, so that the EU passport granted to an issuer, valid throughout the European Union, also applies to the prospectus of such issuer; (ii) incorporates the application of the “country of origin principle”, by which the prospectus will be approved by the Member State of the European Union where the issuer has its registered office but introduces the possibility that, in certain circumstances (such as issues with high minimum denominations –1,000 euros or more–), the issuer may choose the relevant European Union competent authority (and thus, the relevant regulatory legal framework) for prospectus approval.

Subsequently, Royal Decree 1310/2005, further amended by Royal Decree 878/2015, partially developed the LMV in relation to the admission to trading of securities in the official secondary markets, the sales or subscriptions, public offers and the prospectuses required to those effects.

On April 12, 2007, Law 6/2007 was approved, modifying the LMV in order to implement Directive 2004/25/EC of the European Parliament and of the Council of April 21, 2004 relating to public tender offers and Directive 2004/109/EC of the European Parliament and of the Council of December 15, 2004 relating to the transparency requirements for issuers whose securities are admitted to trading on a regulated market in the EU. Law 6/2007 intends: (i) to encourage an efficient market for corporate control, while protecting the rights of minority shareholders of listed companies and (ii) to enforce transparency in financial markets.

In relation to public tender offers, Law 6/2007 (i) establishes the cases in which a company must launch a takeover bid over the whole share capital of a listed company; (ii) establishes that mandatory takeover bids shall be launched once a shareholder reaches a specific stake on the share capital of a listed company; (iii) adds new obligations for the management bodies of the target company of the takeover bid in terms of defensive measures against the takeover bid; and (iv) regulates the squeeze-out and sell-out procedures that can be initiated (by the bidder that

launched the takeover bid or by the outstanding minority shareholders after the takeover bid, respectively) when, following a takeover bid, the bidder holds at least 90% of the share capital of the target company. Royal Decree 1066/2007, as amended, completes the regulation currently in place for takeover bids in Spain.

Regarding transparency of issuers whose shares are accepted to trading on an official market, Law 6/2007 (i) modifies the reporting requirements of the periodic financial information of listed companies and issuers of listed securities; (ii) establishes a new disclosure regime for shareholders owning over a certain significant stake in a listed company; (iii) adds new information and disclosure requirements for issuers of listed securities; (iv) establishes the civil liability regime of the issuer and its board of directors in connection with inaccuracies in the financial information disclosed by issuers of securities; and (v) confers new supervisory powers upon the CNMV with respect to the review of accounting information.

On December 19, 2007, Law 47/2007 was approved, modifying the LMV in order to implement Directive 2004/39/EC of the European Parliament and of the Council of April 21, 2004, on Markets in Financial Instruments (MiFID); Directive 2006/73/EC of the European Parliament and of the Council of August 10, 2006 on organizational requirements and operating conditions regarding the Market in Financial Instruments Directive (Directive 2004/39/EC of the European Parliament and of the Council); and Directive 2006/49/EC of the European Parliament and of the Council of June 14, 2006 on the capital adequacy of investment firms and credit institutions. Its principal aim is to establish a general legal framework for financial markets in the European Union, specifically with regard to financial services, as well as to ensure appropriate transparency for investors through a regular flow of the relevant information concerning security issuers. Amongst other things, the new regime (i) establishes new multilateral trading services for listing shares apart from the stock markets; (ii) reinforces the measures for the protection of investors; (iii) establishes new organizational requirements for investment firms; and (iv) implements new supervisory powers for CNMV, establishing cooperation mechanisms amongst national supervisory authorities.

On July 4, 2009, Law 3/2009, regarding structural modifications on Spanish corporations came into force, modifying the maximum threshold established in the Spanish Corporation Act as to the number of treasury shares held by listed companies and their subsidiaries, from 5% up to 10% of their total capital outstanding.

On August 1, 2011, Law 25/2011, partially reforming the Spanish Corporation Act and transposing Directive 2007/36/EC of the European Parliament and of the Council of July 11, relating to the exercise of certain rights by shareholders of listed companies was approved.

On December 21, 2012, Royal Decree 1698/2012, amending regulations regarding prospectus and transparency requirements due on securities issues by the transposition of Directive 2010/73/EU of the European Parliament and of the Council of November 24, 2010, by amending Directive 2003/71/EC on the prospectus to be published when securities are offered to the public or admitted to trading and Directive 2004/109/EC on the harmonization of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market, pursues essentially the reduction of administrative burdens related to the publication of a prospectus for the public offering of securities and admission to trading on markets within the European Union.

On March 20, 2013, ECC/461/2013 regulation was approved. This regulation, as amended, establishes the content and structure of the annual report on corporate governance, the annual compensation report and other information mechanisms for public listed companies, the savings banks and other entities that issue securities admitted to trading on regulated securities markets.

On April 16, 2014, Regulation (EU) 596/2014 (Market Abuse Regulation) of European Parliament and of the Council on market abuse was approved. The regulation repeals Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC. This Regulation has been directly applicable in all European Union Member States since July 3, 2016. Since the adoption of the Market Abuse Regulation, the European Commission has adopted several Implementing Regulations to complement or clarify certain aspects of said Regulation.

On June 12, 2014, the Official Journal of the European Union published Directive 2014/65/EU of the European Parliament and of the Council of May 15, 2014 on markets in financial instruments (which amended Directive 2002/92/EC and Directive 2011/61/EU ("**MIFID II**")) and Regulation (EU) 600/2014 of the European Parliament and Council of May 15, 2014 on markets in financial instruments and amending Regulation (EU) 648/2012 (MiFIR).

On December 3, 2014, Law 31/2014, amending the Spanish Corporation Act was enacted. This law introduced changes in matters related to general shareholders' meetings, and shareholders rights. It also modified the legal

status of members of the Board of Directors, including their compensation, practices and composition and set forth new rules on the composition of Board Committees.

On June 23, 2015, Circular 3/2015 of the CNMV established the information and technical and legal specifications that must be published on public listed companies', savings banks' and other entities' websites, in order to duly comply with the principle of transparency.

On October 2, 2015, Royal Decree 878/2015 was approved with the aim of reaching a greater level of efficiency and safety in the Spanish Automated Quotation System as well as contributing to the development towards an integrated European financial services market. This Royal Decree was enacted to fully implement into Spanish Legislation the provisions of Directive 2013/50/UE of the European Parliament and of the Council of October 22.

On July 20, 2017, Regulation (EU) 2017/1129 of the European Parliament and of the Council of June 14, 2017, on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market (the "**Prospectus Regulation**"), entered into force and became directly applicable in all European Union Member States on a rolling basis, with full application from July 21, 2019. The Prospectus Regulation abolishes and replaces the previous EU Directive 2003/71/EC (the Prospectus Directive). The Prospectus Regulation aims at harmonizing the disclosure regime by removing asymmetries of information and, ultimately, at increasing transparency in the markets. The Prospectus Regulation regulates the content of the prospectuses and contains a list of exemptions from the obligation to produce a prospectus in certain cases.

On November 24, 2017, the Royal Decree-Law 18/2017, implementing in Spain Directive 2014/95/EU of the European Parliament and of the Council of October 22, 2014 as regards disclosure of non-financial and diversity information by certain large undertakings and groups. Such Royal Decree-Law requires certain companies to include in their management report a non-financial statement containing certain additional information relating to environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters.

On January 3, 2018, the new legal framework on markets and financial instruments (based on MiFID II) and Regulation 600/2014/EU of the European Parliament and the Council (MiFIR Regulation) became effective in all European Union Member States. Shortly before such date, on December 29, 2017, Spain approved the Royal-Decree 21/2017 to implement into Spanish legislation the European MiFID II and MiFIR regulations.

On June 28, 2018, Circular 3/2018 of the CNMV on periodic reporting by issuers of securities admitted to trading on regulated markets, regarding half-yearly financial reports, interim management statements and, where applicable, quarterly financial reports, was approved. The aim of this Circular is to adapt the content of the templates of said reports to the changes in national and international accounting standards, mainly the entry into force of IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers.

On September 28, 2018, Spain approved the Royal Decree-Law 14/2018, which amended the LMV to fully implement and reflect in the Spanish Securities Markets Act MiFID II and MiFIR provisions.

On November 23, 2018, Royal Decree-Law 19/2018 on payment services and other urgent financial measures was approved and modified the LMV in order to adapt it to the Market Abuse Regulation.

On December 21, 2018, Royal Decree 164/2018 was approved in order to further develop and complement the abovementioned Royal-Decree 21/2017 of December 29 and Royal Decree 14/2018 of September 28 in MiFID-MiFIR matters.

On December 28, 2018, Law 11/2018 was approved, modifying the Spanish Commercial Code, the revised text of the Spanish Companies Act approved by Royal Legislative Decree 1/2010, of July 2, and Law 22/2015, of July 20, on Audit of Accounts, on non-financial information and diversity. Its main objective is to fully incorporate in Spain EU Directive 2014/95/EU of the European Parliament and of the Council, of October 22, 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

On April 12, 2021, Law 5/2021, implementing Directive 2017/828/EU of the European Parliament and of the Council of May 17, 2017, as regards the encouragement of long-term shareholder engagement was published, amending the Spanish Corporate Enterprises Act.

On September 28, 2021, Circular 3/2021, of the CNMV was approved, which (among others) establishes the new templates for the annual management board compensation report and the annual report on corporate governance for public listed companies.

On May 26, 2022, Circular 2/2022 of the CNMV was approved. This Circular establishes the new forms to be used to report significant shareholdings in entities whose securities are admitted to trading on a regulated market and to report any transaction that an issuer makes with its treasury shares and includes certain new provisions applicable to market makers.

Securities Trading in Spain

The Spanish securities market for equity securities consists of four stock exchanges located in Madrid, Bilbao, Barcelona and Valencia and the Spanish Stock Exchange Interconnection System also known as Automated Quotation System (or in Spanish, “*Sistema de Interconexión Bursátil*” “SIBE” or “*Mercado Continuo*”). During 2022, the Automated Quotation System accounted for the majority of the total trading volume of equity securities on the Spanish Stock Exchanges.

Automated Quotation System

The Automated Quotation System links the four Spanish Stock Exchanges, providing those securities listed on it with a uniform continuous market that eliminates certain of the differences among the local exchanges. The principal feature of the system is the computerized matching of buy and sell orders at the time of entry of the order. Each order is executed as soon as a matching order is entered, but can be exceptionally modified, corrected or canceled until executed with the consent of the contracting parties and provided always that the appropriate authorization has been granted by the Supervision Department or the Trading and Control Committee of Sociedad de Bolsas, S.A. (“Sociedad de Bolsas”). The activity of the market can be continuously monitored by investors and brokers. The Automated Quotation System is operated and regulated by Sociedad de Bolsas, a corporation owned by the companies that manage the local exchanges. All trades on the Automated Quotation System must be placed through a brokerage firm, an official stock broker or a dealer firm that is a member of a Spanish Stock Exchange. Beginning January 1, 2000, Spanish banks were allowed to become members of the Spanish Stock Exchanges and, therefore, can trade through the Automated Quotation System.

Sociedad de Bolsas reinstated the Operating Rules of the Spanish Automated Quotation System by means of Circular 1/2021, of March 17, 2021, which came into effect on March 30, 2021. The aim of such Circular was incorporating in a single regulatory text the rules governing trading in the Automated Quotation System, following their adaptation to the MiFID II standards.

The open session is from 9:00 a.m. to 5:30 p.m. CET (UTC+1), when continuous trading is carried out. In a pre-opening session held from 8:30 a.m. to 9:00 a.m. CET (UTC+1) each trading day, an opening price is established for each security traded on the Automated Quotation System based on a real-time auction. The regime concerning opening prices was changed by an internal rule issued by the Sociedad de Bolsas. Pursuant to such rule, each stock in the continuous market is assigned a static and a dynamic range within which its price can fluctuate. The price of a stock may rise or fall within its static range (which is published once a month and is calculated according to the stock’s average historic price volatility) above or below its opening price (which shall be the closing price of the previous session). When the stock trades outside of this range, the trading of the stock is suspended for five minutes, during which time an auction takes place. After this auction, the price of the stock can once again rise or fall within its static range above or below its last auction price (which will be considered as the new static price before triggering another auction). Furthermore, the price of a stock cannot rise or fall by more than its dynamic price range (which is fixed and published once a month and is calculated according to the stock’s average intra-day volatility), from the last price at which it has traded. If the price variation exceeds the stock’s dynamic range, a five-minute auction is triggered. Between 5:30 p.m. and 5:35 p.m. CET (UTC+1) a closing price is established for each security through an auction system similar to the one held for the pre-opening early in the morning.

Trading hours for block trades are also from 9:00 a.m. to 5:30 p.m. CET (UTC+1). Between 5:30 p.m. and 8:00 p.m. CET (UTC+1), certain trades may occur outside the computerized matching system without prior authorization from Sociedad de Bolsas at a price within the range of 5% above the higher of the average price and closing price for the day and 5% below the lower of the average price and closing price for the day if there are no outstanding bids or offers, respectively, on the system matching or bettering the terms of the proposed off-system transaction and, if, among other things, the trade involves more than 300,000 euros and more than 20% of the average daily trading volume of the stock during the preceding three months. These trades must also relate to individual orders from the same person or entity and be reported to the Sociedad de Bolsas, before 8:00 p.m. CET (UTC+1). At any time, trades may take place (with the prior authorization of the Sociedad de Bolsas) at any price if:

- the trade involves more than 1.5 million euros and more than 40% of the average daily volume of the stock during the preceding three months;
- the transaction derives from a merger or spin-off process, or from the reorganization of a group of companies;
- the transaction is executed for the purposes of settling a litigation or completing a complex group of contracts; or
- Sociedad de Bolsas finds other justifiable cause.

Information with respect to the computerized trades between 9:00 a.m. and 5:30 p.m. CET (UTC+1) is made public immediately, and information with respect to trades outside the computerized matching system is reported to Sociedad de Bolsas by the end of the trading day and published in the Boletín de Cotización and in the computer system by the beginning of the next trading day.

In the event of important news or events or particularly significant incidents arising during Automated Quotation System sessions, the usual duration of trading hours may exceptionally be altered in accordance with the provisions of the Operating Rules of the Spanish Automated Quotation System. The start of a session may also be brought forward for the same reasons. Such decision shall be properly announced and disseminated through the technical means of the Automated Quotation System as soon as possible.

Sociedad de Bolsas is also the manager of the IBEX 35® Index. This index is made up by the 35 most liquid securities traded on the Spanish Market and, technically, it is a price index that is weighted by capitalization and adjusted according to the free float of each company comprised in the index. Apart from its quotation on the four Spanish Exchanges, Telefónica is also currently included in the IBEX 35® Index.

Clearance and settlement system

The Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores S.A.U. (whose commercial name is Iberclear) was created by Law 44/2002 on Measures for the Reform of the Financial System, enacted on November 22, 2002 to increase the efficiency of the Spanish financial markets. Such law introduced a new article, 44-bis to the LMV which established the framework for the constitution of Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores S.A.U.

Iberclear is regulated by the LMV and where appropriate, by Royal Decree 505/1987 of April 3, 1987; Royal Decree 878/2015 of October 2, and by any other related regulation. This company, which is a wholly owned subsidiary of Bolsas y Mercados Españoles, Sociedad Holding de Mercados y Sistemas Financieros, S.A. (Bolsas y Mercados Españoles), has the following functions:

- Keeping accounting records in the form of book entries of securities traded in Securities Markets or in public debt markets, and securities traded in other secondary official markets or multilateral trading facilities, at the request of their governing bodies.
- Keeping accounting records of other securities not listed for trading in secondary official markets, regulated markets or multilateral trading facilities, at the request of their governing bodies.
- Managing settlement and, if necessary, clearing of securities and cash deriving from transactions executed on securities.
- Rendering technical and operating services directly related to those of registration, clearing and settlement of securities and any others required for Iberclear to collaborate and coordinate its actions with other areas and systems of registration, clearing and settlement of securities, for which it may have to be authorized under the Rules of Central Securities Depositories.
- Any other duties assigned by the Spanish Government, subject to prior reports from the CNMV and, if applicable, the Bank of Spain.

In addition, and according to Law 41/1999, Iberclear currently manages the ARCO Securities settlement system (for securities in book-entry form listed on the four Spanish Stock Exchanges, on the Spanish Public Debt Book-Entry Market, on “AIAF Mercado de Renta Fija”, or on other Multilateral Trading Facilities that have appointed Iberclear for such purposes. Only Iberclear participants to this ARCO System are entitled to use it, with participation restricted to

credit entities, investment firms authorized to render custody services, certain public bodies, and Central Securities Depositories and Central Counterparties authorized under their respective European Union Regulations.

Iberclear will provide the CNMV, the Bank of Spain and the Ministry of Economy with the information that these entities may request regarding the registry clearance and settlement performed within the systems managed by Iberclear.

Transactions carried out on the Spanish Stock Exchanges are cleared and settled through Iberclear.

Only members of the system are entitled to use Iberclear, and membership is restricted to authorized broker members of the Spanish Stock Exchanges, the Bank of Spain (when an agreement, approved by the Spanish Ministry of Economy and Finance, is reached with Iberclear) and, with the approval of the CNMV, other brokers not members of the Spanish Stock Exchanges, banks, savings banks and foreign settlement and clearing systems. The clearance and settlement system and its members are responsible for maintaining records of purchases and sales under the book-entry system. Shares of listed Spanish companies are held in book-entry form. Iberclear, which manages the clearance and settlement system, maintains a registry reflecting the number of shares held by each of its member entities (each, an *entidad participante*) as well as the amount of such shares held on behalf of beneficial owners. Each member entity, in turn, maintains a registry of the owners of such shares. Spanish law considers the legal owner of the shares to be the member entity appearing in the records of Iberclear as holding the relevant shares in its own name or the investor appearing in the records of the member entity as holding the shares.

The settlement of any transactions must be made within two business days following the date on which the transaction was carried out.

Spanish law considers the legal owner of the shares to be the participant appearing in the records of Iberclear as holding the relevant shares in its own name, or the investor appearing in the records of the participant as holding the shares. Obtaining legal title to shares of a company listed on a Spanish Stock Exchange requires the participation of a Spanish official stockbroker, broker-dealer or other entity authorized under Spanish law to record the transfer of shares. To evidence title to shares, at the owner's request, the relevant member entity must issue a certificate of ownership. In the event the owner is a member entity, Iberclear is in charge of the issuance of the certificate with respect to the shares held in the member entity's name.

Brokerage commissions are not regulated. Brokers' fees, to the extent charged, will apply upon transfer of title of shares from the Depository to a holder of ADSs in exchange for such ADSs, and upon any later sale of such shares by such holder. Transfers of ADSs do not require the participation of an official stockbroker. The Deposit Agreement provides that holders depositing shares with the Depository in exchange for ADSs or withdrawing shares in exchange for ADSs will pay the fees of the official stockbroker or other person or entity authorized under Spanish law applicable both to such holder and to the Depository.

In 2015, due to changes introduced into the applicable legislation (Laws 32/2011 of October 4, and 11/2015 of June 18, amended the LMV and Royal Decree 878/2015 replaced Royal Decree 116/1992; introducing changes to the Spanish clearing, settlement and book-entry registry procedures applicable to securities transactions to allow post-trading Spanish systems to integrate into the TARGET2 Securities System (T2S)), Bolsas y Mercados Españoles developed a Clearing and Settlement Reform in Spain, implemented throughout 2016 and 2017 in two main phases:

- on April 27, 2016, when a new Central Counterparty (CCP) was implemented and the new platform for equity settlement was introduced; and
- on September 18, 2017, when the Fixed Income settlement system was introduced to the new platform and the TARGET2-Securities (TS2) was implemented and Iberclear successfully connected itself to T2S. During the last quarter of 2017, Iberclear filed for authorization as Central Securities Depository. On September 23, 2019, Iberclear made public that it had been granted the authorization to continue providing services as a Central Securities Depository.

This reform involved the following three fundamental modifications, having impact on several operating practices:

- A new Central Counterparty was incorporated, the so-called BME Clearing, whose intervention takes place between the contract and settlement date, assuming the risk of the counterparty and, where applicable, conducting the clearing transactions and simplifying the settlement.

- Another modification was the application in all kinds of securities of a new system of recording, clearing and settlement. This sole system eliminates the need to use register references by introducing a register based on balances, where Iberclear and each member entity manages its respective records.
- The third modification refers to the integration of the Central de Anotaciones de Deuda (CADE) and the Servicio de Compensación y Liquidación de Valores (SLCV) system into a unique platform.

The Spanish equity market is structured around the three following infrastructures: the Spanish Stock Exchange Interconnection System (SIBE) trading platform, BME Clearing and Iberclear (the Central Securities Depository).

As consequence of the above, several modifications have occurred such as: (i) financial entities can be members of the new infrastructures; (ii) Stock Exchange members have to contract with a General Clearing member of the CCP; (iii) CCP members have to contract with an Iberclear Settlement Participant; (iv) CCP formulates the netting of transactions prior to settlement instructions; (v) the existence of Individual Accounts in the CCP and the Central Securities Deposit; (vi) the maximization of settle transaction in case of delay of delivery of securities by Iberclear; (vii) Collective Deposit change into the CCP guarantee system; or (viii) the introduction of the Post Trading Interface communication system.

Furthermore, changes are also applicable to the Trading Member systems in relation with trading, post trading and control procedures, in order to adapt to the new regime.

B. Plan of Distribution

Not applicable.

C. Markets

Please see “—Offer and Listing Details” above.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

Item 10. Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

The following summary describes certain material considerations concerning our capital stock and briefly describes certain provisions of our bylaws and Spanish law.

Corporate Objectives

Article 5 of Title I of our bylaws sets forth our corporate purposes:

- The provision and operation of all kinds of public or private telecommunications services and, for such purpose, the design, installation, maintenance, repair, improvement, acquisition, disposition, interconnection, management, administration of, and any other activity not included in the preceding enumeration with respect to, all kinds of telecommunications networks, lines, satellites, equipment, systems and technical infrastructure whether now existing or to be created in the future, including the premises in which any and all of the foregoing items are located;

- the provision and operation of all kinds of services that are ancillary or supplemental to or result from telecommunications services;
- the research and development, promotion and application of all kinds of component principles, equipment and systems directly or indirectly used for telecommunications;
- manufacturing and production activities and, in general, all other forms of industrial activity in connection with telecommunications; and
- the acquisition, disposition and, in general, all other forms of commercial activity in connection with telecommunications.

Director Qualification

In order to be elected as a director, a person must have held a number of our shares representing a nominal value of no less than 3,000 euros for at least three years prior to his or her election. These shares may not be transferred so long as such person remains a director. This requirement does not apply to any person who, at the time of his or her appointment, has either a labor or professional relationship with the company or is expressly exempted from such requirement by a vote of at least 85% of the Board of Directors.

Interested Transactions

When a director or persons related to him or her has an interest in a transaction with us or with any of the companies of our Group, such transaction (if unrelated to the ordinary course of our business or if not performed on an arm's-length basis involving consideration that is significant to the Company and otherwise) must be presented to the Nominating, Compensation and Corporate Governance Committee. Such committee shall assess the transaction from the point of view of equal treatment of shareholders and the arm's-length basis of the transaction and shall be included in the Annual Corporate Governance Report and in the periodic information of the Company upon the terms set forth in applicable laws and regulations. The performance of such transactions requires the authorization of our Board of Directors, after the favorable report of the committee. The interested director must refrain from participating in votes that affect such transaction.

Significant Differences in Corporate Governance Practices

Corporate governance guidelines

For a description of our corporate governance practices see "Item 16G. Corporate Governance".

Description of Our Capital Stock

Description of share capital

At February 23, 2023, our issued share capital consisted of 5,775,237,554 ordinary registered shares with a nominal value of 1.00 euro each.

Our shareholders delegated to the Board of Directors the authority to issue up to 2,596,065,843 new shares (equal to half of Telefónica's share capital on June 12, 2020, the date of the authorization). The Board of Directors is authorized to exclude preemptive rights, in whole or in part, pursuant to the applicable provisions of the Spanish Corporation Act. However, the power to exclude pre-emptive rights is limited to shares amounting to up to 20% of the share capital on June 12, 2020, the date of the authorization. The Board's authorization to issue new shares expires on June 12, 2025.

Meetings and voting rights

We hold our ordinary general shareholders' meeting during the first six months of each fiscal year on a date fixed by the Board of Directors. Extraordinary general shareholders' meetings may be called, from time to time, at the discretion of our Board of Directors or upon the request of shareholders representing at least 3% of our paid-in share capital. The minimum percentage required to exercise this right was lowered from 5% to 3% by Law 31/2014.

We publish notices of all ordinary and extraordinary general shareholders' meetings in one of the more widely circulated newspapers in Spain and on the website of the CNMV, and on our website in due time pursuant to the Spanish Corporation Act, being on a general basis at least one month before the relevant meeting. Furthermore, the

Board of Directors may publish notices in other media, if deemed appropriate to ensure the public and effective dissemination of the notice meeting.

Each share of Telefónica, S.A. entitles the holder to one vote. However, only registered holders of at least 300 shares are entitled to attend a general shareholders' meeting. Holders of a lesser number of shares may grant a proxy in respect thereof to a shareholder having the right to attend, as well as group together with other shareholders in the same situation until reaching the required number of shares, following which a proxy must be granted by the shareholders so grouped together to one of such shareholders. The grouping must be carried out specifically for each General Shareholders' Meeting and be recorded in writing.

However, under our bylaws, the maximum number of votes that a shareholder may cast is capped at 10% of our total outstanding voting capital. In determining the maximum number of votes that each shareholder may cast, only the shares held by such shareholder are counted, disregarding those that correspond to other shareholders who have appointed such shareholder as his or her proxy, in spite of applying the limit individually to each of the represented shareholders. This cap will also apply to the maximum number of votes that may be collectively or individually cast by two or more shareholder companies belonging to the same group of entities, as well as to the maximum number of votes that may be cast by an individual or corporate shareholder and the entity or entities that are shareholders themselves and which are directly or indirectly controlled by that individual or corporate shareholder. Moreover, in accordance with the Spanish Corporation Act, such cap would become ineffective where the bidder reaches, as a consequence of a tender offer, a percentage equal to or greater than 70% of the share capital carrying voting rights, unless the bidder (or those acting in concert with the bidder) is not subject to equivalent neutralization measures or has not adopted them.

In addition, according to Article 34 of Spanish Royal Decree-Law 6/2000 of June 23 on urgent measures to improve competition in the goods and services markets, individuals and legal entities directly and indirectly holding more than 3% of the total share capital or voting rights of two or more principal operator companies in Spain in, among other markets, the fixed-line and mobile-line telephony markets, may not exercise their voting rights in excess of 3% of the total in more than one company, except with the prior authorization of the Spanish National Markets and Competition Commission (*Comisión Nacional de los Mercados y la Competencia* (the "CNMC")). Principal operators are defined as one of the five operators with the largest market share in the corresponding market ("**Principal Operators**"). In addition, no individual or legal entity is allowed to appoint, directly or indirectly, members of the management body of more than one Principal Operator in, among others, the fixed-line or mobile-line telephony markets, except with the prior authorization of the CNMC. Additionally, individuals or legal entities considered Principal Operators are not allowed to exercise more than 3% of the voting rights of another Principal Operator nor to appoint, directly or indirectly, members of the management body of any Principal Operator, except, in both cases, with the prior authorization of the CNMC. Telefónica is considered a Principal Operator for the purposes of Article 34 of Royal Decree-Law 6/2000 of June 23 in the Spanish fixed-line and mobile-line telephony markets.

Any share may be voted by proxy. The proxies may be granted in writing or electronically and are valid only for a single meeting, unless the proxy-holder is the granting shareholder's spouse, ascendant or descendant, or holds a general power of attorney granted in a public instrument with powers to manage all of the assets held by the shareholder granting the proxy in Spain. Under the Deposit Agreement relating to our ADSs, the Depositary accepts voting instructions from holders of ADSs. The Depositary executes such instructions to the extent permitted by law and by the terms governing the shares and ADSs. The Depositary or its nominee, as the case may be, will be entitled to vote by proxy the shares underlying the relevant ADSs.

Only holders of record five days prior to the day on which a general meeting of shareholders is scheduled to be held may attend and vote at the meeting.

According to the Spanish Corporation Act, as amended by Law 31/2014, the general shareholders' meeting will be quorate on first call if the shareholders present, in person or by proxy, hold at least 25% of the subscribed share capital carrying voting rights. On second call, the meeting will be quorate regardless of the capital in attendance.

However, if the agenda of the meeting includes resolutions on the amendment of the bylaws, including an increase or reduction of share capital, the transformation, merger, split-off, the en bloc assignment of assets and liabilities, the migration of the registered office abroad, the issuance of debentures or the exclusion or limitation of preemptive rights, the required quorum on first call must be met by the attendance of shareholders representing at least 50% of the subscribed share capital carrying voting rights (each a "Special Resolution"). On second call, the attendance of 25% of the subscribed share capital carrying voting rights will suffice.

As a general rule, resolutions at the general shareholder's meeting will be passed by a simple majority of votes cast at such meeting (i.e., provided that the votes "for" outnumber the votes "against" the relevant resolution).

In contrast, in order to approve any Special Resolution, if the capital present or represented at the general shareholders' meeting exceeds 50% of the subscribed share capital carrying voting rights, the favorable vote of the absolute majority (that is, if the votes in favor exceed 50% of the votes corresponding to capital present and represented at the shareholders' meeting) will be required. If, on second call, shareholders representing 25% or more of the subscribed share capital carrying voting rights are present or represented but fail to reach the 50% threshold, the favorable vote of at least two-thirds of the share capital present or represented at the meeting will be required.

Restrictions on foreign investment

Exchange controls and foreign investments are regulated under Law 19/2003, of July 4 ("Law 19/2003"), as amended pursuant to Royal Decree-Law 8/2020, of March 17, Royal Decree-Law 11/2020, of March 31 and Royal Decree-Law 34/2020, of November 17 (as amended by Royal-Decree Law 12/2021, of June 24, Royal-Decree Law 27/2021 of November 23 and Royal-Decree Law 20/2022 of December 27). Foreign investments are generally liberalized unless they fall within the scope of article 7 bis of Law 19/2003, enacted in March 2020 through Royal Decree-Law 8/2020, or—only with respect to investments in the defense sector—article 11 of Royal Decree 664/1999, of 23 April.

Article 7 bis of Law 19/2003 establishes a screening mechanism for certain investments made by non-EU and non-EFTA residents, based on public order, public health and public security reasons (the "Screening Mechanism"). The Screening Mechanism aligns part of the Spanish foreign investment legal framework with Regulation (EU) 2019/452 of March 19, 2019 establishing a framework for the screening of foreign direct investments into the European Union. Certain provisions of Regulation (EU) 2019/452—such as the list of sectors affecting public order and public security or the definition of state-owned enterprises and other similar investors—are mirrored in the regulations establishing the Screening Mechanism.

The Screening Mechanism can be summarized as follows:

- Under the ordinary procedure, prior authorization from the Spanish Council of Ministers (*Consejo de Ministros*) is required to close foreign direct investments subject to it. The legal term to issue a decision is six months.
- On a transitional basis, until the Screening Mechanism is further developed, a fast-track 30-day procedure, whose resolution is to be issued by a lower-tier authority (the General Directorate for International Trade and Investments—*Dirección General de Comercio Internacional e Inversiones*), applies for investments below 5 million euros. Investments below 1 million euros are not subject to the Screening Mechanism.
- Under both the ordinary and fast-track procedures, the investment will be deemed unauthorized if the relevant authority does not respond to the authorization request within the corresponding legal term.

For the purposes of the Screening Mechanism, the following persons are deemed to be "foreign investors":

- non-EU and non-EFTA residents; and
- EU or EFTA residents beneficially owned by non-EU and non-EFTA residents. This occurs when non-EU and non-EFTA residents ultimately possess or control, directly or indirectly, more than 25% of the share capital or voting rights of the investor, or otherwise exercise control, directly or indirectly, over the investor.

In addition, effective November 19, 2020 and until December 31, 2024, the following persons will also be deemed to be "foreign investors", provided they invest in listed companies or the investment value exceeds 500 million euros—for investments in private companies:

- EU and EFTA residents in countries other than Spain, and
- Spanish residents beneficially owned by EU or EFTA residents in countries other than Spain, that is, those in which a EU or EFTA resident other than in Spain ultimately owns or controls more than 25% of the share capital or voting rights of, or otherwise exercises control over, the Spanish resident.

Foreign direct investments ("FDI") are:

- investments that result in a foreign investor reaching a stake of at least 10% of the share capital of a Spanish company; and
- any corporate transaction, business action or legal transaction which enables effective participation in the management or control of a Spanish company or of a whole part or branch of activity of a Spanish company.

Not all foreign direct investments are subject to the Screening Mechanism. Investors are subject to the Screening Mechanism only if they qualify as FDI and the investment is made in one of the critical sectors or—only where the investor is a Non-UE or non-EFTA investor—by investors that meet certain subjective criteria regardless of the business of the target.

Foreign direct investments in the following sectors are subject to the Screening Mechanism:

- Critical infrastructure, whether physical or virtual, including energy, transport, water, health, communications, media, data processing or storage, aerospace, defense, electoral or financial infrastructure, and sensitive facilities, as well as land and real estate crucial for the use of such infrastructure.
- Critical technologies and dual use items as defined in point 1 of Article 2 of Council Regulation (EC) No 428/2009, including Artificial Intelligence, robotics, semiconductors, cybersecurity, aerospace, defense, energy storage, quantum and nuclear technologies as well as nanotechnologies and biotechnologies.
- Supply of critical inputs, including energy or raw materials, as well as food security.
- Sectors with access to sensitive information, including personal data, or the ability to control such information.
- Media.
- Other sectors designated by the Spanish government from time to time that may affect public security, order or health.

We are engaged in activities that are included in one or more sectors listed above. As such, FDI in Telefónica may be subject to the Screening Mechanism if the conditions described in this section are satisfied.

Foreign direct investments by the following non-EU and non-EFTA investors are also subject to the Screening Mechanism, regardless of the business of the target:

- Investors directly or indirectly controlled by a non-EU and non-EFTA government, including state bodies, armed forces or sovereign wealth funds; the possibility of exercising decisive influence as a result of an agreement or through the ownership of shares or interests in another person (directly or indirectly) is deemed to constitute “control” for these purposes.
- Investors that have already made an investment affecting national security, public order or public health in another EU Member State, including an investment in any of the above-mentioned sectors.
- If there is a serious risk that the investor engages in illegal or criminal activities affecting national security, public order or public health in Spain.

In addition, article 11 of Royal Decree 664/1999, of April 23, establishes that FDI carried out by non-residents in companies engaged in activities qualified as relevant for national defense, will be subject to the Screening Mechanism.

Gun jumping the Screening Mechanism will render the transaction invalid and without any legal effect until the required authorization is obtained. In addition, fines up to the value of the investment could be imposed.

In addition, Royal Decree 664/1999, of April 23, establishes that non-Spanish foreign investors who are not resident in a tax haven are required to file a notification with the Spanish Registry of Foreign Investments following an investment or divestiture, if any, solely for statistical, economic and administrative purposes. Where the investment or divestiture is made in shares of Spanish companies listed on any of the Spanish Stock Exchanges, the duty to provide notice of a foreign investment or divestiture lies with the relevant entity with whom the shares (in book-entry form) have been deposited or which has acted as an intermediary in connection with the investment or divestiture.

If the foreign investor is a resident of a tax haven, as defined under Spanish law (Royal Decree 1080/1991, of July 5), notice must be provided to the Registry of Foreign Investments prior to making the investment, as well as after consummating the transaction. However, prior notification is not necessary in the following cases:

- investments in listed securities, whether or not trading on an official secondary market;
- investments in participations in investment funds registered with the CNMV; and
- foreign shareholdings that do not exceed 50.0% of the capital of the Spanish company in which the investment is made.

Additional regulations to those described above apply to investments in some specific industries, including air transportation, mining, manufacturing and sales of weapons and explosives for civil use and national defense, radio, television, telecommunications and gambling. These restrictions do not apply to investments made by EU residents, other than investments by EU residents in activities relating to the Spanish defense sector or the manufacturing and sale of weapons and explosives for non-military use.

Preemptive Rights

Pursuant to the Spanish Corporation Act, shareholders have preemptive rights to subscribe for any new shares in capital increases with issuances of new shares with a charge to monetary contributions and in issuances of debentures convertible into shares. Such rights may be excluded (partially or totally) under special circumstances by virtue of a resolution passed at a general shareholders' meeting in accordance with Articles 308, 504 and 506 of the Spanish Corporation Act, or by the Board of Directors, if previously authorized at a general shareholders' meeting in accordance with Article 506 of the Spanish Corporation Act (for capital increases) and Articles 417 and 511 (for issuances of debentures convertible into shares). Such preemptive rights will not be available in the event of an increase in capital to meet the requirements of a convertible bond issue or a merger or demerger of another entity into Telefónica or of all or part of the assets split from another company, in which shares are issued as consideration or, in general, when the increase is carried out as consideration in exchange for non-cash contributions. Such rights are transferable, may be traded on the Automated Quotation System and may be of value to existing shareholders because new shares may be offered for subscription at prices lower than prevailing market prices.

Form and Transfer

Ordinary shares are in book-entry form and are indivisible. Joint holders must nominate one person to exercise their rights as shareholders, though joint holders are jointly and severally liable for all obligations arising from their status as shareholders. *Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A. Unipersonal ("Iberclear")*, which manages the clearance and settlement system of the Spanish Stock Exchanges, maintains the central registry of ordinary shares reflecting the number of ordinary shares held by each of its participant entities (*entidades participantes*) as well as the number of such shares held by registered legal owners. Each participant entity in turn maintains a register of the owners of such shares.

Transfers of Telefónica's ordinary shares quoted on the Spanish Stock Exchanges must be made by book-entry registry or delivery of evidence of title to the buyer through, or with the participation of, a member of the Spanish Stock Exchanges that is an authorized broker or dealer. Transfers of Telefónica's ordinary shares may also be subject to certain fees and expenses.

Reporting Requirements

According to Royal Decree 1362/2007 of October 19 on the disclosure of significant stakes in listed companies ("**Royal Decree 1362/2007**"), which was modified by Royal Decree 878/2015, the acquisition or disposition of shares of Telefónica must be reported within four trading days of the acquisition or disposition to Telefónica and the CNMV, where:

- in the case of an acquisition, the acquisition results in that person or group holding a number of voting rights in Telefónica that reaches or surpasses 3% (or 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 60%, 70%, 75%, 80% or 90%) of Telefónica's total number of voting rights; or
- in the case of a disposal, the disposition reduces the number of voting rights held by a person or group below a threshold of 3% (or 5%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 60%, 70%, 75%, 80% or 90%) of Telefónica's total number of voting rights.

Royal Decree 878/2015 established a new approach for calculating whether these thresholds are reached, surpassed or fell short which requires adding the voting rights corresponding to shares and financial instruments. Royal Decree 878/2015 also expands the definition of financial instruments which should be reported, including financial instruments having a similar economic effect as the shares of a company, whether the instruments are cash or physically settled, including convertible securities, options, forwards, futures, swaps, CFDs or any other type of instrument which grants the holder the right to acquire shares or a right to receive an equivalent cash settlement amount. Additionally, Royal Decree 878/2015 amends the calculation rules of the voting rights attributable to a financial instrument which, among other changes, shall now be calculated on a daily basis.

The reporting requirements referred to above apply not only to the acquisition or transfer of shares, but also when, without an acquisition or transfer of shares, the proportion of voting rights of an individual or legal entity reaches, exceeds or falls below the threshold that triggers the obligation to report as a consequence of a change in the total number of voting rights of Telefónica on the basis of the information reported to the CNMV and disclosed by it, in accordance with the Royal Decree.

Regardless of the actual ownership of the shares, any individual or legal entity with a right to acquire, transfer or exercise voting rights granted by the shares, and any individual or legal entity who owns, acquires or transfers, whether directly or indirectly, other securities or financial instruments which grant a right to acquire shares carrying voting rights (such as transferable securities, options, futures, swaps, forwards and other derivative contracts), will also have an obligation to notify the company and the CNMV of the holding of a significant stake in accordance with the above-mentioned regulations.

Stricter disclosure obligations apply if the person obligated to disclose has residency in a country considered a tax haven by the Spanish authorities, a zero-taxation country or territory or a country or territory that does not share information with the Spanish authorities, in which cases the initial threshold for disclosure is reduced to 1% (and successive multiples of 1%).

Pursuant to Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014 on market abuse (market abuse regulation) and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (the "**Market Abuse Regulation**"), persons discharging managerial responsibilities, as well as persons closely associated with them, shall notify Telefónica and the CNMV of every transaction conducted on their own account relating to our shares or debt instruments or to derivatives or other financial instruments linked thereto.

According to the Market Abuse Regulation a "person discharging managerial responsibilities" means a person within an issuer, who is: (a) a member of the administrative, management or supervisory body of that entity; or (b) a senior executive who is not a member of the bodies referred to in (a), who has regular access to inside information relating directly or indirectly to that entity and power to take managerial decisions affecting the future developments and business prospects of that entity.

In addition, in accordance with Article 230 of the LMV, the obligation to notify the transactions will arise when, within a calendar year, the sum without netting of all transactions reaches 20,000 euros. From that first communication, persons discharging managerial responsibilities and the persons closely associated with them must notify each and every subsequent transaction.

As stated above, disclosure obligations are primarily regulated by Royal Decree 1362/2007 (as amended), by the Market Abuse Regulation and by the LMV which establish a detailed set of rules on this legal framework (including, *inter alia*, rules determining the persons subject to disclosure obligations, the different types of situations triggering disclosure and the corresponding exceptions, specific attribution and aggregation rules, the deadlines to notify the transactions, triggering disclosure obligations and incorporation of notices submitted to the CNMV's public registry).

Disclosure of Net Short Positions

In accordance with Regulation (EU) No. 236/2012 of the European Parliament and of the European Council as regards the adjustment of the relevant threshold for the notification of significant net short positions in shares, as amended by the Commission Delegated Regulation (EU) 2022/27 of September 27, 2021 (which entered into force on January 31, 2022), net short positions on shares listed on the Spanish Stock Exchanges equal to, or in excess of, 0.1% (0.2% before the latest amendment) of the relevant issuer's share capital and each 0.1% above that, are required to be disclosed to the CNMV by no later than the first trading day following the transaction. If the net short position reaches 0.5%, and also at every 0.1% above that, the CNMV will disclose the net short position to the public.

Notification is mandatory even if the same position has been already notified to the CNMV in compliance with reporting requirements previously in force in Spain.

The information to be disclosed is set out in Table 1 of Annex I of Delegated Regulation 826/2012, according to the format approved as Annex II of this Regulation. The information will be published, where appropriate, on a web page operated or supervised by the corresponding authority.

Moreover, pursuant to Regulation (EU) No. 236/2012, where the CNMV considers that (i) there are adverse events or developments that constitute a serious threat to financial stability or to market confidence (serious financial, monetary or budgetary problems, which may lead to financial instability, unusual volatility causing significant downward spirals in any financial instrument, etc.); and (ii) the measure is necessary and will not be disproportionately detrimental to the efficiency of financial markets in view of the advantages sought, it may, following consultation with the European Securities and Market Authority (“ESMA”), take any one or more of the following measures:

- impose additional notification obligations by either (a) reducing the thresholds for the notification of net short positions in relation to one or several specific financial instruments; and/or (b) requesting the parties involved in the lending of a specific financial instrument to notify any change in the fees requested for such lending; and
- restrict short selling activity by either prohibiting or imposing conditions on short selling.

In addition, according to Regulation (EU) No. 236/2012, where the price of a financial instrument has fallen significantly during a single day in relation to the closing price on the previous trading day (10% or more in the case of a liquid share), the CNMV may prohibit or restrict short selling of financial instruments for a period not exceeding the end of the trading day following the trading day on which the fall in price occurs.

Finally, Regulation (EU) No. 236/2012 also vests powers to ESMA in order to take measures similar to the ones described above in exceptional circumstances, when the purpose of these measures is to deal with a threat affecting several EU member states and the competent authorities of these member states have not taken adequate measures to address it.

Shareholder Agreements

Article 531 *et seq.* of the Spanish Corporation Act require parties to disclose those shareholders' agreements in respect of Spanish listed companies that affect the exercise of voting rights at a general shareholders' meeting or contain restrictions or conditions on the transferability of shares or bonds that are convertible or exchangeable into shares. If any shareholders enter into such agreements with respect to Telefónica's shares, they must disclose the execution, amendment or extension of such agreements to Telefónica and the CNMV (together with the relevant clauses of said agreements) and file such agreements with the appropriate Commercial Registry. Failure to comply with these disclosure obligations renders any such shareholders' agreement unenforceable and constitutes a violation of the LMV.

Acquisition of Own Shares

Pursuant to Spanish corporate law, we may only repurchase our own shares within certain limits and in compliance with the following requirements:

- the repurchase must be authorized by the general shareholders' meeting by a resolution establishing the maximum number of shares to be acquired, the minimum and maximum acquisition price and the duration of the authorization, which may not exceed five years from the date of the resolution; and
- the repurchase, including any shares already held by us or a person acting on our behalf, must not bring our net worth below the aggregate amount of our share capital and legal reserves.

For these purposes, net worth means the amount resulting from the application of the criteria used to draw up the financial statements, subtracting the amount of profits directly imputed to that net worth, and adding the amount of share capital subscribed but not called and the share capital par and issue premiums recorded in our accounts as liabilities. In addition:

- the aggregate par value of the shares directly or indirectly repurchased, together with the aggregate par value of the shares already held by us and our subsidiaries, must not exceed 10% of our share capital; and
- the shares repurchased must be fully paid and must be free of ancillary contributions (*prestaciones accesorias*).

Voting rights attached to treasury shares will be suspended and economic rights (e.g., the right to receive dividends and other distributions and liquidation rights), except the right to receive bonus shares, will accrue proportionately to all of our shareholders. Treasury shares are counted for the purpose of establishing the quorum for shareholders' meetings and majority voting requirements to pass resolutions at shareholders' meetings.

Regulation (EU) No. 596/2014 of April 16, repealing, among others, Directive 2003/6/EC of the European Parliament and the European Council of January 28, on insider dealing and market manipulation establishes rules in order to ensure the integrity of European Community financial markets and to enhance investor confidence in those markets. This regulation maintains an exemption from the market manipulation rules regarding share buyback programs by companies listed on a stock exchange in an EU Member State. Commission Regulation (EC) No. 2273/2003, of December 22, implemented the aforementioned directive with regard to exemptions for buyback programs. Article 5 of this regulation states that in order to benefit from the exemption, a buyback program must comply with certain requirements established under such regulation and the sole purpose of the buyback program must be to reduce the share capital of an issuer (in value or in number of shares) or to meet obligations arising from either of the following:

- debt financial instruments exchangeable into equity instruments; or
- employee share option programs or other allocations of shares to employees of the issuer or an associated company.

CNMV Circular 1/2017, dated April 26, on liquidity contracts entered into by issuers with financial institutions for the management of its treasury shares, as amended by CNMV Circular 2/2019, dated November 27, governs the disclosure requirements for issuers and the rules of conduct to be followed by financial intermediaries when trading under a liquidity agreement for these trades to benefit from the safe harbor provided by such Circular and qualify as an accepted market practice for the purposes of market abuse regulations.

If an acquisition or series of acquisitions of shares of Telefónica reaches or exceeds or causes Telefónica's and its affiliates' holdings to reach or exceed 1% of Telefónica's voting shares, Telefónica must notify its final holding of treasury stock to the CNMV. If such threshold is reached as a result of a series of acquisitions, such reporting obligation will only arise after the closing of the acquisition which, taken together with all acquisitions made since the last of any such notifications, causes the Telefónica's and its affiliates holdings to exceed, 1% of Telefónica's voting shares. Sales and other dispositions of Telefónica's treasury stock will not be deducted in the calculation of such threshold. This requirement also applies if the stock is acquired by a majority-owned subsidiary of Telefónica.

Moreover, pursuant to Spanish corporate law, the audited financial statements of a company must include a reference regarding any treasury shares.

At December 31, 2022, we held 85,217,621 shares of treasury stock, representing 1.47600% of our capital stock. At December 31, 2021, we held 139,329,370 shares of treasury stock, representing 2.41100% of our capital stock. For further description about our shareholders' return, see "Item 8. Financial Information—Dividend Information and Shareholders' Return".

At our annual general shareholders' meeting held on June 8, 2018, our shareholders extended their prior authorization to the Board of Directors to acquire our shares for an additional five years from the date of such meeting. The authorization also applies to companies under our control. Pursuant to the authorization, the aggregate nominal value of our shares held by us or any of our subsidiaries cannot exceed the limit established by applicable laws (which is, as of the date of this Annual Report, 10% of our outstanding capital).

Change of Control Provisions

Certain antitrust regulations may delay, defer or prevent a change of control of Telefónica or any of its subsidiaries in the event of a merger, acquisition or corporate restructuring. In Spain, the application of both Spanish and European antitrust regulations requires that prior notice of domestic or cross-border merger transactions be given in order to obtain a "non-opposition" ruling from antitrust authorities.

Tender Offers

Tender offers are governed in Spain by the Spanish Securities Markets Act (as amended by Law 6/2007 of April 12) and Royal Decree 1066/2007, of July 27, which have implemented Directive 2004/25/EC of the European Parliament and of the European Council of April 21. Tender offers in Spain may qualify as either mandatory or voluntary offers.

Mandatory public tender offers must be launched for all the shares of the target company or other securities that might directly or indirectly give the right to subscription thereto or acquisition thereof (including convertible and exchangeable bonds) at an equitable price and not subject to any conditions when any person acquires control of a Spanish company listed on the Spanish Stock Exchanges, whether such control is obtained:

- by means of the acquisition of shares or other securities that directly or indirectly give voting rights in such company;
- through agreements with shareholders or other holders of said securities; or
- as a result of other situations of equivalent effect as provided in the regulations (i.e., indirect control acquired through mergers, share capital decreases, target's treasury stock variations or securities exchange or conversion, etc.).

A person is deemed to have obtained the control of a target company, individually or jointly with concerted parties, whenever:

- it acquires, directly or indirectly, a percentage of voting rights equal to or greater than 30%; or
- it has acquired a percentage of less than 30% of the voting rights and appoints, in the 24 months following the date of acquisition of said percentage, a number of directors that, together with those already appointed, if any, represent more than one-half of the members of the target company's board of directors. Regulations also set forth certain situations where directors are deemed to have been appointed by the bidder or persons acting in concert therewith unless evidence to the contrary is provided.

Notwithstanding the above, Spanish regulations establish certain exceptional situations where control is obtained but no mandatory tender offer is required, including, among others:

- subject to the CNMV's approval,
 - acquisitions or other transactions resulting from the conversion or capitalization of credits into shares of listed companies, the financial feasibility of which is subject to serious and imminent danger, even if the company is not undergoing bankruptcy proceedings, provided that such transactions are intended to ensure the company's financial recovery in the long term; or
 - in the event of a merger, provided that those acquiring control did not vote in favor of the merger at the relevant general shareholders' meeting of the offeree company and provided also that it can be shown that the primary purpose of the transaction is not the takeover but an industrial or corporate purpose; and
- when control has been obtained after a voluntary bid for all of the securities, if either the bid has been made at an equitable price or has been accepted by holders of securities representing at least 50% of the voting rights to which the bid was directed.

For the purposes of calculating the percentages of voting rights acquired, the regulations establish the following rules:

- percentages of voting rights corresponding to (i) companies belonging to the same group of the bidder; (ii) members of the board of directors of the bidder or of companies of its group; (iii) persons acting for the account of or in concert with the bidder (a concert party shall be deemed to exist when two or more persons collaborate under an agreement, be it express or implied, oral or written, in order to obtain control of the offeree company); (iv) voting rights exercised freely and over an extended period by the bidder under proxy granted by the actual holders or owners of such rights in the absence of specific instructions with respect thereto; and (v) shares held by a nominee, such nominee being understood as a third party whom the bidder totally or partially covers against the risks inherent in acquisitions or transfers of the shares or the

possession thereof, will be deemed to be held by the bidder (including the voting rights attaching to shares that constitute the underlying asset or the subject matter of financial contracts or swaps when such contracts or swaps cover, in whole or in part, against the risks inherent in ownership of the securities and have, as a result, an effect similar to that of holding shares through a nominee);

- both the voting rights arising from the ownership of shares and those enjoyed under a usufruct or pledge or upon any other title of a contractual nature will be counted towards establishing the number of voting rights held;
- the percentage of voting rights shall be calculated based on the entire number of shares carrying voting rights, even if the exercise of such rights has been suspended; voting rights attached to treasury shares shall be excluded; and non-voting shares shall be taken into consideration only when they carry voting rights pursuant to applicable law; and
- acquisitions of securities or other financial instruments giving the right to the subscription, conversion, exchange or acquisition of shares which carry voting rights will not result in the obligation to launch a tender offer either until such subscription, conversion, exchange or acquisition occurs.

Notwithstanding the foregoing, upon the terms established in the regulations, the CNMV will conditionally dispense with the obligation to launch a mandatory bid when another person or entity, individually or jointly in concert, directly or indirectly holds an equal or greater voting percentage than the potential bidder in the target company.

The price of the mandatory tender offer is deemed equitable when it is at least equal to the highest price paid or agreed by the bidder or by any person acting in concert therewith for the same securities during the 12 months prior to the announcement of the tender offer. When the mandatory tender offer must be made without the bidder having previously acquired the shares over the above-mentioned 12-month period, the equitable price shall not be less than the price calculated in accordance with other rules set forth in the regulations. In any case, the CNMV may change the price so calculated in certain circumstances (extraordinary events affecting the price, evidence of market manipulation, etc.).

Mandatory offers must be launched within one month from the acquisition of the control of the target company.

Voluntary tender offers may be launched when a mandatory offer is not required. Voluntary offers are subject to the same rules established for mandatory offers except for the following:

- they may be subject to certain conditions (such as amendments to the bylaws or adoption of certain resolutions by the target company, acceptance of the offer by a minimum number of securities, approval of the offer by the shareholders' meeting of the bidder and any other deemed by the CNMV to be in accordance with law), provided that such conditions can be met before the end of the acceptance period of the offer; and
- they may be launched at any price, regardless of whether it is lower than the above-mentioned "equitable price". However, if they are not launched at an equitable price and if the tender offer shares representing at least 50% of the voting rights are tendered in the offer (excluding voting rights already held by the bidder and those belonging to shareholders who entered into an agreement with the bidder regarding the tender offer), the bidder may become obliged to launch a mandatory tender offer.

In any case, by virtue of an amendment to the LMV operated by Law 1/2012, of June 22, the price in a voluntary tender offer must be the higher of (i) the equitable price and (ii) the price resulting from an independent valuation report, and must at least consist of cash as an alternative if certain circumstances have occurred during the two years prior to the announcement of the offer (basically, the trading price for the shares being affected by price manipulation practices, market or share prices being affected by natural disasters, *force majeure*, or other exceptional events, or the target company being subject to expropriation or confiscation resulting in a significant impairment of the company's real value).

Spanish regulations on tender offers set forth further provisions, including:

- subject to shareholder approval within 18 months from the date of announcement of the tender offer, the board of directors of a target company will be exempt from the rule prohibiting frustrating action against a foreign bidder whose board of directors is not subject to an equivalent passivity rule;

- defensive measures included in a listed company's bylaws and transfer and voting restrictions included in agreements among a listed company's shareholders will remain in place whenever the company is the target of a tender offer, unless the shareholders resolve otherwise (in which case any shareholders whose rights are diluted or otherwise adversely affected will be entitled to compensation at the target company's expense); and
- squeeze-out and sell-out rights will apply provided that following a tender offer for all the target's share capital, the bidder holds securities representing at least 90% of the target company's voting capital and the tender offer has been accepted by the holders of securities representing at least 90% of the voting rights other than those held by or attributable to the bidder previously to the offer.

Payment of Taxes

Holders of ordinary shares will be responsible for any taxes or other governmental charges payable on their ordinary shares, including any taxes payable on transfer. The paying agent or the transfer agent, as the case may be, may, and upon instruction from Telefónica, will:

- refuse to effect any registration of transfer of such ordinary shares or any split-up or combination thereof until such payment is made; or
- withhold or deduct from any distributions on such ordinary shares or sell for the account of the holder thereof any part or all of such ordinary shares (after attempting by reasonable means to notify such holder prior to such sale), and apply, after deduction for its reasonable expenses incurred in connection therewith, the net proceeds of any such sale to payment of such tax or other governmental charge. The holder of such ordinary shares will remain liable for any deficiency.

Dividends

Shareholders vote on final dividend distributions at the shareholders' meeting. Distributable profits are equal to:

- net profits for the year; plus
- profits carried forward from previous years; plus
- distributable reserves; minus
- losses carried forward from previous years; minus
- amounts allocated to reserves as required by law or by our bylaws.

The amount of distributable profits is based on our unconsolidated financial statements prepared in accordance with Spanish GAAP, which differ from the Consolidated Financial Statements prepared in accordance with IFRS included elsewhere in this Annual Report.

The Board of Directors can approve interim dividend payments without a prior shareholder vote on the issue. However, under those circumstances, the dividend is limited to distributable net profits of the current year and is subject to certain legal requirements.

Unclaimed dividends revert to us five years from their date of payment.

Registration and transfers

Our shares are in registered book-entry form. Transfers executed through stock exchange systems are implemented pursuant to the stock exchange clearing and settlement procedures carried out by the Spanish clearing institution. Transfers executed outside of stock exchange systems, that is, over the counter, are implemented pursuant to the general legal regime for book-entry transfer, including registration by the Spanish clearing institution.

There are no restrictions with respect to the transfer of our shares.

Liquidation rights

Under Spanish law, upon our liquidation, the shareholders would be entitled to receive, on a pro rata basis, any assets remaining after the payment of our debts and taxes and liquidation expenses.

C. Material Contracts

Agreement related to the Sale of Customer Relationship Management (“CRM”) Business, Atento

As a result of the sale agreement of Atento by Telefónica, announced on October 12, 2012, and ratified on December 12, 2012, both companies signed a Master Service Agreement which regulates Atento’s relationship with the Telefónica Group as a service provider for a period of nine years and which has been amended on May 16, 2014, November 8, 2016, May 11, 2018, November 28, 2019 and February 4, 2022. The term of the agreement was extended for Spain and Brazil in November 2016, for two additional years until the end of 2023, and for Latin America in February 2022, for one additional year until the end of 2022.

By virtue of this agreement, Atento became Telefónica’s preferred Contact Center and Customer Relationship Management (“CRM”) service provider, stipulating annual commitments in terms of turnover which is updated based on inflation and deflation that vary from country to country, pursuant to the volume of services Atento has been providing to the entire Group. Effective January 1, 2017, the minimum volume commitments that Telefónica must comply with have significantly decreased for Brazil and Spain. Additionally, from January 1, 2019 a new reduction of the minimum commitment has been agreed, in this case only for Spain.

Failure to meet the annual turnover commitments in principle results in the obligation to the counterparty, to pay additional amounts, which would be calculated based on the difference between the actual amount of turnover and the predetermined commitment, applying a percentage based on the Contact Center’s business margin to the final calculation.

Notwithstanding the above, as a consequence of the amendment signed with the Atento Group on May 11, 2018, from January 1, 2018 the payment obligation for failure to meet the annual turnover commitment continues to be calculated every year but will only be liquidated upon termination of the agreement. Such payment will only be due if the balance is in favor of Atento after adding certain amounts agreed between the parties and deducting an annual percentage of the Atento Group’s sales to the Telefónica Group.

The Master Agreement sets forth a reciprocal arrangement, whereby Atento assumes similar commitments to subscribe certain telecommunications services from Telefónica.

Football (soccer) License Agreements with LaLiga, UEFA and RFEF, respectively

On June 25, 2018, Telefónica was provisionally awarded with the broadcasting rights for all football (soccer) matches of the Spanish First Division Football League National Championship in the residential subscribers market for exploitation on pay television for the 2019-2022 cycle (packages 4 and 5 of the auction called by the Professional Football League). The definitive agreements were signed on July 5, 2018.

The award was granted for a total amount of 2,940 million euros, at an identical price of 980 million euros for each of the three seasons, which represents a slight decrease compared to the last season of the previous cycle. Telefónica, as the operator of these broadcasting rights for the 2019-2022 cycle, has the right to decide, design and develop the broadcasting content, which carried the Movistar hallmark for the 2019-2020 season.

On December 21, 2018, Telefónica was provisionally awarded with the broadcasting rights for all football (soccer) matches of the Spanish Second Division Football League National Championship in the residential subscribers market for exploitation on pay television for the 2019-2022 cycle (package 6 of the auction called by the Professional Football League). No other bids were submitted for such package during the first round of the auction called by the Professional Football League. The award was granted for a total amount of 105 million euros (i.e., 35 million euros for each of the 3 seasons).

On January 11, 2019 the definitive agreement on such broadcasting rights (package 6) was signed.

On July 2, 2020 Telefónica signed an agreement for acquiring the exclusive media rights in Spain of UEFA Champions League and UEFA Europa League, as well as the UEFA Europa Conference League (a new competition to be separated from the UEFA Europa League) and UEFA Youth League, for the next cycle comprising seasons 2021/22, 2022/23 and 2023/2024, after the expiration of the agreement with Mediapro of June 28, 2018 for previous cycle 2018/2019 to 2020/2021.

The agreement guarantees Telefónica all media rights with respect to the main European football competitions for all its customers, both residential and horecas (hotels, restaurants, cafes, etc.).

The direct acquisition from UEFA of this "premium" content will also allow Telefónica to continue designing and selling its own produced channels and content with the best European football that could be, likewise, accessible to other operators in the market interested in this content.

The total award price for all competitions amounted to 975 million euros (i.e. 325 million euros for each of the seasons 2021/22, 2022/23 and 2023/2024) which is less than the license fees paid for the previous cycle and without any year-to-year increase.

On December 13, 2021, Telefónica was provisionally awarded the exclusive broadcasting rights of five matches per matchday of the Campeonato Nacional de Liga de Primera División ("LaLiga"), for pay television in the residential market, in Spain. Telefónica received the first pick in 18 matchdays of each season and second pick in 17 matchdays, including "El Clásico" of the second round (Option D bis, Lot D.1 bis).

Likewise, Telefónica was awarded the exclusive broadcasting rights of three matchdays, which contain ten matches each matchday, including matches of Real Madrid C.F., F.C. Barcelona and Club Atlético de Madrid against the six first classified of the previous season; and Valencia C.F., Athletic Club de Bilbao or Real Betis Balompié, if they were not among the aforementioned first classified (Option D bis, Lot D.3 bis).

The award includes the cycle 2022/2023 to 2026/2027 although the 2025/2026 and 2026/2027 seasons are subject to the CNMC lifting or modifying the resolution that limits the maximum duration of the contracts entered into by Telefónica for the acquisition of sports rights (Expte. VC/0612/14).

The award has been made at a price of 520 million euros for each of the seasons.

The award was subject to the execution of an agreement between Telefónica and LaLiga with the remaining terms and requirements established in the LaLiga tender, which was signed on January 19, 2022.

On March 28, 2022, Telefónica entered into an agreement with the company DAZN for the distribution of the so-called DAZN LaLiga Package. Such package includes the remaining five football matches per match-weekend of the Spanish First Division Football Championship, in 35 out of 38 match-weekends for exploitation on pay television for residential subscribers in Spain (Option D bis, Package D.2 bis).

This is a non-exclusive agreement for five seasons, from 2022/2023 to 2026/2027. The agreed value amounts 280 million euros for each of the seasons.

In addition, on July 29, 2022, Telefónica signed a new contract with LaLiga for the non-exclusive broadcasting of the channel that broadcasts matches of Second Division of National Football Championship League for seasons 2022/2023, 2023/2024 and 2024/2025, with Telefónica's unilateral option to extend for two additional seasons, with a variable cost that amounts to approximately 16 million euros per season.

Similarly, on August 4, 2022, a contract was formalized with LaLiga for the non-exclusive broadcast of the LaLiga TV Bar Channel for non-residential subscribers for the 2022/2023 season with a minimum guarantee of 29 million euros, being the final price variable.

On November 2, 2022, Telefonica was also awarded by Real Federacion Española de fútbol (RFEF) exclusive pay television rights of Copa del Rey Competiton and Supercopa de España for seasons 2022/2023, 2023/2024 and 2024/2025.

Agreement for the sale of Telefónica de Costa Rica

On February 20, 2019, Telefónica, S.A. reached an agreement with Millicom International Cellular, S.A. for the sale of 100% of Telefónica de Costa Rica TC, S.A., a company that provides fixed and mobile communication services in Costa Rica, for an amount (enterprise value) of 570 million dollars (approximately 503 million euros at the exchange rate as of the date of the agreement).

Once the relevant regulatory approvals were obtained and all the remaining conditions set forth in the agreement for the consummation of the sale of Telefónica de Costa Rica were completed, Millicom International Cellular, S.A. refused to close the acquisition arguing that one of the Costa Rican administrative authorities had not issued the appropriate authorization. On May 25, 2020, Telefónica filed a lawsuit against Millicom International Cellular, S.A. before the New York Supreme Court, considering that Millicom has breached the terms and conditions established in the sale contract. Further details on this legal proceeding against Millicom International Cellular, S.A. are provided

in Note 29.a) to the Consolidated Financial Statements and "Item 8. Financial Information—Consolidated Financial Statements—Legal proceedings".

On July 30, 2020, Telefónica, S.A. reached an agreement with Liberty Latin America LTD, S.A. for the sale of 100% of Telefónica de Costa Rica TC, S.A., a company that provides fixed and mobile communications services in Costa Rica. On August 9, 2021, after obtaining the appropriate authorizations, Telefónica transferred 100% of the shares of Telefónica de Costa Rica TC, S.A. for an amount of 538 million U.S. dollars (approximately 457 million euros at the exchange rate as of the closing date).

Agreement for the sale of a portfolio of data center businesses

On May 8, 2019, Telefónica reached an agreement for the sale of a portfolio of 11 data center businesses located in seven jurisdictions (Spain, Brazil, the United States, Mexico, Peru, Chile and Argentina) to a company controlled by Asterion Industrial Partners SGEIC, S.A. (hereinafter, "Nabix") for a total amount of 550 million euros to be paid at the time of effective transfer.

At the same time as this sale, agreements were entered into with Nabix to provide housing services to the Telefónica Group, allowing Telefónica to continue providing housing services to its customers, in accordance with its previous commitments. Such service provision agreements have an initial term of ten years and include minimum consumption commitments in terms of capacity. These commitments are consistent with the Group's expected consumption volumes, while prices are subject to review mechanisms based on inflation and market reality.

On July 24, 2019, Telefónica transferred nine data center businesses located in six jurisdictions (Spain, Brazil, Mexico, Peru, Chile and Argentina) to the buyer for a total amount of 472 million euros.

On December 18, 2019, after obtaining the appropriate authorizations, Telefónica transferred one data center business located in the United States for a total amount of 43 million euros.

On December 23, 2020, after obtaining the appropriate authorizations and fulfilling certain conditions, Telefónica transferred the last data center located in Spain for a total amount of 34.7 million euros.

Hence, following these transfers, as of December 31, 2020, Nabix was operating eleven data centers sold by Telefónica.

On May 7, 2021, Asterion Industrial Partners SGEIC, S.A. and Telefónica Infra (T. Infra), the infrastructure unit of the Telefónica Group, reached an agreement for the contribution to Nabix of four additional data centers owned by the Telefónica Group (two of them located in Spain and two in Chile). In exchange for the contribution of these four data centers, T. Infra will receive a 20% equity stake in Nabix. Once the relevant authorizations and other conditions precedent to the contribution of the two data centers located in Spain were obtained, the partial closing of the transaction took place as of July 21, 2021, whereby Telefónica Group contributed those data centers to Nabix, with T. Infra receiving in exchange a 13.94% stake in Nabix at this stage. The agreement was complemented by the signing of a contract for the provision to Telefónica of housing services from those two data centers under terms and conditions equivalent to those established in the transaction executed in 2019, for an initial period of ten years.

Once the conditions related to the contribution of the two data centers located in Chile were fulfilled, on May 24, 2022, the complete closing of the transaction took place, and T. Infra reached a 20% stake in Nabix (see Note 10 to the Consolidated Financial Statements). The agreement was complemented by the signing of a contract for the provision to Telefónica of housing services from those two data centers under terms and conditions equivalent to those established in the transaction executed in 2019, for an initial period ending in 2031.

Wholesale Access Services Agreement with AT&T Mexico

On November 21, 2019, Pegaso PCS, S.A. de C.V. ("Telefónica México") and AT&T Comunicaciones Digitales, S. de R.L. de C.V. ("AT&T Mexico") entered into a Wholesale Access Services Agreement ("Wholesale Agreement"), under which AT&T Mexico agreed to provide wholesale wireless access to Telefónica México on 3G, 4G and any other future technology available in Mexico.

The Wholesale Agreement has a minimum duration of eight years, renewable for additional consecutive periods of three years. Such Wholesale Agreement establishes a gradual migration of Telefónica México's traffic to AT&T Mexico's access network over the first three years of the agreement.

As set forth in the Wholesale Agreement such migration was completed during the first half of 2022. As a result, Telefónica México's wireless access infrastructure was turned off and Telefónica México no longer uses the licensed spectrum that it used in the past to operate its network.

50:50 joint venture with Liberty Global for the combination of both groups' businesses in the United Kingdom

On May 7, 2020, Telefónica agreed to enter into a joint venture with Liberty Global plc ("Liberty Global") pursuant to a contribution agreement (as amended, the "Contribution Agreement") between Telefónica, Telefonica O2 Holdings Limited, Liberty Global, Liberty Global Europe 2 Limited and a newly formed entity of which, after closing, each of Telefónica and Liberty Global would hold 50% of its share capital named VMED O2 UK Limited.

After having obtained the clearance from the Competition and Market Authority (the antitrust authority in the UK) to complete this transaction and having fulfilled all the other pre-closing conditions included in the Contribution Agreement, the transaction was completed on June 1, 2021. From such date, Telefónica and Liberty Global each hold an equal number of shares in VMED O2 UK Limited; after: (i) Telefónica having contributed to VMED O2 UK Limited its O2 mobile business in the United Kingdom and (ii) Liberty Global having contributed its Virgin Media business in the United Kingdom to VMED O2 UK Limited.

The corporate governance of VMED O2 UK Limited is regulated by a shareholders' agreement, which was entered into by the parties to the Contribution Agreement on June 1, 2021 (the "Shareholders' Agreement"). The Shareholders' Agreement provides that each of Telefónica and Liberty Global will designate four of the eight members of the Board of Directors of VMED O2 UK Limited, contains provisions regulating the management of VMED O2 UK Limited, the procedure to pass resolutions on certain reserved matters and distributions to shareholders, and customary non-solicitation, non-compete and information sharing provisions. Likewise, the Shareholders' Agreement provides that each of Telefónica or Liberty Global will have the right to initiate an initial public offering (IPO) of VMED O2 UK Limited after the third anniversary of the closing of the transaction, with the opportunity for the other shareholder to sell shares in the IPO on a pro rata basis. The Shareholders' Agreement also includes general restrictions on transfers of interests in VMED O2 UK Limited until the third anniversary of the closing of the transaction, subject to certain limited exceptions. After third anniversary of the closing of the transaction, any of the shareholders may send a notice to the other shareholder to initiate an IPO process as set forth in the Shareholders' Agreement, and after the fifth anniversary, each shareholder will be able to initiate a sale of VMED O2 UK Limited to a third party in accordance with certain drag procedures, subject to a right of first offer in favor of the other shareholder.

On the date of closing of the transaction, Telefónica, Liberty Global, and certain companies belonging to each shareholder's corporate group entered into certain services, reverse services, licensing and data protection agreements with VMED O2 UK Limited and certain entities belonging to the VMED O2 UK Limited group. In particular, Telefónica and Liberty Global agreed that each shareholder's group would provide certain services, either on a transitional or ongoing basis to VMED O2 UK Limited and its group and that, for a limited period of time, VMED O2 UK Limited would also provide certain reverse services to specific companies belonging to the corporate group of each of its shareholders.

Pursuant to the terms of the above referred services agreements, the transitional services that are to be provided by the Telefónica Group to VMED O2 UK Limited shall be provided for terms ranging from 7 to 24 months while the ongoing services that are to be provided by the Telefónica Group to VMED O2 UK Limited will be provided for periods of two to six years, depending on the service. The services provided by the Telefonica Group to VMED O2 UK Limited consist primarily of technology and telecommunication services that will be used by or will otherwise benefit VMED O2 UK Limited. In addition to providing VMED O2 UK Limited with such services, the mobile operators of the Telefonica Group and VMED O2 UK Limited will maintain their roaming commercial relationships in order to reciprocally provide roaming services for their respective customers.

Likewise, as of closing of the transaction Telefónica granted certain trademark license agreements to VMED O2 UK Limited (the "VMED O2 UK Limited Trademark Licenses"). Pursuant to the VMED O2 UK Limited Trademark Licenses, Telefonica Group licensed the use of Telefónica and O2 brand rights to VMED O2 UK Limited.

The foregoing description of the Contribution Agreement, the Shareholders' Agreement and the transaction does not purport to be complete and is qualified in its entirety by reference to the Contribution Agreement and Shareholders' Agreement, copies of which are filed as Exhibits 10.1 and 10.4, respectively hereto and which are incorporated herein by reference.

Purchase Agreement for Acquisition of UPI Mobile Assets of Oi Group

On January 28, 2021, Telefónica Brasil executed the Purchase and Sale Agreement of Shares and Other Covenants (the "Oi Agreement"), by and among Oi Móvel SA - In Judicial Recovery, as "Seller", Telefónica Brasil, Tim S.A. and Claro S.A., as "Buyers", and Oi S.A. - In Judicial Recovery and Telemar Norte Leste S.A. - In Judicial Recovery, as intervening parties and guarantors of the seller's obligations.

On April 20, 2022, the closing of the transaction related to the purchase agreement for the acquisition of the assets of Oi Group's mobile business operations (the "UPI Mobile Assets") took place, and Telefónica Brasil acquired, on such date, all the shares of Garliava RJ Infraestrutura e Redes de Telecomunicações S.A. (Garliava), a special purpose company, to which the mobile assets of Oi Group assigned to Telefónica Brasil had been contributed under the segregation plan stated in the Oi Agreement.

Telefónica Brasil thus acquired its share of mobile assets of the Oi Group for an amount of 5,373 million Brazilian reais (approximately 1,063 million euros at the exchange rate at such date), having paid, on such day, the amount of 4,885 million Brazilian reais (approximately 972 million euros). The remaining amount, equivalent to 10% of the payment made on that date, was withheld and its release is currently subject to certain ongoing discussions regarding price adjustments, as provided for in the Oi Agreement.

Likewise, on such date, Telefónica Brasil: (i) committed to an additional payment of 110 million Brazilian reais (approximately 23 million euros) of which 40 million Brazilian reais were paid at that date (approximately 8 million euros), subject to the fulfilment of certain targets by Oi; (ii) made a payment of approximately 148 million Brazilian reais (approximately 29 million euros) for certain transition services to be provided by Oi to Garliava; and (iii) entered into a take-or-pay data transmission capacity agreement, with a net present value of 179 million Brazilian reais (approximately 35 million euros), to be paid in monthly installments during a period of 10 years.

The mobile assets of Oi Group finally assigned to Telefónica Brasil were the following:

- a. Customers: approximately 12.5 million (equivalent to 30% of the total customer base of the mobile assets of Oi Group) – according to ANATEL's February 2022 data;
- b. Spectrum: 43MHz as national population-weighted average (46% of the radiofrequency of the mobile assets of Oi Group); and
- c. Infrastructure: contracts for the use of approximately 2.7 thousand sites of mobile access (corresponding to 19% of the sites of the mobile assets of Oi Group).

All commitments assumed were duly submitted to ANATEL and CADE during 2022.

On October 3, 2022, Telefónica Brasil initiated an arbitration procedure against Oi S.A. – In Judicial Recovery ("Seller"), pursuant to the terms of the Oi Agreement, alleging manifest breach by Seller of certain terms of the Oi Agreement, after the exchange of notices about the post-closing price adjustment between Buyers and Seller, upon the competent request of arbitration filed with the Market Arbitration Chamber.

On February 1, 2023, Telefónica Brasil's Extraordinary Shareholders' Meeting was held and Garliava's merger into Telefónica Brasil was approved, subject to prior approval from ANATEL and the conclusion of certain systemic operations. Once such conditions are fulfilled, Telefónica Brasil's Board of Directors will convene a new meeting to verify the accomplishment of such conditions and to give effects to said merger.

Investment Agreement with Allianz and Telefónica Germany

On October 29, 2020, Telefónica Infra Germany GmbH ("TEF Infra Germany", a subsidiary indirectly wholly-owned by Telefónica through Telefónica Infra, S.L.U.) entered into an investment agreement (and related contracts, including a partners' agreement which sets forth the principles of corporate governance of the joint venture) with several entities belonging to the Allianz Group ("Allianz") and Telefónica Germany 1. Beteiligungsgesellschaft mbH (a subsidiary wholly-owned by Telefónica Germany GmbH & Co. OHG) ("TEF Germany") for the creation of a joint venture to deploy Fiber-to-the-Home (FTTH) in Germany, pursuant to which TEF Infra Germany and TEF Germany conditionally agreed to invest up to 500 million euros equity in total (400 million euros by TEF Infra Germany and 100 million euros by TEF Germany) and Allianz conditionally agreed to invest up to 1,000 million euros through different sources of funding over a six year period.

The closing of the transaction and the acquisition of the joint control took place on December 18, 2020. The registration of Allianz and TEF Germany as limited partners of the joint venture in the German commercial registry occurred on January 21, 2021. After the closing of the transaction, the Allianz Group and the Telefónica Group each holds 50% in the joint venture under a co-control governance model. Telefónica Group's ownership is held through TEF Infra Germany holding 40% and TEF Germany holding a 10% stake.

Agreements for the sale by Telxius of its telecommunications towers' divisions in Europe and Latin America

On January 13, 2021, Telxius signed two agreements with American Tower International, Inc. (the "Purchaser"), a subsidiary of American Tower Corporation ("ATC"), for the sale of its telecommunications towers divisions in Europe (Spain and Germany) and in Latin America (Brazil, Peru, Chile and Argentina).

The total consideration for the transactions was 7.7 billion euros (including the Purchaser's assumption of certain future committed acquisitions), subject to certain closing adjustments.

The agreements established the sale of approximately 30,722 telecommunication tower sites through two separate and independent transactions.

Among others, the agreements included the Purchaser's commitment to maintain employment post-closing of the transactions and the continuity of the tower lease agreements entered into by Telefónica Group operators with the companies being sold. Renewal conditions do not include any new "all or nothing" clauses.

Additionally, the agreement included the transfer to the Purchaser of the towers that Telxius agreed to acquire from Telefónica Germany GmbH & Co. OHG under the agreement signed on June 8, 2020, including the towers acquired in the first phase on September 1, 2020 and the towers acquired in the second phase on August 2, 2021.

The sale of the telecommunications towers' division in Europe (Spain and Germany) closed on June 1, 2021 with Telxius receiving a payment of approximately 6.2 billion euros. In addition, on August 2, 2021 Telxius transferred to ATC, for a purchase price of 0.6 billion euros, the 4,080 sites acquired from Telefónica Germany GmbH & Co. OHG on the same date, in compliance with the second phase of the agreement signed on June 8, 2020.

The sale of the telecommunications towers' division in Latin America (Brazil, Peru, Chile and Argentina) closed on June 3, 2021 with Telxius receiving a payment of approximately 0.9 billion euros.

Sale by Telefónica Chile, S.A. of 60% of the shares of InfraCo, SpA

On February 22, 2021, Telefónica Chile, S.A. entered into a stock purchase agreement with KKR Alameda Aggregator L.P. (a vehicle controlled by funds managed or advised by KKR affiliated entities) for the sale of 60% of the shares of InfraCo, SpA.

As part of the transaction, Telefónica Chile sold approximately 2,000,000 homes passed with fiber to InfraCo, SpA. Additionally, Telefónica Chile and InfraCo, SpA entered into certain agreements for the provision of various services, including an agreement to provide wholesale connectivity services to Telefónica Chile on InfraCo, SpA's fiber network.

After obtaining the corresponding authorizations, the transaction was closed on July 1, 2021. The transaction values InfraCo, SpA. at 1.0 billion dollars (approximately 0.8 billion euros at the exchange rate as of such date).

Agreement for the acquisition of Cancom Ltd

On July 28, 2021, Telefónica Cybersecurity & Cloud Tech, S.L.U. ("Telefónica Tech") signed an agreement with Cancom Group for the purchase of 100% of the shares of the British company Cancom, Ltd, a company that provides advanced end to end cloud and cybersecurity services to B2B clients (including public organizations and private entities) in the United Kingdom and Ireland, for an amount (enterprise value) of 340 million pounds sterling (approximately 398 million euros as of such date).

The transaction closed on August 4, 2021, and Cancom, Ltd and its subsidiaries were integrated into the Telefónica Group as part of Telefónica Tech.

On October 4, 2021, Cancom, Ltd changed its name to Telefónica Tech UK and Ireland, Ltd.

Agreement for the acquisition of Incremental Group

On March 21, 2022, Telefónica Tech UK & Ireland, Ltd. ("T. Tech UK") signed an agreement for the acquisition of 100% of the shares of the Scottish company Perpetual TopCo Limited, the holding company of a group of companies ("Incremental Group") focused in the provision of advanced IT services (including business applications and data analytics) in the United Kingdom for up to GBP 175 million (approximately 209 million euros as of such date) (including certain potential deferred payments -earn-outs-).

The transaction was signed and closed simultaneously and has contributed to T. Tech UK's growth in the United Kingdom's IT market.

Agreement for the acquisition of BE-terna Group

On May 8, 2022, Telefónica Cybersecurity & Cloud Tech, S.L.U. ("Telefónica Tech") signed an agreement for the acquisition of 100% of the shares of the German company BE-terna Acceleration Holding GmbH, the holding company of a group of companies ("BE-terna Group") focused in the provision of advanced IT services (including business applications and data analytics) in Germany, Austria, Switzerland, The Netherlands, Denmark, Norway, Sweden, Slovenia, Serbia and Croatia for up to 350 million euros (including a potential deferred payment -earn-out-).

After approval of the transaction by the German antitrust authority, the transaction closed on June 9, 2022.

Agreement reached between Telefónica España Filiales, S.A.U. ("Telefónica España Filiales"), T. Infra, Vauban and Crédit Agricole Assurances for the establishment of Bluevia Fibra

On July 25, 2022, Telefónica España Filiales S.A.U, Telefónica Infra S.L.U. (T. Infra) and the consortium formed by Vauban Infrastructure Partners ("Vauban") and Crédit Agricole Assurances ("CAA") reached an agreement for the establishment of a company, Bluevia Fibra, S.L. ("Bluevia"), whose corporate purpose is the deployment and commercialization of a fiber-to-the-home (FTTH) network mainly in rural areas in Spain.

Once the relevant regulatory authorizations were obtained, the closing of the transaction took place on December 20, 2022. After closing, the Telefónica Group holds 55% of the capital of Bluevia (30% through Telefónica España Filiales and 25% through T. Infra), with Vauban/CAA holding the remaining 45%. At closing, Bluevia purchased from Telefónica España 3.9 million already passed real estate units, and agreed to deploy 1.1 million additional units over the next 2 years, reaching a total footprint of 5 million passed real estate units. The 3.9 million already passed real estate units acquired by Bluevia represent 14% of Telefónica's FTTH network in Spain, with Telefónica España retaining ownership of the remainder of the network. In addition, as part of the transaction, the Telefónica Group has entered into a series of service provision agreements with Bluevia which entail the mutual provision and receipt of services by/to Telefonica Group and Bluevia. As part of the transaction Telefonica Group has contributed equity funds to Bluevia in the amount of approximately 1,247 million euros and the Vauban/CAA consortium has acquired 45% of Bluevia from Telefónica España for 1,021 million euros in cash (see Note 2 to the Consolidated Financial Statements).

Agreement reached by T. Infra, Liberty Global and InfraVia for the establishment of a fiber-to-the-home (FTTH) joint venture in the United Kingdom

On July 29, 2022, T. Infra, Liberty Global plc ("Liberty Global") and InfraVia Capital Partners ("InfraVia") reached an agreement for the establishment of a joint venture, "nexfibre", for the deployment of fiber-to-the-home (FTTH) to 5 million homes in the United Kingdom not reached by VMO2's network, with potential for expansion to an additional 2 million homes. The fiber network will offer wholesale FTTH access to telecommunications service providers, with VMO2 acting as the lead customer, as well as providing a range of technical services.

Once the relevant regulatory authorizations were obtained and the other conditions were fulfilled, the closing of the transaction took place on December 15, 2022. After closing, Liberty Global and T. Infra participate by halves in a joint vehicle that holds a 50% interest in nexfibre, with InfraVia owning the remaining 50%.

The business plan for the initial rollout to 5 million homes envisages an investment of approximately 4,500 million pounds (approximately 5,072 million euros at the exchange rate at December 31, 2022). The three partners have funded their pro-rata share of equity funding for the construction, totaling up to 1,400 million pounds (approximately 1,578 million euros at the exchange rate at December 31, 2022). In addition, nexfibre has entered into a facilities agreement with a consortium of banks for an amount of up to 3,300 million pounds (approximately 3,719 million euros at the exchange rate at December 31, 2022). As part of the transaction, InfraVia has made and will continue to make certain payments to Liberty Global and T. Infra, a portion of which will be linked to the progress of the construction of the network.

D. Exchange Controls

Exchange Controls and Other Limitations Affecting Security Holders

Ownership limitations

There are no limitations with respect to the ownership of our assets or share capital except those derived from the application of the reciprocity principle as described above.

Trading by us in our own shares or shares of companies under our control

For information on the requirements applicable to the trading by us in our own shares or shares of companies under our control, see “—Memorandum and Articles of Association- Description of Our Capital Stock—Acquisition of own shares” above.

Other restrictions on acquisitions of shares

For information on reporting requirements and other restrictions applicable to the acquisition of our shares see “—Memorandum and Articles of Association—Description of Our Capital Stock-Reporting requirements” and “—Trading by us in our own shares or shares of companies under our control” above and "Item 9. The Offering and Listing-Offer and Listing Details-Restrictions on foreign investment".

Dividend and Liquidation Rights

According to Spanish law and our bylaws, dividends may only be paid out of profits or distributable reserves if the value of our net worth is not, and as a result of such distribution would not be, less than our capital stock. Pursuant to Spanish law, we are required to reserve 10% of our fiscal year net income until the amount in our legal reserve reaches 20% of our capital. Our legal reserve is currently at 20%.

Dividends payable by us to non-residents of Spain ordinarily are subject to a Spanish withholding tax. For the tax implications of dividends to U.S. Holders (as defined below), see “—Taxation.”

Upon our liquidation, our shareholders would be entitled to receive pro rata any assets remaining after the payment of our debts and taxes and expenses of such liquidation. Any change in the rights of shareholders to receive dividends and payment upon liquidation would require an amendment to our bylaws by resolution adopted by a general meeting of shareholders. If there were more than one class of shares, such amendment would also require the approval of each class of shareholders affected by the amendment.

Preemptive Rights and Increases of Share Capital

Pursuant to the Spanish Corporations Law, shareholders have preemptive rights to subscribe for any new shares and for bonds convertible into shares. Such rights may not be available under special circumstances if waived by a resolution passed at a general meeting of shareholders in accordance with Article 308 of the Spanish Corporations Law, or the Board of Directors, if authorized (Article 506 of the Spanish Corporation Act). Further, such rights, in any event, will not be available in the event of an increase in capital to meet the requirements of a convertible bond issue or a merger in which shares are issued as consideration. Such rights:

- are transferable;
- may be traded on the Automated Quotation System; and
- may be of value to existing shareholders because new shares may be offered for subscription at prices lower than prevailing market prices.

Absent an exemption from registration, shares issuable upon exercise of rights must be registered under the Securities Act in order to be offered to holders of ADSs. If we decided not to register the shares, the rights would not be distributed to holders of ADSs. Pursuant to the Deposit Agreement, however, holders of ADSs are entitled to receive their proportionate share of the proceeds, if any, from sale by the Depositary of any rights accruing to holders of ADSs.

E. Taxation

The following is a general summary of the material Spanish and U.S. federal income tax consequences to U.S. Holders described below of the ownership and disposition of shares or ADSs. This summary is based upon Spanish and U.S. tax laws (including the U.S. Internal Revenue Code of 1986, as amended (the “**Code**”), final, temporary and proposed U.S. Treasury regulations, rulings, judicial decisions and administrative pronouncements), and the Convention Between the United States of America and the Kingdom of Spain for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, signed on February 22, 1990, along with the related Protocol (the “**Treaty**”), all as of the date hereof and all of which are subject to change or changes in interpretation, possibly with retroactive effect.

As used herein, the term “U.S. Holder” means a beneficial owner of one or more shares or ADSs:

- that is, for U.S. federal income tax purposes, one of the following:
 - (a) a citizen or individual resident of the United States;
 - (b) a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States or any state therein or the District of Columbia; or
 - (c) an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source;
- who is entitled to the benefits of the Treaty;
- who holds the shares or ADSs as capital assets for U.S. federal income tax purposes;
- who owns, directly, indirectly or by attribution, less than 10% of the share capital or voting stock of Telefónica; and
- whose holding is not attributable to a fixed base or permanent establishment in Spain.

This summary does not address all of the tax considerations, including the potential application of the provisions of the Code known as the Medicare contribution tax, that may apply to holders that are subject to special tax rules, such as certain U.S. expatriates, insurance companies, tax-exempt organizations, certain financial institutions, persons subject to the alternative minimum tax, dealers and certain traders in securities, persons holding shares or ADSs as part of a straddle, hedging, conversion or integrated transaction, persons who acquired their shares or ADSs pursuant to the exercise of employee stock options or otherwise as compensation, persons owning shares or ADSs in connection with a trade or business outside of the U.S., partnerships or other entities classified as partnerships for U.S. federal income tax purposes or persons whose functional currency is not the U.S. dollar. Such holders may be subject to U.S. federal income tax consequences different from those set forth below.

If a partnership holds shares or ADSs, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. A partner in a partnership that holds shares or ADSs is urged to consult its own tax advisor regarding the specific tax consequences of owning and disposing of the shares or ADSs.

For purposes of the Treaty and U.S. federal income tax, U.S. Holders of ADSs will generally be treated as owners of the underlying shares represented by such ADSs. Accordingly, no gain or loss will be recognized if a U.S. Holder exchanges ADSs for the underlying shares represented by those ADSs.

This discussion assumes that Telefónica is not, and will not become, a passive foreign investment company (“**PFIC**”), as discussed below under “—U.S. Federal Income Tax Considerations—Passive foreign investment company rules.”

U.S. Holders of shares or ADSs should consult their own tax advisors concerning the specific Spanish and U.S. federal, state and local tax consequences of the ownership and disposition of shares or ADSs in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction. In particular, U.S. Holders are urged to consult their own tax advisors concerning their eligibility for benefits under the Treaty and concerning the U.S. tax implications of the Spanish Wealth Tax and the Spanish FTT, as defined below.

Spanish Tax Considerations

Taxation of dividends

Under Spanish law, dividends paid by Telefónica to U.S. Holders of ordinary shares or ADSs are subject to Spanish Non-Resident Income Tax, withheld at source, at a rate of 19%. For these purposes, upon distribution of the dividend, Telefónica or its paying agent will withhold an amount equal to the tax due according to the rules set forth above.

However, under the Treaty, if you are a U.S. Holder, you are entitled to a reduced withholding tax rate of 15%.

To benefit from the Treaty-reduced rate of 15%, you must provide to Telefónica through its paying agent in Spain, before the tenth day following the end of the month in which the dividends were payable, a certificate from the U.S. Internal Revenue Service (“**IRS**”) stating that, to the best knowledge of the IRS, such U.S. Holders are residents of the United States within the meaning of the Treaty and entitled to its benefits.

If this certificate is not provided within this period, you may afterwards apply for a refund of the amount withheld in excess of the rate provided for in the Treaty by following the procedures described in the next section.

Spanish Refund Procedure

According to Spanish Regulations on Non-Resident Income Tax, approved by Royal Decree 1776/2004 dated July 30, 2004, as amended, a refund for the amount withheld in excess of the Treaty-reduced rate can be obtained from the relevant Spanish tax authorities. To pursue the refund claim, if you are a U.S. Holder, you are required to file:

- the corresponding Spanish tax form;
- the certificate referred to in the preceding section; and
- evidence of the Spanish Non-Resident Income Tax that was withheld with respect to you.

The refund claim may be filed as from February 1 of the calendar year following the year in which the relevant payment date takes place and within four years from the date in which the withheld tax was collected by the Spanish tax authorities.

U.S. Holders are urged to consult their own tax advisors regarding refund procedures and any U.S. tax implications thereof.

Taxation of capital gains

For Spanish tax purposes, income obtained from the sale of shares or ADSs of Telefónica will be treated as capital gains. Spanish non-resident income tax is levied at a rate of 19% on capital gains obtained by persons not residing in Spain for tax purposes who are not entitled to the benefit of any applicable treaty for the avoidance of double taxation.

Notwithstanding the above, capital gains derived from the transfer of shares on an official Spanish secondary stock market by any holder who is resident in a country that has entered into a treaty for the avoidance of double taxation with an “exchange of information” clause (the Treaty contains such a clause) will be exempt from taxation in Spain. If you are a U.S. Holder, under the Treaty capital gains arising from the disposition of shares or ADSs will not be taxed in Spain. You will be required to establish that you are entitled to the exemption from tax under the Treaty by providing to the relevant Spanish tax authorities a certificate of residence issued by the IRS stating that to the best knowledge of the IRS, you are a U.S. resident within the meaning of the Treaty.

Spanish wealth tax

Individual U.S. Holders who hold shares or ADSs located in Spain are subject to the Spanish Wealth Tax (Impuesto sobre el Patrimonio) (Spanish Law 19/1991), which imposes tax on property located in Spain on the last day of any year.

In addition, the Solidarity Wealth Tax For High-Net-Worth Individuals entered into force as of December 29, 2022 (therefore, for the first year, assets held at December 31, 2022 will be subject to taxation). It is designed as a direct and personal tax that complements the Spanish Wealth Tax. The tax would be in principle temporary and will remain in force for two fiscal years. It is consistent with the provisions of the Spanish Wealth Tax in most essential aspects (exemptions, taxable and net taxable bases, tax rates, limit on amount of tax payable, etc.).

Inheritance and gift tax

Transfers of shares or ADSs on death and by gift to individuals are subject to Spanish inheritance and gift taxes (Impuesto sobre Sucesiones y Donaciones), respectively, if the transferee is a resident of Spain for tax purposes, or if the shares or ADSs are located in Spain at the time of death, regardless of the residence of the heir or beneficiary. In this regard, the Spanish tax authorities may determine that all shares of Spanish corporations and all ADSs representing such shares are located in Spain for Spanish tax purposes. The applicable tax rate, after applying relevant personal, family and wealth factors, generally ranges between 7.65% and 81.6% for individuals.

Gifts granted to corporations that are not resident in Spain are subject to Spanish Non-Resident Income Tax at a rate of 19% on the fair market value of the shares as a capital gain. If the donee is a United States resident corporation, the exclusions available under the Treaty described in the section “—Taxation of Capital Gains” above will be applicable.

Expenses of Transfer

Transfers of shares or ADSs will be exempt from any transfer tax (Impuesto sobre Transmisiones Patrimoniales) or value added tax. Additionally, no stamp tax will be levied on such transfers.

The transfer of shares or ADSs may be subject to the Spanish Financial Transaction tax (the “Spanish FTT”). The Spanish law which implements the Spanish FTT was approved on October 7, 2020 (the “FTT Law”) and the FTT Law was published in the Spanish Official Gazette (Boletín Oficial del Estado) on October 16, 2020. The Spanish FTT came into force three months after the publication of the FTT Law in the Spanish Official Gazette (i.e., on January 16, 2021).

The Spanish FTT will charge a 0.2% rate on specific acquisitions of listed shares issued by Spanish companies (including ADSs) whose market capitalization exceeds 1 billion euros (€1,000,000,000) (this may be the case of Telefónica), regardless of the jurisdiction of residence of the parties involved in the transaction.

Transactions in the primary market (such as a capital increase) are exempt from the Spanish FTT. However, the Spanish FTT will subject other transactions involving the acquisition of the shares or ADSs depending on the market capitalization of Telefónica. Prospective investors are advised to seek their own professional advice in relation to the Spanish FTT.

U.S. Federal Income Tax Considerations

Taxation of dividends

Distributions received by a U.S. Holder on shares or ADSs, including the amount of any Spanish taxes withheld therefrom, other than certain pro rata distributions of shares to all shareholders (including ADS holders), will constitute foreign-source dividend income to the extent paid out of Telefónica’s current or accumulated earnings and profits (as determined for U.S. federal income tax purposes). Because Telefónica does not maintain calculations of its earnings and profits under U.S. federal income tax principles, it is expected that distributions generally will be reported to U.S. Holders as dividends. The amount of dividend income paid in euros that a U.S. Holder will be required to include in income will equal the U.S. dollar value of the distributed euros, calculated by reference to the exchange rate in effect on the date the payment is received by the Depository (in the case of ADSs) or by the U.S. Holder (in the case of shares), regardless of whether the payment is converted into U.S. dollars on the date of receipt. If the dividend is converted into U.S. dollars on the date of receipt, a U.S. Holder will generally not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of its receipt. Gain or loss that a U.S. Holder realizes on a sale or other disposition of euros will be U.S.-source ordinary income or loss. Corporate U.S. Holders will not be entitled to claim the dividends-received deduction with respect to dividends paid by Telefónica. Subject to applicable limitations, dividends received by certain non-corporate U.S. Holders will be taxable at rates applicable to long-term capital gains. Non-corporate U.S. Holders should consult their own tax advisors to determine whether they are subject to any special rules that limit their ability to be taxed at these favorable rates.

Spanish income taxes withheld from dividends on shares or ADSs at a rate not exceeding the rate provided in the Treaty will be creditable against a U.S. Holder’s U.S. federal income tax liability, subject to applicable restrictions and limitations that may vary depending upon the U.S. Holder’s circumstances. Spanish taxes withheld in excess of the rate applicable under the Treaty will not be eligible for credit against a U.S. Holder’s federal income tax liability. See “Spanish Tax Considerations—Taxation of dividends” above for a discussion of how to obtain the applicable Treaty rate. Instead of claiming a credit, a U.S. Holder may elect to deduct foreign taxes (including the Spanish

taxes) in computing its taxable income, subject to generally applicable limitations. An election to deduct foreign taxes (instead of claiming foreign tax credits) applies to all taxes paid or accrued in the taxable year to foreign countries and possessions of the United States. The limitations on foreign taxes eligible for credit are calculated separately with respect to specific classes of income. The rules governing foreign tax credits are complex. Therefore, U.S. Holders should consult their own tax advisors regarding the availability of foreign tax credits in their particular circumstances.

Taxation upon sale or other disposition of shares or ADSs

A U.S. Holder will generally recognize U.S. source capital gain or loss on the sale or other disposition of shares or ADSs. Any such gain or loss will be long-term capital gain or loss if the U.S. Holder has held such shares or ADSs for more than one year. The amount of the U.S. Holder's gain or loss will be equal to the difference between such U.S. Holder's tax basis in the shares or ADSs sold or otherwise disposed of and the amount realized on the sale or other disposition, as determined in U.S. dollars.

As discussed under "Spanish Tax Considerations—Taxation of capital gains" above, gain realized by a U.S. Holder on the sale or other disposition of shares or ADSs will be exempt from Spanish tax on capital gains under the Treaty. If a U.S. Holder is eligible for the exemption from Spanish tax on capital gains but does not follow appropriate procedures for obtaining the exemption, such holder will not be entitled to credit the amount of Spanish tax on capital gains paid against its U.S. federal income tax liability. U.S. Holders should consult their own tax advisors regarding the potential Spanish tax consequences of a sale or other disposition of shares or ADSs and the procedures available for an exemption from such tax.

Passive foreign investment company rules

Telefónica believes that it was not a PFIC for U.S. federal income tax purposes for its 2022 taxable year. However, because PFIC status depends upon the composition of a company's income and assets and the market value of its assets (including, among others, less than 25% owned equity investments) from time to time, there can be no assurance that Telefónica will not be considered a PFIC for any taxable year. If Telefónica were treated as a PFIC for any taxable year during which a U.S. Holder owned a share or ADS, certain adverse tax consequences could apply to the U.S. Holder.

In general, if Telefónica were treated as a PFIC for any taxable year during which a U.S. Holder owned a share or ADS, gain recognized by a U.S. Holder on a sale or other disposition of such share or ADS would be allocated ratably over the U.S. Holder's holding period for the share or ADS. The amounts allocated to the taxable year of the sale or other disposition and to any year before Telefónica became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, and an interest charge would be imposed on the resulting tax liability. The same treatment would apply to any distribution in respect of shares or ADSs to the extent it exceeds 125% of the average of the annual distributions on shares or ADSs received by the U.S. Holder during the preceding three years or the U.S. Holder's holding period, whichever is shorter. Certain elections may be available that would result in alternative treatments (such as mark-to-market treatment) of the shares or ADSs.

In addition, if Telefónica were treated as a PFIC in a taxable year in which it pays a dividend or in the prior taxable year, the favorable dividend rates discussed above with respect to dividends paid to certain non-corporate U.S. Holders would not apply.

If Telefónica were a PFIC for any taxable year during which a U.S. Holder owned our shares or ADSs, the U.S. Holder will generally be required to file IRS Form 8621 with its annual U.S. federal income tax return.

Information reporting and backup withholding

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting and may be subject to backup withholding unless the U.S. Holder is a corporation or other exempt recipient or, in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle such U.S. Holder to a refund, provided that the required information is timely furnished to the IRS.

Certain U.S. Holders who are individuals and certain specified entities may be required to report information relating to stock of a non-U.S. person, subject to certain exceptions (including an exception for stock held through a U.S. financial institution). U.S. Holders are urged to consult their tax advisors regarding the application, if any, of this legislation to their ownership of shares or ADSs.

F. Dividends and Paying Agents

Not Applicable.

G. Statements by Experts

Not Applicable.

H. Documents on Display

Where You Can Find More Information

We file Annual Reports on Form 20-F and furnish periodic reports on Form 6-K to the SEC. You may read and copy any of these reports at the SEC's public reference room in Washington, D.C. Please call the SEC at 1-800-SEC-0330 for further information. Our SEC filings are also available to the public from commercial document retrieval services. Some of our SEC filings are also available at the website maintained by the SEC at "<http://www.sec.gov>." Except as otherwise expressly indicated herein, any such information does not form part of this annual report on Form 20-F.

Our ADSs are listed on the New York Stock Exchange under the symbol "TEF." You may inspect any periodic reports and other information filed with or furnished to the SEC by us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

As a foreign private issuer, we are exempt from the rules under the Exchange Act which prescribe the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act.

We are subject to the informational requirements of the Spanish securities commission and the Spanish Stock Exchanges, and we file reports and other information relating to our business, financial condition and other matters with the Spanish securities commission and the Spanish Stock Exchanges. You may read such reports, statements and other information, including the annual and biannual financial statements, at the public reference facilities maintained in Madrid and Barcelona. Some of our Spanish securities commission filings are also available at the website maintained by the CNMV at <http://www.cnmv.es>.

We have appointed Citibank, N.A. to act as Depositary for the Telefónica ADSs. Citibank will, as provided in the Deposit Agreement, arrange for the mailing of summaries in English of such reports and communications to all record holders of the ADSs of Telefónica. Any record holder of Telefónica ADSs may read such reports and communications or summaries thereof at Citibank's office located at 388 Greenwich Street, 6th Floor, New York, New York 10013.

I. Subsidiary Information

Not applicable.

Item 11. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to various financial market risks as a result of: (i) our ordinary business activity, (ii) debt incurred to finance our business, (iii) our investments in companies, and (iv) other financial instruments related to the above commitments.

The main market risks affecting Group companies are as follows:

- **Exchange rate risk:** arises primarily from: (i) Telefónica's international presence, through its investments and businesses in countries that use currencies other than the euro (primarily in Latin America, but also in the United Kingdom), (ii) debt denominated in currencies other than that of the country where the business is conducted or the home country of the company incurring such debt, and (iii) for those trade receivables or payables in foreign currency related to the company with the transaction registered.

- **Interest rate risk:** arises primarily in connection with changes in interest rates affecting: (i) financial expenses on floating-rate debt (or short-term debt likely to be renewed), (ii) the value of long-term liabilities at fixed interest rates and (iii) financial expenses and principal payments of inflation-linked financial instruments, considering interest rate risk as the impact of changes in inflation rates.

- **Share price risk:** arises primarily from changes in the value of the equity investments (that may be bought, sold or otherwise involved in transactions), from changes in the value of derivatives associated with such investments, from changes in the value of treasury shares and from changes in the value of equity derivatives.

- **Liquidity risk:** arises due to a mismatch between financing needs (including operating and financial expenses, investment, debt redemptions and dividend commitments) and sources of finance (including revenues, divestments, credit lines from financial institutions and capital market transactions). The cost of finance could also be affected by movements in the credit spreads (over benchmark rates) demanded by lenders.

- **Country risk:** refers to the possible decline in the value of assets, cash flows generated or cash flows returned to the Parent company as a result of political, economic or social instability in the countries where the Telefónica Group operates, especially in Latin America.

- **Credit risk:** appears when a counterparty fails to meet or delays its payment obligations in accordance with the agreed terms, driving an impairment in an asset due to: (i) solvency issues, or (ii) no intention to pay.

We seek to actively manage these risks through the use of derivatives (primarily on exchange rates, interest rates and share prices) and by incurring debt in local currencies, where appropriate, with a view to stabilizing cash flows, our income statement and, to a lesser extent, part of the value of our investments. In this way, we attempt to protect our solvency, facilitate financial planning and take advantage of investment opportunities.

We manage our exchange rate risk and interest rate risk in terms of net financial debt and net financial debt plus commitments as calculated by us. We believe that these parameters are more appropriate to understanding our debt position. Net financial debt and net financial debt plus commitments take into account the impact of our cash balance and cash equivalents including derivatives positions with a positive value linked to liabilities. Neither net financial debt nor net financial debt plus commitments as calculated by us should be considered as a substitute for gross financial debt (the sum of current and non-current interest-bearing debt) as a measure of our leverage. For a more detailed description on reconciliation of net debt and net financial debt to gross financial debt, see “Item 5. Operating and Financial Review and Prospects—Non-GAAP financial information—Net financial debt, net financial debt plus leases, net financial debt plus commitments and net financial debt plus leases plus commitments.”

For a more detailed description on quantitative and qualitative disclosures about market risks see Note 19 to our Consolidated Financial Statements.

Item 12. Description of Securities Other Than Equity Securities

D. American Depositary Shares

The Depositary of our ADR program is Citibank, N.A., and the address of its principal executive office is 388 Greenwich Street, New York, New York 10013.

Our ADSs are listed on the New York Stock Exchange under the symbol “TEF.” Each ADS represents the right to receive one ordinary share of capital stock of 1.00 euros nominal value each, of Telefónica, S.A. The Depositary issues ADSs in the form of certificated ADSs (also known as American Depositary Receipts, or ADRs) or uncertificated ADSs pursuant to the Deposit Agreement.

Under the terms of the Deposit Agreement, as of the date of this Annual Report, an ADS holder may have to pay to the Depositary the services fees specified in the table below:

Category	Depository Actions	Associated Fee / Paid By Whom
(a) Depositing or substituting the underlying shares	Issuance of ADSs upon the deposit of shares	Up to 5.00 dollars for each 100 ADSs (or portion thereof) evidenced by the new ADSs delivered (charged to person depositing the shares or receiving the ADSs)(1)
(b) Receiving or distributing dividends	Distribution of cash dividends or other cash distributions; distribution of share dividends or other free share distributions; distribution of securities other than ADSs or rights to purchase additional ADSs	Up to 5.00 dollars for each 100 ADSs (or portion thereof) held (in the case of cash distributions, deducted from the relevant distribution; in the case of all other distributions, billed to the relevant holder)(2)
(c) Selling or exercising rights	Distribution or sale of securities	Up to 5.00 dollars for each 100 ADSs (or portion thereof) held (billed to the relevant holder)
(d) Withdrawing an underlying security	Acceptance of ADSs surrendered for withdrawal of deposited securities	Up to 5.00 dollars for each 100 ADSs (or portion thereof) evidenced by the ADSs surrendered (charged to person surrendering or to person to whom withdrawn securities are being delivered) ⁽¹⁾
(e) Transferring, splitting or grouping receipts	Transfers	Up to 1.50 dollars per ADS so presented (charged to person presenting certificate for transfer)
(f) General depository services, particularly those charged on an annual basis	Other services performed by the Depository in administering the ADSs	Up to 5.00 dollars for each 100 ADSs (or portion thereof) held on the applicable record date (billed to person holding ADSs on applicable record date established by the Depository) ⁽²⁾

(g) Expenses of the Depositary	Certain fees and expenses incurred by the depositary bank and certain taxes and governmental charges in connection with: <ul style="list-style-type: none">· compliance with foreign exchange control regulations or any law or regulation relating to foreign investment;· the Depositary or its custodian's compliance with applicable law, rule or regulation;· stock transfer or other taxes and other governmental charges;· cable, telex, facsimile transmission/delivery;· expenses of the Depositary in connection with the conversion of foreign currency into U.S. dollars (which are paid out of such foreign currency);· any other charge payable by Depositary or its agents.	Expenses payable at the sole discretion of the Depositary (billed or deducted from cash distributions to person holding ADSs on applicable record date established by the Depositary)
--------------------------------	---	---

⁽¹⁾ In the case of ADSs issued by the Depositary into DTC or presented to the Depositary via DTC, the ADS issuance and cancellation fees will be payable to the Depositary by DTC Participant(s) receiving the ADSs from the Depositary or the DTC Participant(s) surrendering the ADSs to the Depositary for cancellation, as the case may be, on behalf of the beneficial owner(s) and will be charged by the DTC Participant(s) to the account(s) of the applicable beneficial owner(s) in accordance with the procedures and practices of the DTC participant(s) as in effect at the time.

⁽²⁾ For ADSs held through DTC, the Depositary fees for distributions other than cash and the Depositary service fee are charged by the Depositary to the DTC Participants in accordance with the procedures and practices prescribed by DTC from time to time and the DTC Participants in turn charge the amount of such fees to the beneficial owners for whom they hold ADSs.

The Depositary has agreed to reimburse or pay on behalf of Telefónica, S.A., certain reasonable expenses related to our ADS program and incurred by Telefónica, S.A. in connection with the program (such as NYSE listing fees, legal and accounting fees incurred in connection with the preparation of Form 20-F and ongoing SEC compliance and listing requirements, distribution of proxy materials, investor relations expenses, etc.). The Depositary has covered all such expenses incurred by Telefónica, S.A. during 2022 for an amount of 4.1 million dollars (equivalent to 3.8 million euros, approximately). The amounts the Depositary reimbursed or paid are not perforce related to the fees collected by the depositary from ADS holders.

As part of its service to Telefónica, S.A., the Depositary has agreed to waive certain expenses for the standard costs associated with the administration of our ADS program for the year ended December 31, 2022.

Part II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not applicable.

Item 15. Controls and Procedures

Management’s Evaluation over Disclosure Controls and Procedures

Our Chief Executive Officer and our Chief Financial and Control Officer, after evaluating the effectiveness of Telefónica’s disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this Form 20-F, have concluded that, as of such date, our disclosure controls and procedures were effective.

There are, as described below, inherent limitations to the effectiveness of any internal control system, including disclosure controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Management’s Annual Report on Internal Control over Financial Reporting

The management of Telefónica is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Telefónica’s internal control over financial reporting is designed to provide reasonable assurance as to the reliability of financial reporting and the preparation of consolidated financial statements for external purposes, in accordance with generally accepted accounting principles. For Telefónica, generally accepted accounting principles refer to International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

Telefónica’s internal control over financial reporting includes those policies and procedures that:

- (1) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- (2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Telefónica Group are being made only in accordance with authorizations of management and directors; and
- (3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of Telefónica’s assets that could have a material effect on the consolidated financial statements.

Any internal control system, no matter how well designed, has inherent limitations, including the possibility of human error and the circumvention or overriding of controls and procedures, which may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness for future periods are subject to the risk that controls may become inadequate because of changes in conditions or because the degree of compliance with the policies or procedures may deteriorate.

Telefónica’s management assessed the effectiveness of Telefónica’s internal control over financial reporting as of December 31, 2022. In making this assessment, it used the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Telefónica’s management has excluded from the scope of its assessment of internal control over financial reporting the operations and related assets of Garliava RJ Infraestrutura e Redes de Telecomunicações S.A., Perpetual TopCo Limited and affiliates, and BE-terna Acceleration Holding GmbH and affiliates (the “acquired companies”), which Telefónica acquired in purchase business combinations on April 20, 2022, March 21, 2022, and June 9, 2022, respectively. Total assets and total revenues subject to the acquired companies’ internal control over financial

reporting represented 0.3% and 0.8% in the aggregate, of Telefónica's consolidated total assets and total revenues as of and for the year ended December 31, 2022, respectively. Based on the assessment performed and those criteria, Telefónica's management concluded that as of December 31, 2022, Telefónica's internal control over financial reporting was effective.

Report of the Independent Registered Public Accounting Firm

PricewaterhouseCoopers Auditores, S.L., an independent registered public accounting firm (PCAOB ID 1306), has issued a report both on the consolidated financial statements as of and for the year ended December 31, 2022 and on the effectiveness of Telefónica's internal control over financial reporting under auditing standards of the Public Company Accounting Oversight Board (United States). The report is included on page F-2.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) or 15d-15(d) under the Exchange Act that occurred during the period covered by this Annual Report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16. [Reserved]

Item 16A. Audit Committee Financial Expert

Our Board of Directors has determined that all the members of the Audit and Control Committee (i.e., Mr. Peter Löscher (Chairman), Mr. José Javier Echenique Landiribar, Ms. Carmen García de Andrés and Ms. María Rotondo Urcola) meet the requirements of an "audit committee financial expert" as such term is defined by the SEC.

Item 16B. Code of Ethics

Telefónica is governed by a code of business conduct and ethics called the Telefónica's Responsible Business Principles. The Responsible Business Principles are binding on all employees globally, including senior officers, in their daily operations and on the Company in its relations with its stakeholders. All employees have an obligation to complete the Responsible Business Principles Course once every two years. In 2022, 89% of Telefónica's workforce completed the Responsible Business Principles Course.

The standards set forth in the Telefónica's Responsible Business Principles cover ethical issues such as honesty and trust, respect for the law, integrity and the respect of human rights and digital rights, transparency of information, fiscal transparency, fair competition, political neutrality, as well as how these ethical principles should be implemented in our relationships with our stakeholders: employees, customers, shareholders, suppliers and the communities we work in. Issues covered, amongst other, are professional development, diversity, labor rights, compensation, health and safety, communications and advertising, corporate governance, innovation, development and responsible use of technology, risk management, protection to shareholders, anti-corruption, conflicts of interest, environmental protection, privacy and data protection, commitment to the societies in which operate and responsible management of the supply chain, etc.

Telefónica's Responsible Business Principles are available and open to consultation for employees on the Telefónica Intranet site as well as for the general public on the Telefónica external website (<https://www.telefonica.com/en/commitment/how-we-work/business-principles/>).

For more information, please see "Item 16G. Corporate Governance—Code of Ethics".

Item 16C. Principal Accountant Fees and Services

Please see Note 29.e to our Consolidated Financial Statements.

The Audit and Control Committee's Pre-Approval Policies and Procedures

The engagement of any service rendered by our external auditor or any of its affiliates must always have the prior approval of our Audit and Control Committee. Such Committee has developed a Pre-approval Policy regarding

the engagement of professional services by our external auditor, in accordance with the Spanish Audit Law and the Sarbanes-Oxley Act. This Policy establishes the obligation to obtain prior approval from our Audit and Control Committee for any service to be rendered by our external auditor to Telefónica or any of its subsidiaries.

This Policy sets forth restrictions on engaging our external auditor for the performance of non-audit services, according to which the engagement of our external auditor for the provision of such services is only permitted when there is no other firm available to provide the needed services at a comparable cost and with a similar level of quality. Moreover, this Policy prohibits the engagement of our external auditor for the provision of certain type of services that would be considered as “prohibited services”.

In addition, the Audit and Control Committee oversees the total amount of fees paid to our external auditor for the provision of non-audit services in order to assure that such fees do not exceed a certain percentage of the total amount of fees paid for the provision of audit services.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

At December 31, 2022, we held 85,217,621 shares of treasury stock, representing 1.476% of our capital stock. At December 31, 2021, we held 139,329,370 shares of treasury stock, representing 2.411% of our capital stock. These treasury shares were directly owned by Telefónica, S.A.

The table below shows the purchases of Telefónica shares made by or on behalf of Telefónica or any affiliated purchaser during 2022. These purchases were made in open-market transactions and none of the shares were purchased under a publicly announced plan or program.

Period of Fiscal Year	Total number of shares purchased	Average price paid per share (euro)	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased under the plans or programs
January 1 to January 31	3,188,664	3.92	—	—
February 1 to February 28	4,581,969	4.19	—	—
March 1 to March 31	4,429,955	4.03	—	—
April 1 to April 30	2,026,043	4.82	—	—
May 1 to May 31	6,573,160	4.69	—	—
June 1 to June 30	6,760,099	4.59	—	—
July 1 to July 31	9,104,597	4.59	—	—
August 1 to August 31	15,683,799	4.27	—	—
September 1 to September 30	13,581,997	3.82	—	—
October 1 to October 31	10,936,975	3.35	—	—
November 1 to November 30	6,581,136	3.54	—	—
December 1 to December 31	6,955,136	3.41	—	—
Total	90,403,530	4.04	—	—

The table does not include shares received by Telefonica pursuant to Telefónica’s scrip dividend in June 2022 (563,415 shares) in connection with its treasury shares.

For information regarding our share buybacks, see “Item 8. Financial Information—Dividend Information and Shareholders’ Return” and Note 17 to our Consolidated Financial Statements.

Item 16F. Change in Registrant’s Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

Corporate governance guidelines

In Spain, companies with securities listed on a Spanish Stock Exchange are expected to follow the Good Governance Code of Listed Companies (the “Code”), which was approved in February 2015 and most recently revised in June 2020. The Code contains certain corporate governance and shareholder disclosure recommendations. Spanish listed companies are required by law to publish an Annual Report on Corporate Governance and a Report on the Compensation of the Board of Directors. Additionally, Spanish listed companies are required to publish their corporate governance information on their websites. We base our corporate governance procedures on the recommendations of the Code. As part of our corporate governance procedures, we have adopted regulations for our Board of Directors that govern, among other things, director qualification standards, responsibilities, compensation, access to management information, the Board of Directors’ purpose and each of our Board Committee’s purpose and responsibilities. Moreover, we have a Regulation of the General Shareholders’ Meeting that aims to reinforce its transparency, providing shareholders with a framework guaranteeing and facilitating exercise of their rights. Additionally, we also have regulations for the Audit and Control Committee and for the Nominating, Compensation and Corporate Governance Committee. The Annual Report on Corporate Governance published by us provides a detailed explanation of our corporate governance procedures and explains the role and duties of our Board of Directors and Board Committees. Our Annual Report on Corporate Governance and the Report on the Compensation of the Board of Directors of Telefónica, S.A. are available on our website at www.telefonica.com. None of the information contained on our website is incorporated in this Annual Report.

Committees

We have an Executive Commission. The Board of Directors delegates all its powers to an Executive Commission, except those that cannot be delegated by law, by our bylaws, or by the Regulations of the Board of Directors. The Executive Commission provides for greater efficiency and effectiveness in the execution of tasks, since it meets more often than the Board of Directors. The Executive Commission shall report to the Board in a timely manner on the matters dealt with and the decisions adopted at the meetings thereof, with a copy of the minutes of such meetings made available to the members of the Board (according to Article 21.C of the Regulations of the Board of Directors). The Executive Commission shall consist of the Chairman of the Board of Directors, once appointed as a member of the Executive Commission, and not less than three nor more than ten Directors, appointed by the Board of Directors. The Board of Directors shall seek that the Executive Commission has at least two external Directors, of whom at least one shall be independent.

We have had an Audit and Control Committee since 1997. Our Audit and Control Committee is composed of four non-executive and independent directors, all of whom are deemed Rule 10A-3 independent by our Board of Directors. The functions, composition and competencies of this Committee are regulated by the Board of Directors’ Regulations and the Regulations of the Audit and Control Committee and are similar to those required by the NYSE. The Audit and Control Committee shall consist of not less than three directors appointed by our Board of Directors. All Committee members shall be external Directors, and at least a majority of them must be independent Directors. When appointing such members, our Board of Directors shall take into account the appointees’ knowledge and experience in matters of accounting, auditing and risk management.

We have had a Nominating, Compensation and Corporate Governance Committee since 1997, which is composed of five external directors. The functions, composition and competencies of this Committee are regulated by the Board of Directors’ Regulations and by the Regulations of the Nominating, Compensation and Corporate Governance Committee and are very similar to those required by the NYSE. The Nominating, Compensation and Corporate Governance Committee shall consist of not less than three directors appointed by the Board of Directors. All members of the Committee must be external directors and the majority thereof must be independent. The chairman of the Nominating, Compensation and Corporate Governance Committee, who shall in all events be an independent director, shall be appointed from among its members.

Additionally, we have a Regulation and Institutional Affairs Committee, a Sustainability and Quality Committee and a Strategy and Innovation Committee. Their functions, composition and competencies are regulated by the Board of Directors’ Regulations.

Independence of the Board

As of the date of this Annual Report, we have 15 directors, out of which nine have been deemed independent by our Board of Directors attending to the director's classification contained in Spanish Corporations Act (*Ley de Sociedades de Capital*). All our directors, with the exception of Mr. Álvarez-Pallete López (our Chairman and Chief Executive Officer) and Mr. Vilá Boix (our Chief Operating Officer), are non-executive directors. We, in accordance with the Spanish Corporations Act, assess the independence of our directors. Among other things, independent directors: (i) shall not be, past employees or executive directors of any of the Group companies, unless three or five years have elapsed, respectively, (ii) shall not receive any payment or other form of compensation from us or our group on top of their directors' fees, unless the amount involved is not significant, (iii) shall not be partners, now or on the past three years, in the external auditor or in the firm responsible for the audit report, (iv) shall not be executive directors or senior officers of another company where one of our executive directors or senior officers is an external director, (v) shall not have material business dealings with us or any other company in our group, (vi) shall not be spouses, nor partners maintaining an analogous affective relationship, nor close relative of any of our executive directors or senior officers and (vii) shall not stand in any of the situations listed in (i), (v) or (vi) above in relation to a significant shareholder or a shareholder with board representation.

The classification of each director shall be explained by the Board of Directors to the shareholders at the General Shareholders' Meeting at which the appointment thereof must be made or ratified. Furthermore, such classification shall be reviewed annually by our Board of Directors after verification by the Nominating, Compensation and Corporate Governance Committee, and reported in the Annual Corporate Governance Report.

Internal Audit Function

We have an Internal Audit Department responsible for internal audit matters and for ensuring the efficiency of the internal audit control process of our different units. This Internal Audit Department reports directly to the Audit and Control Committee, thus supporting the adequate performance of all its functions.

Non-Executive Director Meetings

Pursuant to the NYSE listing standards, non-executive directors of U.S.-listed companies must meet on a regular basis without management present and the company must disclose a method for any interested parties to communicate directly with the non-executive directors. As a group, our non-executive directors do not meet formally without management present. Nevertheless, each of the Audit and Control Committee, the Nominating, Compensation and Corporate Governance Committee, the Regulation and Institutional Affairs Committee, the Sustainability and Quality Committee and the Strategy and Innovation Committee is composed exclusively of non-executive directors, thus giving each of these committees, the chance to analyze and discuss any matter related to our management, within its respective area of responsibility.

In addition, since May 2013, we have a lead independent director who acts as "Coordinating Independent Director", to whom our bylaws grant the right to have a say on key elements of governance structure, which most companies in Spain and around the world reserve to the Board of Directors.

According to our bylaws (Art. 32) the independent director who acts as "Coordinating Independent Director", shall carry out the following duties and tasks:

- a) Coordinate the work of the External Directors that the Company has appointed, in defense of the interests of all the shareholders of the Company, and echo the concerns of such Directors.
- b) Request the Chairman of the Board of Directors to call meetings of the Board where appropriate in accordance with the rules of corporate governance.
- c) Request, consequently, the inclusion of certain matters in the agenda of the meetings of the Board of Directors.
- d) Oversee the evaluation by the Board of Directors of the Chairman thereof.

Whistleblowing

We have procedures in place that allow any employee or other people related to us, such as Board members, shareholders, suppliers, contractors or subcontractors, to anonymously and confidentially report instances of fraud, alterations of financial information or specific risks to Telefónica and its subsidiaries.

Code of Ethics

The NYSE listing standards require U.S. companies to adopt a code of business conduct and ethics for directors, officers and employees, which at minimum must address certain specified topics, and promptly disclose any waivers of the code for directors or executive officers. In 2004 we adopted, as required by the Sarbanes-Oxley Act, a code of ethics that applied to our principal executive officer, principal financial officer and to our senior financial officers. In December 2006, we adopted a code of business conduct and ethics, the “Telefónica’s Responsible Business Principles”, which apply to all Telefónica Group employees. In March 2008, we decided to modify such Responsible Business Principles in order to incorporate within them all components of the code of ethics definition in Section 406 of Sarbanes Oxley Act, and consequently our code of ethics for senior officers was replaced by such Responsible Business Principles. These Responsible Business Principles were further modified in 2016 and 2017 in order to include, among others, several new principles related to privacy and data protection, security, responsible communication practices as well as to reinforce other principles including the anti-corruption principle. In 2021, we decided to modify again the Telefónica’s Responsible Business Principles in order to incorporate new principles related to digital rights and innovation, development and responsible use of technology. This update also incorporates new terms such as climate change, circular economy, conciliation and inclusion, key concepts in our company strategy.

We also have an internal code of conduct for securities markets issues to prevent insider trading misconduct and to control possible conflicts of interest. In addition, the Regulations of the Board of Directors set out in detail our directors’ main obligations relating to conflicts of interest concerning business opportunities, misappropriation of our assets, confidentiality and non-competition.

Item 16H. Mine Safety Disclosure

Not applicable.

Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Part III

Item 17. Financial Statements

We have responded to Item 18 in lieu of responding to this Item.

Item 18. Financial Statements

Please see pages F-6 through F-214.

Item 19. Exhibits

Exhibit Number	Description
1.1	Amended and Restated bylaws (English translation)
2.1	Description of registrant's securities
4.1	Agreement for the Sale and Purchase of Customer Relationship Management business, Atento, dated October 11, 2012 *
4.3	2018 Long-Term Incentive Plan Terms**
4.4	2021 Long-Term Incentive Plan Terms****
8.1	Subsidiaries of Telefónica (see Note 1 to the Consolidated Financial Statements and Appendix I thereto)
10.1	Contribution Agreement, dated May 7, 2020, by and among Telefónica, S.A., Telefonica O2 Holdings Limited, Liberty Global, plc., Liberty Global Europe 2 Limited and Liberty Global Holdco Limited ****#
10.2	Agreement for the sale and purchase of the towers Europe division of Telxius Telecom, S.A. dated January 13, 2021, between Telxius Telecom, S.A. and American Tower International, Inc.***#
10.3	Agreement for the sale and purchase of the towers Latam division of Telxius Telecom, S.A. dated January 13, 2021, between Telxius Telecom, S.A. and American Tower International, Inc.***#
10.4	Shareholders Agreement, dated June 1, 2021, by and among Liberty Global plc, Liberty Global Europe 2 Limited, Liberty Global Holdco Limited, Telefónica, S.A. and Telefonica O2 Holdings Limited****#¥
12.1	Certification of José María Álvarez-Pallete López, Chairman and Chief Executive Officer of Telefónica, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2	Certification of Laura Abasolo García de Baquedano, Chief Finance and Control Officer of Telefónica, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	Inline XBRL Instance Document — the instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL TAXONOMY EXTENSION SCHEMA DOCUMENT
101.CAL	Inline XBRL TAXONOMY EXTENSION CALCULATION LINKBASE DOCUMENT
101.DEF	Inline XBRL TAXONOMY EXTENSION DEFINITION LINKBASE DOCUMENT
101.LAB	Inline XBRL TAXONOMY EXTENSION LABEL LINKBASE DOCUMENT
101.PRE	Inline XBRL TAXONOMY EXTENSION PRESENTATION LINKBASE DOCUMENT
104	Cover Page Interactive Data File — the cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document

- * Incorporated by reference to Telefónica's Annual Report on Form 20-F for the fiscal year ended December 31, 2012.
- ** Incorporated by reference to Telefónica's Annual Report on Form 20-F for the fiscal year ended December 31, 2018.
- *** Incorporated by reference to Telefónica's Annual Report on Form 20-F for the fiscal year ended December 31, 2020.
- **** Incorporated by reference to Telefónica's Annual Report on Form 20-F for the fiscal year ended December 31, 2021.
- # Schedules and/or attachments to the agreement have been omitted pursuant to Item 601(a)(5) of Regulation S-K but will be provided to the U.S. Securities and Exchange Commission or its staff upon request.
- ¥ Information has been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K because it is both not material and is the type that the registrant treats as private or confidential. Such information will be provided to the U.S. Securities and Exchange Commission or its staff upon request.

We agree to furnish to the SEC upon request, copies of the instruments defining the rights of the holders of our long-term debt and of our subsidiaries' long-term debt.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

TELEFÓNICA, S.A.

By: /s/ José María Álvarez-Pallete López

Name: José María Álvarez-Pallete López

Title: Chairman and Chief Executive Officer

TELEFÓNICA, S.A.

By: /s/ Laura Abasolo García de Baquedano

Name: Laura Abasolo García de Baquedano

Title: Chief Finance and Control Officer

Date: February 23, 2023

Consolidated Financial Statements

Telefónica, S.A. and subsidiaries composing the Telefónica Group.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Telefónica, S.A.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Telefónica, S.A. and subsidiaries composing the Telefónica Group (the “Company”) as of December 31, 2022 and 2021, and the related consolidated income statements, consolidated statements of comprehensive income, consolidated statements of changes in equity, and consolidated statements of cash flows for each of the three years in the period ended December 31, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company’s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Annual Report on Internal Control Over Financial Reporting appearing under Item 15. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company’s internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management’s Annual Report on Internal Control over Financial Reporting, management has excluded Garliava RJ Infraestrutura e Redes de Telecomunicações S.A., Perpetual TopCo Limited and affiliates and BE-terna Acceleration Holding GmbH and affiliates from its assessment of internal control over financial reporting as of December 31, 2022 because they were acquired by the Company in purchase business combinations during 2022. We have also excluded Garliava RJ Infraestrutura e Redes de Telecomunicações S.A., Perpetual TopCo Limited and affiliates and BE-terna Acceleration Holding GmbH and affiliates from our audit of internal control over financial reporting. Garliava RJ Infraestrutura e Redes de Telecomunicações S.A., Perpetual TopCo Limited and affiliates and BE-terna Acceleration Holding GmbH and affiliates are wholly-owned subsidiaries whose total assets and total revenues excluded from management’s assessment and our audit of internal control over financial reporting collectively represent 0.3% and 0.8%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2022.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill impairment assessment

As described in Notes 3 and 7 to the consolidated financial statements, the Company's consolidated goodwill balance was €18,471 million at December 31, 2022 arising from business combinations completed in the countries in which the Company operates. Management conducts impairment tests for goodwill at least annually or more frequently, if there are certain events or changes indicating the possibility that the carrying amount may not be fully recoverable. The potential impairment loss is determined by assessing the recoverable amount of the cash-generating unit to which the goodwill relates. Management calculates the recoverable amount of each cash-generating unit as the higher of fair value less cost to sell and value in use. In assessing value in use, the projected cash flows are based on the strategic plans approved by the Board of Directors covering a three-year period including the closing year. Management's cash flows projections included significant judgements when considering significant assumptions such as revenue growth, long-term OIBDA margin, long-term capital expenditure ratio, discount rates and perpetuity growth rates which would be significantly affected by the future trends in the economic, competitive, regulatory and technological environment in each of the countries in which the Company operates.

The principal considerations for our determination that performing procedures relating to goodwill impairment assessment is a critical audit matter are the significant judgments made by management when developing the recoverable amount of the cash-generating units. This in turn led to a high degree of auditor judgement and effort in performing procedures and evaluating management's significant assumptions, related to revenue growth, long-term OIBDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the determination of the recoverable amount of the Company's cash-generating units. These procedures also included, among others, testing management's process for developing the value in use estimate; evaluating the appropriateness of the discounted cash flow model; testing the completeness, accuracy, and relevance of underlying data used in the model; and evaluating the significant assumptions used by management, related to revenue growth, long-term OIBDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate. Evaluating whether the significant assumptions used by management were reasonable involved evaluating (1) the current and past performance of the cash-generating units, (2) the consistency with available external information, (3) the sensitivity analysis performed by management, and (4) the sufficiency of the Company's goodwill impairment disclosures. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow model and the discount rate and the perpetuity growth rate assumptions.

Revenue recognition (Unbilled revenue)

As described in Notes 3 and 14 to the consolidated financial statements, of the total gross revenue recognized by the Company for the year ended December 31, 2022, €2,495 million relates to services rendered and not yet billed. When the revenue billing cycle does not align with the consolidated financial statements closing date, management estimates the amount to be recognized for services rendered and not yet billed at the year-end. These estimates are based on data obtained from different sources and revenue streams processed by the information systems and historical information.

The principal considerations for our determination that performing procedures relating to unbilled revenue is a critical audit matter are the complexity of the process used by management for estimating recognized revenue rendered and not yet billed, given the diversity of data sources, revenue streams and the number of systems involved. This in turn led to a high degree of audit subjectivity and effort in designing and performing audit procedures to evaluate whether the unbilled revenue estimates are recognized properly.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to revenue recognition, including controls over the determination of estimated unbilled revenue and IT general controls over the main systems involved in the process. These procedures also included, among others, (1) assessing the reasonableness of the criteria employed by management to estimate revenue rendered and not yet billed including the accuracy and completeness of the underlying data, and (2) testing billings completed following the year-end for consistency with the estimates made.

Tax and regulatory proceedings in Telefonica Brazil

As described in Notes 3, 24 and 25 to the consolidated financial statements, the Company has recognized provisions related to income tax, other taxes and regulatory proceedings in Telefonica Brazil amounting €19 million, €446 million and €336 million, respectively, and has disclosed contingent liabilities related to income tax, other taxes, and regulatory proceedings amounting €5,346 million, €6,009 million and €1,049 million, respectively as of December 31, 2022. The Company recognizes provision for the pending litigation when management determines that a loss is probable and the amount of the loss can be reliably estimated. No liability for an estimated loss is accrued in the consolidated financial statements for unfavorable outcomes when, after assessing the information available, management concludes that it is not probable that a loss has been incurred in any of the pending litigation. In case of income tax pending litigations, management determines whether is probable or not that taxation authority will accept the uncertain tax treatment. If the Company concludes it is not probable that taxation authority will accept the uncertain tax treatment, a provision for income tax is recognized. The Company discloses contingencies when management concludes no loss is probable or reasonably estimable, but it is reasonably possible that a loss may be incurred, and for income tax pending litigations, is probable that the taxation authority will accept the uncertain tax treatment.

The principal considerations for our determination that performing procedures relating to tax and regulatory proceedings in Telefonica Brazil is a critical audit matter are the significant judgments made by management when assessing the likelihood of a loss being incurred and when determining whether a reasonable estimate of the loss and possible outcomes for each claim can be made, which in turn led to a high degree of auditor judgment, effort, and subjectivity in evaluating management's assessment of the loss contingencies associated with litigations claims.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's evaluation of recognition, measurement and disclosure of tax and regulatory proceedings in Brazil. These procedures also included, among others, (1) obtaining and evaluating the responses to our letters of audit inquiry with internal and external legal counsels, (2) evaluating the reasonableness of management's assessment regarding unfavorable outcomes, and (3) evaluating the sufficiency of the management's tax and regulatory contingency disclosures. Professionals with specialized skill and knowledge were used to assist in the evaluation of the management's assessment regarding whether an unfavorable outcome is reasonably possible or probable.

Impairment assessment of the investment in VMED O2 UK Ltd

As described in Notes 2, 3 and 10 to the consolidated financial statements, the Company's equity method investment in VMED O2 UK Ltd amounts to €10,779 million as of December 31, 2022. Management evaluates its investment in VMED O2 UK Ltd for impairment if there is objective evidence that indicates that the net investment

may be impaired including information about significant changes with an adverse effect that have taken place in the market or economic environment in which VMED O2 UK Ltd operates and indicates that the investment may not be recovered. Management has assessed the recoverable amount of the investment using valuation techniques, including discounted cash flow model that requires significant judgments when considering significant assumptions such as revenue growth rate, long-term EBITDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate.

The principal considerations for our determination that performing procedures relating to the impairment assessment of the investment in VMED O2 UK Ltd is a critical audit matter are the significant judgments made by management in the discounted cash flow model, which in turn led to a high degree of auditor judgement, subjectivity and effort in evaluating management's significant assumptions, related to revenue growth, long-term EBITDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's impairment assessment, including controls over the valuation of the VMED O2 UK Ltd equity method investment. These procedures also included, among others, testing management's process for determining the value in use of its investment in VMED O2 UK Ltd; evaluating the appropriateness of the discounted cash flow model; testing the completeness and accuracy of the underlying data used in the model; and evaluating the reasonableness of the significant assumptions used by management, related to revenue growth, long-term EBITDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate. Evaluating whether the significant assumptions used by management were reasonable involved evaluating (1) the consistency with external available information, (2) the sensitivity analysis performed by management, and (3) the sufficiency of the Company's impairment assessment disclosures. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow model and the discount rate and the perpetuity growth rate assumptions.

/s/ PricewaterhouseCoopers Auditores, S.L.

Madrid, Spain

February 23, 2023

We have served as the Company's auditor since 2017.

Consolidated Statements of financial position			
Millions of euros	Notes	2022	2021
ASSETS			
A) NON-CURRENT ASSETS		87,053	84,284
Intangible assets	(Note 6)	12,017	11,725
Goodwill	(Note 7)	18,471	16,519
Property, plant and equipment	(Note 8)	23,714	22,725
Rights of use	(Note 9)	8,279	7,579
Investments accounted for by the equity method	(Note 10)	11,587	12,773
Financial assets and other non-current assets	(Note 12)	8,101	7,347
Deferred tax assets	(Note 25)	4,884	5,616
B) CURRENT ASSETS		22,589	24,929
Inventories	(Note 13)	1,546	1,749
Receivables and other current assets	(Note 14)	9,134	8,287
Tax receivables	(Note 25)	2,213	2,120
Other current financial assets	(Note 15)	2,444	3,835
Cash and cash equivalents	(Note 16)	7,245	8,580
Non-current assets and disposal groups held for sale	(Note 30)	7	358
TOTAL ASSETS (A+B)		109,642	109,213
	Notes	2022	2021
EQUITY AND LIABILITIES			
A) EQUITY		31,708	28,684
Equity attributable to equity holders of the parent and other holders of equity instruments	(Note 17)	25,088	22,207
Equity attributable to non-controlling interests	(Note 17)	6,620	6,477
B) NON-CURRENT LIABILITIES		54,834	55,034
Non-current financial liabilities	(Note 18)	35,059	35,290
Non-current lease liabilities	(Note 20)	6,657	6,391
Payables and other non-current liabilities	(Note 21)	3,546	3,089
Deferred tax liabilities	(Note 25)	3,067	2,602
Non-current provisions	(Note 24)	6,505	7,662
C) CURRENT LIABILITIES		23,100	25,495
Current financial liabilities	(Note 18)	4,020	7,005
Current lease liabilities	(Note 20)	2,020	1,679
Payables and other current liabilities	(Note 22)	13,509	13,210
Current tax payables	(Note 25)	1,920	2,026
Current provisions	(Note 24)	1,631	1,441
Liabilities associated with non-current assets and disposal groups held for sale	(Note 30)	—	134
TOTAL EQUITY AND LIABILITIES (A+B+C)		109,642	109,213

The accompanying notes and appendices are an integral part of these consolidated statements of financial position.

Consolidated income statements				
Millions of euros	Notes	2022	2021	2020
Revenues	(Note 26)	39,993	39,277	43,076
Other income	(Note 26)	2,065	12,673	1,587
Supplies		(12,941)	(12,258)	(13,014)
Personnel expenses	(Note 26)	(5,524)	(6,733)	(5,280)
Other expenses	(Note 26)	(10,741)	(10,976)	(12,871)
Depreciation and amortization	(Note 26)	(8,796)	(8,397)	(9,359)
OPERATING INCOME		4,056	13,586	4,139
Share of income (loss) of investments accounted for by the equity method	(Note 10)	217	(127)	2
Finance income		1,803	614	677
Exchange gains		2,910	2,801	3,847
Finance costs		(3,030)	(2,028)	(2,417)
Exchange losses		(2,996)	(2,751)	(3,665)
Net financial expense	(Note 19)	(1,313)	(1,364)	(1,558)
PROFIT BEFORE TAX		2,960	12,095	2,583
Corporate income tax	(Note 25)	(641)	(1,378)	(626)
PROFIT FOR THE YEAR		2,319	10,717	1,957
Attributable to equity holders of the parent		2,011	8,137	1,582
Attributable to non-controlling interests	(Note 17)	308	2,580	375
Basic earnings per share (euros)	(Note 26)	0.31	1.34	0.22
Diluted earnings per share euros)	(Note 26)	0.31	1.34	0.22

The accompanying notes and appendices are an integral part of these consolidated income statements.

Consolidated Statements of comprehensive income	2022	2021	2020
Millions of euros			
Profit for the year	2,319	10,717	1,957
Other comprehensive (loss) income	1,908	4,557	(7,305)
Gains (losses) from financial assets measured at Fair value through other comprehensive income	(29)	2	1
Income tax impact	9	(1)	—
	(20)	1	1
Gains (losses) on hedges	1,081	1,593	(765)
Income tax impact	(282)	(395)	183
Reclassification of (gains) losses included in the income statement (Note 19)	(704)	(1,874)	963
Income tax impact	181	478	(250)
	276	(198)	131
Gains (losses) on hedges costs	(59)	128	(98)
Income tax impact	15	(32)	24
Reclassification of (gains) losses included in the income statement (Note 19)	(9)	(10)	(8)
Income tax impact	2	3	2
	(51)	89	(80)
Share of gains (losses) recognized directly in equity of associates and others (Note 10)	65	32	—
Income tax impact	—	—	—
	65	32	—
Translation differences (Note 17)	1,562	4,098	(7,236)
Total other comprehensive income (loss) recognized for the year that may be reclassified subsequently to profit or loss	1,832	4,022	(7,184)
Actuarial gains (losses) and impact of limit on assets for defined benefit pension plans	102	130	33
Income tax impact	(32)	(35)	—
Reclassification to reserve actuarial losses (gains) and impact of limit on assets for defined benefit pension plans (Note 2)	—	392	—
	70	487	33
Gains (losses) from financial assets measured at fair value through comprehensive income	42	49	(141)
Income tax impact	—	(1)	(13)
Reclassification to reserve of gains (losses) from financial assets measured at fair value through comprehensive income (Note 12)	71	—	—
	113	48	(154)
Share of (losses) gains recognized directly in equity of associates (Note 10)	(107)	—	—
	(107)	—	—
Total other comprehensive income (loss) recognized for the year that will not be reclassified subsequently to profit or loss	76	535	(121)
Total comprehensive income (loss) recognized for the year	4,227	15,274	(5,348)
Attributable to:			
Equity holders of the parent and other holders of equity instruments	3,519	12,652	(4,286)
Non-controlling interests	708	2,622	(1,062)
	4,227	15,274	(5,348)

The accompanying notes and appendices are an integral part of these consolidated statements of comprehensive income.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY	Attributable to equity holders of the parent and other holders of equity instruments											Non- contro- lling interests (Note 17)	Total equity
	Share capital	Share premium	Treasury Shares	Other equity instru- ments	Legal reser- ve	Retained earnings	Fair value finan- cial assets	Hedges	Equity of associ- ates and others	Transla- tion differe- nces	Total		
Millions of euros													
Financial position at December 31, 2021	5,779	4,233	(547)	7,550	1,038	26,091	(547)	438	64	(21,892)	22,207	6,477	28,684
Profit for the year	—	—	—	—	—	2,011	—	—	—	—	2,011	308	2,319
Other comprehensive income (loss) for the year	—	—	—	—	—	48	98	287	(94)	1,169	1,508	400	1,908
Total comprehensive income (loss) for the year	—	—	—	—	—	2,059	98	287	(94)	1,169	3,519	708	4,227
Dividends and distribution of profit (Note 17)	135	—	—	—	21	(1,223)	—	—	—	—	(1,067)	(411)	(1,478)
Net movement in treasury shares	—	—	(342)	—	—	(22)	—	—	—	—	(364)	—	(364)
Acquisitions and disposals of non-controlling interests and business combinations (Note 2)	—	—	—	—	—	936	—	—	—	—	936	(155)	781
Capital reduction	(139)	(409)	548	—	—	—	—	—	—	—	—	—	—
Undated deeply subordinated securities (Note 17)	—	—	—	—	—	(201)	—	—	—	—	(201)	—	(201)
Other movements	—	—	—	—	—	58	—	—	—	—	58	1	59
Financial position at December 31, 2022	5,775	3,824	(341)	7,550	1,059	27,698	(449)	725	(30)	(20,723)	25,088	6,620	31,708

The accompanying notes and appendices are an integral part of these consolidated statements of changes in equity.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY													
Attributable to equity holders of the parent and other holders of equity instruments													
Millions of euros	Share capital	Share premium	Treasury Shares	Other equity instruments	Legal reserve	Retained earnings	Fair value financial assets	Hedges	Equity of associates and others	Translation differences	Total	Non-controlling interests (Note 17)	Total equity
Financial position at December 31, 2020	5,526	4,538	(476)	7,550	1,038	19,046	(597)	647	(57)	(25,980)	11,235	7,025	18,260
Profit for the year						8,137					8,137	2,580	10,717
Other comprehensive income (loss) for the year						465	50	(209)	121	4,088	4,515	42	4,557
Total comprehensive income (loss) for the year						8,602	50	(209)	121	4,088	12,652	2,622	15,274
Dividends and distribution of profit (Note 17)	336	—	—	—	—	(936)				—	(600)	(3,051)	(3,651)
Net movement in treasury shares	—	—	(459)	—	—	(20)				—	(479)	—	(479)
Acquisitions and disposals of non-controlling interests and business combinations (Note 17)	—	—	—	—	—	(354)				—	(354)	(119)	(473)
Capital reduction	(83)	(305)	388	—	—	—				—	—	—	—
Undated deeply subordinated securities (Note 17)	—	—	—	—	—	(263)				—	(263)	—	(263)
Other movements	—	—	—	—	—	16				—	16	—	16
Financial position at December 31, 2021	5,779	4,233	(547)	7,550	1,038	26,091	(547)	438	64	(21,892)	22,207	6,477	28,684
Financial position at December 31, 2019	5,192	4,538	(766)	8,243	1,038	19,042	(444)	503	24	(20,252)	17,118	8,332	25,450
Profit for the year						1,582					1,582	375	1,957
Other comprehensive income (loss) for the year						23	(153)	144	(81)	(5,801)	(5,868)	(1,437)	(7,305)
Total comprehensive income (loss) for the year						1,605	(153)	144	(81)	(5,801)	(4,286)	(1,062)	(5,348)
Dividends and distribution of profit (Note 17)	334	—	—	—	—	(1,048)				—	(714)	(516)	(1,230)
Net movement in treasury shares	—	—	(195)	—	—	(29)				—	(224)	—	(224)
Acquisitions and disposals of non-controlling interests and business combinations	—	—	485	—	—	(223)				—	262	318	580
Undated deeply subordinated securities and notes mandatorily convertible (Note 17)	—	—	—	(693)	—	(335)				73	(955)	(42)	(997)
Other movements	—	—	—	—	—	34				—	34	(5)	29
Financial position at December 31, 2020	5,526	4,538	(476)	7,550	1,038	19,046	(597)	647	(57)	(25,980)	11,235	7,025	18,260

The accompanying notes and appendices are an integral part of these consolidated statements of changes in equity.

Consolidated Statements of cash flows				
Millions of euros	Notes	2022	2021	2020
Cash received from operations	(Note 28)	46,925	46,415	51,353
Cash paid from operations	(Note 28)	(34,778)	(34,379)	(36,477)
Net payments of interest and other financial expenses net of dividends received	(Note 28)	(292)	(1,309)	(1,171)
Taxes (paid)/proceeds	(Note 28)	(92)	(459)	(509)
Net cash flow provided by operating activities	(Note 28)	11,763	10,268	13,196
(Payments on investments)/proceeds from the sale in property, plant and equipment and intangible assets	(Note 28)	(5,508)	(6,164)	(7,020)
(Payments)/proceeds on disposals of companies, net of cash and cash equivalents disposed	(Note 28)	(115)	13,369	81
Payments on investments in companies, net of cash and cash equivalents acquired	(Note 28)	(1,628)	(414)	(79)
Proceeds on financial investments not included under cash equivalents	(Note 28)	2,967	2,163	2,308
Payments on financial investments not included under cash equivalents	(Note 28)	(2,575)	(1,474)	(3,297)
Net proceeds/(payments) for temporary financial investments		1,532	(1,584)	217
Net cash flow used in investing activities	(Note 28)	(5,327)	5,896	(7,790)
Dividends paid	(Note 28)	(1,397)	(3,630)	(1,296)
Proceeds from share capital increase with minority interest	(Note 28)	1,022	—	323
(Payments)/proceeds of treasury shares and other operations with shareholders and with minority interests	(Note 28)	(555)	(604)	(223)
Operations with other equity holders	(Note 28)	(268)	(354)	(1,020)
Proceeds on issue of debentures and bonds and other debts	(Note 28)	1,746	561	4,011
Proceeds on loans, borrowings and promissory notes	(Note 28)	839	3,085	4,516
Repayments of debentures and bonds and other debts	(Note 28)	(3,541)	(5,847)	(6,728)
Repayments of loans, borrowings and promissory notes	(Note 28)	(3,077)	(4,146)	(2,852)
Lease principal payments	(Note 20)	(1,996)	(1,782)	(1,787)
Financed operating payments and investments in property, plant and equipment and intangible assets payments	(Note 28)	(698)	(273)	(382)
Net cash used in financing activities	(Note 28)	(7,925)	(12,990)	(5,438)
Effect of changes in exchange rates		156	(179)	(402)
Cash reclassified to assets held for sale	(Note 30)	—	(7)	(4)
Effect of changes in consolidation methods and others		(2)	(12)	—
Net increase (decrease) in cash and cash equivalents during the year		(1,335)	2,976	(438)
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	(Note 16)	8,580	5,604	6,042
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	(Note 16)	7,245	8,580	5,604
RECONCILIATION OF CASH AND CASH EQUIVALENTS WITH THE STATEMENTS OF FINANCIAL POSITION				
BALANCE AT THE BEGINNING OF THE PERIOD	(Note 16)	8,580	5,604	6,042
Cash on hand and at banks		7,353	4,600	5,209
Other cash equivalents		1,227	1,004	833
BALANCE AT THE END OF THE PERIOD	(Note 16)	7,245	8,580	5,604
Cash on hand and at banks		6,653	7,353	4,600
Other cash equivalents		592	1,227	1,004

The accompanying notes and appendices are an integral part of these consolidated statements of cash flows.

Telefónica, S.A. and subsidiaries composing the Telefónica Group

Notes to the consolidated financial statements for the year ended December 31, 2022

Note 1. Background and general information

Telefónica, S.A. and its subsidiaries and investees (hereinafter also referred to as Telefónica, the Company, the Telefónica Group or the Group) make up an integrated and diversified telecommunications group operating mainly in Europe and Latin America. The Group's activity is centered around services of fixed and wireless telephony, broadband, Internet, data traffic, Pay TV and other digital services.

The parent company of the Group is Telefónica, S.A., a public limited company incorporated on April 19, 1924 for an indefinite period. Its registered office is at calle Gran Vía 28, Madrid (Spain).

Appendix I lists the main companies composing the Telefónica Group, their corporate purpose, country, functional currency, share capital, the Group's effective shareholding and their method of consolidation.

As a multinational telecommunications company which operates in regulated markets, the Group is subject to different laws and regulations in each of the jurisdictions in which it operates, pursuant to which permits, concessions or licenses must be obtained in certain circumstances to provide the various services. In addition, certain fixed and wireless telephony services are provided under regulated rate and price systems. Key regulatory issues, and concessions and licenses held by the Telefónica Group are detailed in Appendix VI.

The accompanying consolidated financial statements for the year ended December 31, 2022 were approved by the Company's Board of Directors at its meeting on February 22, 2023 for submission for approval at the General Shareholders' Meeting, which is expected to occur without modification.

Note 2. Basis of presentation of the consolidated financial statements

The accompanying consolidated financial statements were prepared from the accounting records of Telefónica, S.A. and each of the companies comprising the Telefónica Group, whose separate financial statements were prepared in accordance with the generally accepted accounting principles applicable in the various countries in which they are located, and for the purposes of these consolidated financial statements are presented in accordance with the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). These consolidated financial statements present fairly, in all material respects, the consolidated equity and financial position at December 31, 2022, and of the consolidated results of operations, changes in consolidated equity and the consolidated cash flows obtained and used in the year then ended.

The euro is the Group's reporting currency. The figures in these consolidated financial statements are expressed in million euros, unless indicated otherwise, and may therefore be rounded.

Note 3 contains a detailed description of the most significant accounting policies used to prepare these consolidated financial statements.

Materiality criteria

These consolidated financial statements do not include certain information or disclosures that, not having to be presented due to their qualitative significance, were deemed to be immaterial or of no relevance pursuant to the concepts of materiality or relevance defined in the IFRS conceptual framework, insofar as the Telefónica Group's consolidated financial statements, taken as a whole, are concerned.

Comparative information and main changes in the consolidation scope

For comparative purposes, the accompanying consolidated financial statements for 2022 include the figures for 2021, and the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows, and the notes thereto for the year then ended, they also include those of 2020.

The main events and changes in the consolidation scope affecting comparability of the consolidated information for 2022 and 2021 (see Appendix I for a detailed description of the consolidation scope and the changes during the year) are as listed below.

Exchange rates evolution

Variation of average exchange rate vs euro		
	2022 vs 2021	2021 vs 2020
Brazilian real	17.6%	(8.8%)
Pound sterling	0.8%	3.4%
New peruvian sol	13.7%	(13.2%)
Chilean peso	(2.2%)	0.6%
Colombian peso	(0.6%)	(5.1%)
Mexican peso	13.5%	1.6%

Variation of closing exchange rate vs euro		
	2022 vs 2021	2021 vs 2020
Brazilian real	13.5%	0.9%
Pound sterling	(5.3%)	6.9%
New peruvian sol	10.9%	(1.6%)
Chilean peso	4.7%	(8.8%)
Colombian peso	(12.2%)	(6.6%)
Mexican peso	11.5%	5.4%

In 2022, there was a positive impact on Equity attributable to equity holders of the Parent Company for translation differences amounting to 1,169 million euros (see Note 17.f), mainly due to the appreciation of the Brazilian real.

Agreement between Telefónica and Liberty Global plc to combine their operating businesses in the UK

On May 7, 2020, Telefónica reached an agreement with Liberty Global plc to combine into a 50-50 joint venture their operating businesses in the United Kingdom (O2 Holdings Ltd. and Virgin Media UK, respectively). On June 1, 2021 after obtaining the relevant regulatory approvals, consummation of the necessary recapitalization and satisfaction of other closing conditions, the closing of the transaction was carried out, resulting in the combination of both businesses into the joint venture called VMED O2 UK Limited ("VMO2").

Telefonica United Kingdom, which was fully consolidated within the Group, is excluded from the scope of consolidation from June 1, 2021 (Note 4). From that date, VMO2 is registered under the equity method (see notes 4 and 10).

The constitution of the joint venture resulted in a contribution of 5,376 million pounds sterling (equivalent to 6,234 million euros at the transaction day) for Telefonica, of which 2,622 million pounds correspond to the cash payment to Telefónica to equalise ownership in the joint venture (including the post-completion adjustment, see Note 29.c) and 2,754 million pounds correspond to proceeds from recapitalization.

As a consequence of this transaction, the Group recognized a gain amounting to 4,460 million euros in "Other income" in 2021 (see Note 26), as follows:

	Millions of euros
Cash received	6,234
Fair value of 50% of VMO2 (Note 10)	12,012
Less: carrying amount of Telefonica United Kingdom at June 1, 2021	(10,937)
Liabilities assumed and other costs (see Note 29.c)	(441)
Result before reclassification of translation differences and gains on hedges	6,868
Reclassification of translation differences included in equity	(3,135)
Reclassification of gains on hedges included in equity	727
Result of the transaction: gain	4,460

In addition, the accumulated actuarial losses of Telefonica United Kingdom amounting to 392 million euros were reclassified to retained earnings, with no effect in net equity.

Agreement between Telxius Telecom and American Tower Corporation for the sale of its telecommunications towers divisions in Europe and Latin America

On January 13, 2021 Telxius Telecom, S.A. (a company of the Telefónica Group minority-owned, directly or indirectly, by KKR and Pontegadea), signed an agreement with American Tower Corporation ("ATC") for the sale of its telecommunications towers divisions in Europe (Spain and Germany) and in Latin America (Brazil, Peru, Chile and Argentina).

The agreement established the sale of a number of approximately 30,722 telecommunication tower sites and comprises two separate and independent transactions (on one hand, the Europe business and, on the other hand, the Latin American business), fixing the respective closures after the corresponding regulatory authorizations. The agreement included the transfer to ATC of the towers that Telxius agreed to acquire from Telefónica Germany GmbH & Co. under the agreement signed on June 8, 2020, both the towers acquired in the first phase on September 1, 2020 as well as the towers that were acquired in the second phase in August 2021.

On June 1, 2021, once the relevant regulatory approvals had been obtained in Spain and Germany, the closing of the sale of the telecommunication towers division located in Europe was carried out, for a total selling price of 6,346 million euros.

On June 3, 2021, the closing of the sale of the telecommunication towers division located in Latin America was carried out, for a selling price of 887 million euros.

On August 2, 2021, the closing of the sale to ATC of 4,080 sites that Telxius undertook to acquire from Telefónica Germany GmbH & Co. OHG, under the second phase of the agreement reached between both parties on June 8, 2020 was carried out, which stated a total purchase price of 632 million euros. With the closing of this transaction, together with the sales of the telecommunications towers divisions in Europe and Latin America carried out in June, the sale process agreed between Telxius and ATC was finalized.

These transactions generated in 2021 a gain of 6,099 million euros registered in "Other income" (see Note 26), with the following breakdown:

	Millions of euros
Selling price	7,865
Less: carrying amount of net assets and transaction costs	1,729
Result before reclassification of translation differences	6,136
Translation differences	(37)
Result of the transaction: gain	6,099
Income tax	(162)
Result attributable to non-controlling shareholders	(2,246)
Result attributable to equity holders of the parent	3,691

After the closing of these transactions, the companies of the Europe and Latin América towers divisions were excluded from the consolidation perimeter. The Telefónica Group operators maintained the leases agreements of the towers signed with the sold subsidiaries of Telxius. Consequently, as of the closing date of the transactions, rights of use and lease liabilities were recorded in the consolidated statement of financial position, amounting to 2,633 million euros (see Note 9) and 2,775 million euros (see Note 20), respectively.

Acquisition of mobile assets of Oi Group

On April 20, 2022, the closing of the transaction related to the Purchase Agreement for Acquisition of Unidade Produtiva Isolada (UPI) Mobile Assets of Oi Group took place, and Telefónica Brasil acquired, on such date, all the shares of the company Garliava RJ Infraestrutura e Redes de Telecomunicações S.A. (Garliava), to which the mobile assets of Oi Group assigned to Telefónica Brazil had been contributed, under the segregation plan stated in the Oi Agreement (see Note 29.c).

Telefónica Brasil thus acquired its share of mobile assets of the Oi Group for an amount, still subject to adjustments, of 5,373 million Brazilian reais (approximately 1,063 million euros at the exchange rate at such date). A payment of 4,885 million Brazilian reais (approximately 972 million euros) was made at closing of the transaction. The remaining amount, equivalent to 10% of the payment made on that date, is withheld subject to certain price adjustments and potential indemnification obligations contained in the Oi Agreement. The total consideration also includes 110 million Brazilian reais subject to the fulfilment of certain targets, and other costs amounting to 8 million Brazilian reais. Thus, the total consideration transferred amounted to 5,492 million Brazilian reais (1,093 million euros at the date of the closing of the transaction).

On the date of approval of these consolidated financial statements, the Company had already concluded the report for the allocation of the purchase price. The fair value assigned to Oi's licenses amounts to 520 million euros. The goodwill amounts to 676 million euros (see Note 5).

Agreement between Telefónica de España and Telefónica Infra with Vauban Infrastructure Partners and Crédit Agricole Assurance for the establishment of Bluevia

In July 2022, an agreement was reached between Telefonica de España and Telefonica Infra with the consortium formed by Vauban Infrastructure Partners (Vauban) and Crédit Agricole Assurances (CAA) for the establishment of a company, Bluevia Fibra, S.L. for the deployment and commercialization of a fiber to the home network mainly in rural areas in Spain.

On December 20, 2022 once the regulatory authorizations were obtained and after the fulfillment of the remaining agreed conditions, the transaction was completed.

The consortium formed by CAA and Vauban has acquired 45% of the Company for a total amount of 1,021 million euros in cash, paid on the closing of the agreement (see Note 28). The transaction had no impact on the consolidated income statements of the Telefónica Group as it consisted on the sale of minority interest, with Telefónica retaining control over Bluevia. The impact of this transaction in equity attributable to equity holders of the parent was an increase of 986 million euros in "Retained earnings". In addition, there was an increase in equity attributable to non-controlling interest amounting to 23 million euros (see Note 17).

The difference between the tax value of the assets transferred to Bluevia and their carrying amount in the Group's consolidated annual accounts generated a deferred tax asset for deductible temporary differences amounting to 548 million euros (see Note 25).

Individual Suspension Plan

On December 28, 2021, Telefónica Spain signed a Social Pact for Employment supported by the largest trade unions. Said Pact includes the Company's differential commitments and is based on the following six lines of work: equality and diversity; new ways of working, flexibility and productivity; incorporation and retention of talent; reskilling and professional development; functional and geographical mobility; and a plan for the voluntary individual suspension of the employment relationship (the Individual Suspension Plan).

The target audience of the Individual Suspension Plan are the employees turning 55 years or older in 2022 and with a seniority of more than 20 years. Maximum percentages of adhesion differ according to the areas.

The present value of the estimated payment flows resulting from the Plan resulted in expenses amounting to 1,382 million euros before taxes in 2021 (see Note 24), reflected in "Personnel expenses" to the Consolidated Financial Statements).

Impairment of goodwill of Telefónica del Perú

In 2021 an impairment loss was recognized on the goodwill allocated to Telefónica del Perú, amounting to 393 million euros (see Note 7).

Note 3. Accounting policies

As stated in Note 2, the Group's consolidated financial statements have been prepared in accordance with IFRSs and interpretations issued by the International Accounting Standards Board (IASB).

Accordingly, only the most significant accounting policies used in preparing the accompanying consolidated financial statements, in light of the nature of the Group's activities, are set out below, as well as the accounting policies applied where IFRSs permit a policy choice, and those that are specific to the sector in which the Group operates.

a) Hyperinflationary economies

Venezuela has been considered a hyperinflationary economy since 2009. In light of the worsening of the economic and political crisis in Venezuela and in the absence of official rates that are representative of the situation in the country, the Group maintains as a policy for the purposes of the consolidated financial statements the estimation of an exchange rate, known as synthetic exchange rate, that matches the progression of inflation and reflects the economic and financial position of the Group's Venezuelan operations in a more accurate way.

The synthetic exchange rate is calculated considering the inflation rates that are published. On an annual basis, these rates are 174.3%, 686.4% and 2,959.8% for 2022, 2021 and 2020, respectively.

The exchange rate used to translate inflation-adjusted bolivar-denominated items in the consolidated financial statements is the synthetic exchange rate as of the closing date of each reporting period, amounting to 45.18 digital bolivars per U.S. dollar, 16.47 digital bolivars per U.S. dollar and 2,094,405 bolivars per U.S. dollar as of December 31, 2022, 2021 and 2020, respectively. In turn, the official reference exchange rate at December 31, 2022 was 17.489 VED/USD (4.597 VED/USD and 1,107,199VES/USD at December 31, 2021 and 2020, respectively).

The use of a synthetic exchange rate versus the official reference exchange rate does not have a significant impact given the contribution of Telefónica Venezolana to the consolidated financial position and to the Group's results and cash flows for the year.

In 2018 Argentina became a hyperinflationary economy. In order to restate its financial statements, the Company uses the series of indices defined by resolution JG No. 539/18 issued by the Federación Argentina de Consejos Profesionales de Ciencias Económicas (FACPCE), based on the National Consumer Price Index (IPC) published by the Instituto Nacional de Estadística y Censos (INDEC) of the Argentine Republic and the Wholesale Internal Price Index (IPIM) published by FACPCE. The cumulative index at December 31, 2022, 2021 and 2020 is 1,134.6%, 582.5% and 385.9%, respectively, while on an annual basis the index for 2022 is 95% (51% and 36% in 2021 and 2020, respectively).

The exchange rate used to translate inflation-adjusted items denominated in Argentine pesos in the 2022 financial statements is the closing exchange rate as of December 31, 2022 which was 189.08 Argentine pesos per euro (116.37 and 103.23 Argentine pesos per euro at December 31, 2021 and 2020, respectively).

The Group includes in a single line item ("Translation Differences") all the equity effects derived from hyperinflation. This is as follows: (a) the restatement for inflation of the financial statements of the Group companies operating in hyperinflationary economies, and (b) the effects of translating their respective financial statements into euros using the exchange rate at the end of the period.

b) Translation methodology

The income statements and statements of cash flows of the Telefónica Group's foreign subsidiaries (except Venezuela and Argentina) were translated into euros at the average exchange rates for the year, as a rate that approximates the exchange rates at the dates of the transactions.

c) Goodwill

After initial recognition, goodwill is carried at cost, less any accumulated impairment losses. Goodwill is recognized as an asset denominated in the currency of the company acquired and is tested for impairment annually at the least, or more frequently, if there are certain events or changes indicating the possibility that the carrying amount may not

be fully recoverable. The potential impairment loss is determined by assessing the recoverable amount of the cash generating unit (or group of cash generating units) to which the goodwill is allocated from the acquisition date.

d) Intangible assets

Intangible assets are carried at acquisition or production cost, less any accumulated amortization or any accumulated impairment losses.

Intangible assets are amortized on a straight-line basis according to the following:

- Licenses granted to the Telefónica Group by various public authorities to provide telecommunications services and the value allocated to licenses held by certain companies at the time they were included in the Telefónica Group (“Service concession arrangements and licenses”) are amortized on a straight-line basis over the duration of related licenses from the moment commercial operation begins.
- The allocation of acquisition costs attributable to customers acquired in business combinations, as well as the acquisition value of these types of assets in a third-party transaction for consideration (Customer base) are amortized on a straight-line basis over the estimated period of the customer relationship. The term length is between 4 and 14 years, based on the customer segment (residential, business, etc.) and the business model (prepaid, postpaid, etc.).
- Software is amortized on a straight-line basis over its useful life, generally estimated to be between two and five years.

e) Property, plant and equipment

Property, plant and equipment is carried at cost less any accumulated depreciation and any accumulated impairment in value.

Cost includes, among others, direct labor used in installation and the allocable portion of the indirect costs required for the related asset. The latter two items are recorded as revenue under the concept Own work capitalized of the line item Other income.

Interest and other financial expenses incurred and directly attributable to the acquisition or construction of qualifying assets are capitalized. Qualifying assets for the Telefónica Group are those assets that require a period of at least 18 months to bring the assets to the condition necessary for their intended use or sale.

The Group’s subsidiaries depreciate their property, plant and equipment, from the time they can be placed in service, amortizing the cost of the assets, net of their residual values on a straight-line basis over the assets’ estimated useful lives, which are calculated in accordance with technical studies that are revised periodically in light of technological advances and the rate of dismantling, as follows:

	Years of estimated useful life
Buildings	25 – 40
Plant and machinery	5 – 25
Furniture, tools and other items	2 – 10

f) Impairment of non-current assets

Non-current assets, including goodwill, intangible assets and investments in associates and joint ventures, are assessed at each reporting date for indicators of impairment. Whenever such indicators exist, or in the case of assets which are subject to an annual impairment test, the recoverable amount is estimated. An asset’s recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future post-tax cash flows deriving from the use of the asset or its cash generating unit, as applicable, are discounted to their present value using a post-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset, provided that the result obtained is the same that would be obtained by discounting pre-tax cash flows at a pre-tax discount rate.

The Group bases the calculation of impairment on the approved business plans of the various cash generating units to which the assets are allocated. The projected cash flows, based on the approved strategic business plans, cover a period of five years. Starting with the sixth year, an expected constant growth rate is applied.

g) Lease agreements

The determination of whether an arrangement is, or contains a lease is based on the substance of the agreement and requires an assessment of whether the fulfillment of the arrangement is dependent on the use of a specific asset and the agreement conveys a right to the use of the asset.

At the inception date of the lease (i.e. the date when the underlying asset is available for use), a lessee recognizes a right of use asset that represents the right to use the underlying asset over the term of the lease, and a lease liability for the present value of the lease payments payable over the lease term – discounted using the incremental borrowing rate at the start date of the lease.

Rights of use assets are measured at cost, less accumulated depreciation and impairment losses, and are adjusted for any remeasurement of lease liabilities. The cost of rights of use assets includes the amount of initial direct costs incurred and lease payments made before the commencement date less incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the estimated useful life of the underlying asset and the lease term.

Lease payments include fixed payments (including in-substance fixed payments) less any lease incentive receivable, variable lease payments that depend on an index or rate, and amounts expected to be paid as residual value guarantees. Similarly, the measurement of the lease liability includes the exercise price of a purchase option, if the lessee is reasonably certain to exercise that option, and payments of penalties for early termination, if the lease term reflects the lessee exercising such cancellation option. After the commencement date, the amount of the lease liabilities is increased to reflect the accrual of interest and reduced for the payments made. In addition to this, the carrying amount of the lease liability is remeasured in certain cases, such as changes in the lease term, changes in future lease payments resulting from a change in an index or rate used to determine those payments. The amount of such remeasurement is generally recognized against an adjustment to the right-of-use asset.

The Group uses the "low value" asset lease recognition exemption for office equipment and the short-term lease recognition exemption for all leases with a term of 12 months or less. Therefore, lease payments in such cases are recognized as an expense on a straight-line basis over the lease term.

The Group recognizes non-lease components separately from lease components for those classes of assets in which non-lease components are significant with respect to the total value of the arrangement.

The Group determines the lease term as the non-cancellable term of the contract, together with any period covered by an extension (or termination) option whose exercise is discretionary for the Group, if there is reasonable certainty that it will be exercised (or it will not be exercised). In its assessment, the Group considers all available information by asset class in the industry and evaluates all relevant factors (technology, regulation, competition, business model) that create an economic incentive to exercise or not a renewal/cancellation option. Notably, the Group takes into consideration the time horizon of the strategic planning of its operations. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control that may affect its ability to exercise (or not to exercise) an option to extend or terminate (for example, a change in business strategy).

Where the Group acts as a lessor, leases are classified between operating and finance leases. Leases in which the lessor retains a significant portion of the risks and rewards of ownership of the leased asset are treated as operating leases. Otherwise, the lease is a finance lease.

h) Investment in associates and joint arrangements

The Group assesses whether it has significant influence not only on the basis of its ownership percentage but also on the existence of qualitative factors such as representation on the board of directors of the investee, its participation in decision-making processes, interchange of managerial personnel and access to technical information.

The Group assesses rights and obligations agreed to by the parties to a joint arrangement and, when relevant, other facts and circumstances in order to determine whether the joint arrangement in which it is involved is a joint venture or a joint operation.

Upon the sale or contribution of a controlled business to an associate or joint venture, the Group measures and recognizes any retained interest at its fair value. Any difference between the carrying amount of the business

contributed and the fair value of the retained investment and the consideration received from disposal is recognized in full in profit or loss.

i) Financial assets and liabilities

Financial Assets

All regular way purchases and sales of financial assets are recognized in the statement of financial position on the trade date, i.e. the date that the Company commits to purchase or sell the asset.

The Group applies an impairment model for financial assets based on expected credit losses, using a simplified method for certain short- and long-term assets (commercial receivables, lease receivables and contractual assets).

Under this simplified approach, credit impairment is recognized by reference to expected credit losses over the life of the asset. For this purpose the Group uses matrices based on historical bad debt experience by geographical area on a portfolio segmented by customer category according to credit pattern. The matrix for each category has a defined time horizon divided into intervals in accordance with the collection management policy and is fed with historical data that covers at least 24 collection cycles. This data is updated on a regular basis. Based on the information observable at each close, the Group assesses the need to adjust the rates resulting from these matrices, considering current conditions and future economic forecasts.

Derivative financial instruments and hedge accounting

The accounting treatment of any gain or loss resulting from changes in the fair value of a derivative depends on whether the derivative in question meets all the criteria for hedge accounting and, if appropriate, on the nature of the hedge.

Changes in fair value of derivatives that qualify as fair value hedging instruments are recognized in the income statement, together with changes in the fair value of the hedged asset or liability attributable to the risk being hedged.

Changes in the fair value of derivatives that qualify and have been designated as cash flow hedges, which are highly effective, are recognized in equity. The ineffective portion is recognized immediately in the income statement. Fair value changes recognized in equity arising from hedges that relate to firm commitments or forecast transactions that result in the recognition of non-financial assets or liabilities are included in the initial carrying amount of those assets or liabilities. Otherwise, changes in fair value previously recognized in equity are recognized in the income statement in the period in which the hedged transaction affects profit or loss.

An instrument designated to hedge foreign currency exposure from a net investment in a foreign operation is accounted for in a similar manner to cash flow hedges.

When the Group chooses not to apply hedge accounting criteria, gains or losses resulting from changes in the fair value of derivatives are taken directly to the income statement. In this respect, transactions used to reduce the exchange rate risk of income contributed by foreign subsidiaries are not treated as hedging transactions.

j) Inventories

Materials stored for use in investment projects and inventories for consumption and replacement are valued at the lower of weighted average cost and net realizable value.

Inventories include audio-visual rights which will generally be consumed in a period of less than twelve months, and advanced payments to suppliers for future rights, as well as own content whose production cycle will in no case exceed thirty-six months.

The cost of film, documentary, short film and series rights acquired from third parties is charged to the income statement on a straight-line basis from the time of first broadcasting or release until the completion of the rights.

Broadcasting rights to football and motor sports events, including their inherent production costs, are charged to the income statement on a straight-line basis over twelve months from the start of the season, while rights to other premium sports are charged over the period of the competition. All other sports rights are recognized in the income statement upon first broadcast.

In-house produced programs and series and program titles are charged at the time of their broadcast or up to thirty-six months from the date of release, depending on their nature and broadcasting strategy. The cost of in-house productions that the Group expects to recover through sale to third parties is recognized as an intangible asset.

The cost of broadcasting rights that have expired or whose recovery value is estimated to be lower than the acquisition cost is recognized directly as an expense.

k) Pensions and other employee obligations

Provisions required to cover the accrued liability for defined benefit pension plans are determined using the projected unit credit actuarial valuation method. The calculation is based on demographic and financial assumptions determined at a country level, and in consideration of the macroeconomic environment. The discount rates are determined based on high quality market yield curves. Plan assets are measured at fair value.

Provisions for post-employment benefits (e.g. early retirement or other) are calculated individually based on the terms agreed with the employees. In some cases, these may require actuarial valuations based on both demographic and financial assumptions.

l) Revenues and expenses

The Telefónica Group revenues are derived principally from providing the following telecommunications services: traffic, connection fees, regular (normally monthly) network usage fees, interconnection, network and equipment leasing, handset sales and other digital services such as Pay TV and value-added services or maintenance. Products and services may be sold separately or bundled in promotional packages.

Revenues from calls carried on Telefónica's networks (traffic) entail an initial call establishment fee plus a variable call rate, based on call length, distance and type of service. Both fixed and wireless traffic is recognized as revenue as service is provided. For prepaid calls, the amount of unused traffic generates deferred revenues presented in Contractual liabilities on the statement of financial position.

Revenues from traffic sales and services at a fixed rate over a specified period of time (flat rate) are recognized on a straight-line basis over the term covered by the rate paid by the customer.

Installation fees are taken to the income statement on a straight-line basis over the related period. Equipment leases and other services are taken to the income statement as they are consumed.

Interconnection revenues from fixed-wireless and wireless-fixed calls and other customer services are recognized in the period in which the calls are made.

Revenues from handset and equipment sales are recognized once the sale is considered complete, i.e., generally when delivered to the end customer.

When the Group is in an intermediary position between a supplier/vendor and an end customer, it must determine if it is supplying the product or service as the principal in the transaction or if it is acting as an agent on behalf of the supplier (manufacturer, wholesaler). The distinction determines who controls the goods or services being provided and who has the primary obligation to satisfy the performance obligation. This assessment affects the timing and amount of revenue recognized in the financial statements, either on a gross basis as the principal or on a net basis as the agent, representing the margin earned by the Group for arranging the transaction between the principal and the customer. This is particularly relevant for the Group in connection with digital services such as streaming TV content and cloud-based software.

For bundled packages that include multiple elements sold in the fixed, wireless, Internet and television businesses it is determined whether it is necessary to identify the separate performance obligations and apply the corresponding revenue recognition policy to each one. Total package revenues are allocated among the identified performance obligations based on their respective standalone selling prices.

As connection or initial activation fees, or upfront non-refundable fees, are not separately identifiable performance obligations in these types of packages, any consideration received from the customer for these items is allocated to the remaining elements.

When the customer has a right of return, the agreed consideration is considered variable. The Group estimates the amount of variable consideration to which it is entitled using the expected value method (probability-weighted

possible amounts), considering all historical, current and forecast information that is reasonably available, and only to the extent that it determines that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

Expenses relating to customer contracts (mainly, commissions payable to dealers for customer acquisitions) are recognized as an asset to the extent that they are incremental and are expected to be recovered. Subsequently, these costs are amortized over the same term as the revenues associated with such contract are recognized, unless the expected amortization period is one year or less, in which case they are expensed as incurred.

As part of our strategy, the Group has increased its use of renewable energy through power purchase agreements (PPAs) to purchase energy from sustainable sources, such as wind and solar. These contracts often have a long term and provide the Group with a mechanism to ensure the supply of green energy at fixed prices. When these arrangements involve physical delivery of electricity and are entered into for the purpose of receiving the energy for the entity's expected purchase, sale or usage requirements (i.e. volume agreed does not exceed actual and expected power needs), the contract is for "own use" and is generally accounted for as power purchases or sales when the underlying transactions take place.

m) Non-current assets held for sale

The Group classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell and are presented separately in the statement of financial position as "Non-current assets and disposal groups held for sale" and "Liabilities associated with non-current assets and disposal groups held for sale". Once classified as held for sale property, plant and equipment and intangible assets (including right-of-use assets) are no longer depreciated or amortized.

The criteria for held for sale classification is regarded as met only when the Group determines the sale to be highly probable: management is committed to a decision to sell and all actions required to complete the sale indicate that it is unlikely that significant changes to the sale will be made or that the decision will be withdrawn. In addition, the asset or disposal group is available for immediate sale in its present condition (subject only to terms that are usual and customary for such transactions) and the sale is expected to be completed within one year from the date of the classification.

n) Use of estimates

The key assumptions concerning the future and other relevant sources of uncertainty in estimates at the reporting date that could have a significant impact on the consolidated financial statements within the next financial year are discussed below.

A significant change in the facts and circumstances on which these estimates and related judgments are based could have a material impact on the Group's results and financial position. Accordingly, sensitivity analysis are disclosed for the most relevant situations (see Notes 7 and 24).

Non-current assets and goodwill

The accounting treatment of investments in non-current assets such as property, plant and equipment, intangible assets and interests in associates and joint ventures, entails the use of estimates to determine the useful life for depreciation and amortization purposes and to assess fair value at their acquisition dates for assets acquired in business combinations.

Determining useful life requires making estimates in connection with future technological developments and alternative uses for assets. There is a significant element of judgment involved in making technological development assumptions, since the timing and scope of future technological advances are difficult to predict.

Also, upon the sale or contribution of a controlled business to an associate or joint venture, the Group measures and recognizes any retained interest at its fair value. The fair value assigned to the retained investment is determined on the basis of its business plan, including significant judgments when considering significant assumptions such as long-term OIBDA margin, long-term capital expenditure ratio, discount rate and perpetuity growth rate which would be significantly affected by the future trends in the economic, competitive, regulatory and technological environment.

The decision to recognize an impairment loss involves developing estimates that include, among others, an analysis of the causes of the potential impairment, as well as its timing and expected amount. Furthermore, additional factors, such as technological obsolescence, the suspension of certain services and other circumstantial changes, which highlight the need to evaluate a possible impairment, are taken into account.

The Telefónica Group evaluates its cash-generating units' performance on a regular basis to identify potential impairments of goodwill and other non-current assets. Determining the recoverable amount of the cash-generating units also entails the use of assumptions and estimates and requires a significant element of judgment.

Deferred income taxes

The Group assesses the recoverability of deferred tax assets based on estimates of future earnings, and of all the options available to achieve an outcome, it considers the most efficient one in tax terms within the legal framework the Group is subject to. Such recoverability ultimately depends on the Group's ability to generate taxable earnings over the period for which the deferred tax assets remain deductible. This analysis is based on the estimated schedule for reversing deferred tax liabilities, as well as estimates of taxable earnings, which are sourced from internal projections that are continuously updated to reflect the latest trends.

The recognition of tax assets and liabilities depends on a series of factors, including estimates as to the timing and realization of deferred tax assets and the projected tax payment schedule. Actual Group company income tax receipts and payments could differ from the estimates made by the Group as a result of changes in tax legislation, the outcome of underway tax proceedings or unforeseen future transactions that could affect tax balances.

Provisions

Provisions are recorded when, at the end of the period, we have a present obligation as a result of past events, whose settlement requires an outflow of resources that is considered probable and can be measured reliably. This obligation may be legal or constructive, arising from, but not limited to, regulation, contracts, common practice or public commitments, which have created a valid expectation for third parties that we will assume certain responsibilities. The amount recorded is the best estimation performed by the management in respect of the expenditure that will be required to settle the obligations, considering all the information available at the closing date, including the advice of external experts, such as legal advisors or consultants.

Should we be unable to reliably measure the obligation, no provision would be recorded and information would then be presented in the notes to the Consolidated Financial Statements.

Because of the inherent uncertainties in this estimation, actual expenditures may be different from the originally estimated amount recognized.

Revenue recognition

Bundled offers

Bundled offers that combine different elements are assessed to determine whether it is necessary to separate the different identifiable components and apply the corresponding revenue recognition policy to each element. Total package revenues are allocated among the identified elements based on their respective standalone selling prices.

Determining standalone selling prices for each identified element requires estimates that are complex due to the nature of the business.

A change in estimates of standalone selling prices could affect the apportionment of revenue among the elements and, as a result, the timing of recognition of revenues.

Leases

Accounting for rights and obligations as a lessee under a lease contract requires the use of estimations to determine the lease term in contracts that include extension options or early termination options.

Determining the lease term involves making estimates over the time horizon of the Group's strategic planning process with respect to relevant factors such as expected technological progress, possible regulatory developments, market and competition trends or changes in the business model. The assumptions regarding these variables involve a significant degree of judgment to the extent that the timing and nature of future changes are difficult to anticipate.

Due to the uncertainties inherent to these estimates, changes in the assumptions made in respect of uncertain matters when determining the lease term of a lease contract may have an impact on the amounts of the right of use assets and lease liabilities recognized on the basis of the estimates made by the Group.

o) New IFRS and interpretations of the International Financial Reporting Interpretations Committee (IFRIC)

The accounting policies applied in the preparation of the consolidated financial statements for the year ended December 31, 2022 are consistent with those used in the preparation of the Group's consolidated annual financial statements for the year ended December 31, 2021, with the exception of the following new standards and amendments to existing standards issued by the IASB, which are mandatory for annual periods beginning on or after January 1, 2022.

The application of these amendments for the current reporting period did not have a significant impact on the consolidated financial statements of the Group. The Group did not have to change its accounting policies or make retrospective adjustments as a result of adopting these amendments.

Amendments to IAS 37: Costs of fulfilling a contract

The amendments to IAS 37 clarify that when assessing whether a contract is onerous, an entity needs to include all unavoidable costs that relate directly to a contract, including both incremental costs and an allocation of costs directly related to fulfilling contract activities. The Group applied the amendments to the contracts for which it had not fulfilled all of its obligations at the beginning of the reporting period.

Amendments to IFRS 3: Reference to Conceptual Framework

Minor amendments were made to update the references to the Conceptual Framework for Financial Reporting and to add an exception to the recognition principle in IFRS 3 Business Combinations regarding liabilities and contingent liabilities within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and Interpretation 21 Levies. The exception requires entities to apply the criteria in IAS 37 or IFRIC 21, respectively, instead of the Conceptual Framework, to determine whether a present obligation exists at the acquisition date. The amendments to IFRS 3 also clarify that contingent assets do not qualify for recognition at the acquisition date.

Amendments to IAS 16: Proceeds Before Intended Use

The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment, any proceeds of the sale of items produced while the entity is preparing the asset for its intended use (including while assessing technical and physical performance of the asset). Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss.

Annual Improvements to IFRS Standards 2018-2020

As part of the annual improvements finalized in May 2020, IFRS 9 Financial Instruments was amended to clarify which fees should an entity include when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf.

New standards and amendments to standards issued but not effective as of December 31, 2022.

At the date of preparation of the consolidated financial statements, the following IFRS and amendments to existing standards had been published, but their application is not mandatory:

Standards and amendments		Mandatory application: annual periods beginning on or after
IFRS 17 (and subsequent amendments)	<i>Insurance Contracts</i>	January 1, 2023
Amendments to IAS 1	<i>Disclosure of Accounting Policies</i>	January 1, 2023
Amendments to IAS 8	<i>Definition of Accounting Estimates</i>	January 1, 2023
Amendments to IAS 12	<i>Deferred Tax related to Assets and Liabilities Arising from a Single Transaction</i>	January 1, 2023
Amendments to IAS 1	<i>Classification of Liabilities as Current or Non-current</i>	January 1, 2024
Amendments to IAS 1	<i>Non-current Liabilities with Covenants</i>	January 1, 2024
Amendments to IFRS 16	<i>Lease Liability in a Sale and Leaseback</i>	January 1, 2024

Based on the assessment performed to date, the Group estimates that the adoption of these new pronouncements will not have a significant impact on the consolidated financial statements in the initial period of application. In particular, the Group has made further progress in its assessment to identify contracts that meet the definition of insurance contracts and are therefore within the scope of IFRS 17 Insurance Contracts, but the Group estimates that the future application of the new requirements will not have a significant impact on consolidated equity upon first-time adoption.

Note 4. Segment information

In 2022 the Telefónica Group is reporting financial information, both internally and externally, according to the following segments: Telefónica Spain, VMO2 (recorded by the equity method), Telefónica Germany, Telefónica Brazil and Telefónica Hispam (formed by the Group's operators in Colombia, Mexico, Venezuela, Ecuador, Argentina, Chile, Peru and Uruguay).

During 2021, compared to 2020, the Telefónica Group changed its reporting segments as follows:

(i) On June 1, 2021, upon the establishment of the VMO2 joint venture (whose results are accounted for under the equity method), the former Telefónica United Kingdom segment was replaced by the new VMO2 segment (see notes 2 and 10). The 2021 results include the consolidation of Telefónica United Kingdom from January 1 to June 1, and the equity accounting of 50% of the net result of VMO2 from June 1 to December 31 (see Note 10). The gain registered on the establishment of VMO2, amounting to 4,460 million euros (see notes 2 and 26), are recorded in "Other companies".

(ii) The Telxius Group ceased to be a reporting segment as a result of the sale of the telecommunications towers divisions in Europe and Latin America (see Note 2). The Telxius Group's results as well as the gain obtained for the sale of the telecommunications towers divisions, amounting to 6,099 million euros (see notes 2 and 26), were recorded in "Other companies".

The impairment losses on goodwill and other assets of Telefónica Argentina recorded in 2020, the impairment loss on goodwill of Telefónica del Perú in 2021 (see Note 7) and the impairment losses on other assets of Telefónica Argentina in 2022 (see notes 6 and 8), are included in the Telefónica Hispam segment.

The segments referred to above include the information relating to the fixed, mobile, cable, data, internet, television and other digital services businesses provided in each country. Intersegment transactions are carried out as if on an arm's length basis.

Information relating to other Group companies not specifically included in these segments is reported under "Other companies" (see Appendix I), which includes Telefónica, S.A. and other holding companies, as well as companies whose main purpose is to provide cross-sectional services to Group companies and other operations not included in the segments. The Incremental Group and BE-terna Group, acquired in 2022, and Cancom Group, acquired in 2021 (see Note 5), are reported within "Other companies". "Other companies" also includes the share of results of investments accounted for by the equity method corresponding to the fiber optic companies incorporated in 2021 and 2022 (see Note 10).

The Group centrally manages borrowing activities, mainly through Telefónica, S.A. and other companies (see Note 19, Appendix III and Appendix V), so most of the Group's financial assets and liabilities are reported under Other companies. In addition, Telefónica, S.A. is the head of the Telefónica tax group in Spain (see Note 25). Therefore, a significant part of the deferred tax assets and liabilities is included under Other companies. For these reasons, the results of the segments are disclosed through operating income.

The "Eliminations" of the Group at OIBDA level mainly reflected the leases of Telxius Group (in 2020 and 2021, up to the date of sale of these companies) to other Telefónica Group companies, due to the asymmetry in accounting between lessor and lessee under IFRS 16. This impact is mostly offset at operating income level.

Revenues and expenses arising from intra-group invoicing for the use of the trademark and management services were eliminated from the operating results of each Group segment. The results of the holding companies also exclude dividends from Group companies and impairments of investments in Group companies. These adjustments have no impact on the Group's consolidated results. In addition, segment reporting considers the impact of the purchase price allocation to the assets acquired and the liabilities assumed by the companies included in each segment. The assets and liabilities presented in each segment are those managed by the heads of each segment, regardless of their legal structure.

Operating income before depreciation and amortization (OIBDA) is calculated by excluding solely depreciation and amortization from operating income. OIBDA is used to track the performance of the business and to establish operating and strategic targets of the Telefónica Group companies. OIBDA is a commonly reported measure and is widely used among analysts, investors and other interested parties in the telecommunications industry, although not a measure explicitly defined in IFRS, and therefore, may not be comparable to similar indicators used by other companies. OIBDA should not be considered as a substitute for operating income.

The following table presents income, CapEx information (capital expenditures in intangible assets and property, plant and equipment, see Notes 6 and 8) and acquisitions of rights of use (see Note 9) regarding the Group's operating segments:

2022								
Millions of euros	Telefónica Spain	VMO2	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Revenues	12,497	—	8,224	8,870	9,141	3,243	(1,982)	39,993
External revenues	12,224	—	8,195	8,854	9,026	1,685	9	39,993
Intersegment revenues	273	—	29	16	115	1,558	(1,991)	—
Other operating income and expenses ⁽¹⁾	(7,909)	—	(5,666)	(5,138)	(7,183)	(3,149)	1,904	(27,141)
OIBDA	4,588	—	2,558	3,732	1,958	94	(78)	12,852
Depreciation and amortization	(2,157)	—	(2,295)	(2,369)	(1,799)	(218)	42	(8,796)
Operating income	2,431	—	263	1,363	159	(124)	(36)	4,056
Share of income (loss) of investments accounted for by the equity method	(15)	292	—	—	(19)	(41)	—	217
CapEx	1,550	—	1,209	1,795	1,058	212	(5)	5,819
Acquisitions of rights of use	724	—	594	596	514	17	3	2,448

⁽¹⁾ Other operating income and expenses includes "Other income", "Supplies", "Personnel expenses" and "Other expenses".

2021									
Millions of euros	Telefónica Spain	Telefónica United Kingdom	VMO2	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Revenues	12,417	2,628	—	7,765	6,910	8,362	3,059	(1,864)	39,277
External revenues	12,156	2,609	—	7,738	6,897	8,258	1,628	(9)	39,277
Intersegment revenues	261	19	—	27	13	104	1,431	(1,855)	—
Other operating income and expenses ⁽¹⁾	(9,040)	(1,709)	—	(5,341)	(3,772)	(6,644)	7,589	1,623	(17,294)
OIBDA	3,377	919	—	2,424	3,138	1,718	10,648	(241)	21,983
Depreciation and amortization	(2,153)	—	—	(2,394)	(1,918)	(1,873)	(356)	297	(8,397)
Operating income	1,224	919	—	30	1,220	(155)	10,292	56	13,586
Share of (loss) income of investments accounted for by the equity method	(2)	—	(103)	—	—	(6)	(16)	—	(127)
CapEx	1,815	933	—	1,284	2,069	978	206	(18)	7,267
Acquisitions of rights of use⁽²⁾	482	389	—	833	489	387	113	(254)	2,439

⁽¹⁾ Other operating income and expenses includes "Other income", "Supplies", "Personnel expenses" and "Other expenses".

⁽²⁾ Additionally, rights of use in the amount of 2,633 million euros were recorded in 2021 following the sale of the tower division of Telxius (see Note 9).

2020								
Millions of euros	Telefónica Spain	Telefónica United Kingdom	Telefónica Germany	Telefónica Brazil	Telefónica Hispan	Other companies	Eliminations	Total Group
Revenues	12,401	6,708	7,532	7,422	7,922	2,647	(1,556)	43,076
External revenues	12,118	6,666	7,500	7,406	7,786	1,610	(10)	43,076
Intersegment revenues	283	42	32	16	136	1,037	(1,546)	—
Other operating income and expenses ⁽¹⁾	(7,355)	(4,644)	(5,223)	(4,234)	(6,932)	(2,288)	1,098	(29,578)
OIBDA	5,046	2,064	2,309	3,188	990	359	(458)	13,498
Depreciation and amortization	(2,184)	(389)	(2,394)	(1,965)	(2,274)	(468)	315	(9,359)
Operating income	2,862	1,675	(85)	1,223	(1,284)	(109)	(143)	4,139
Share of income (loss) of investments accounted for by the equity method	(4)	—	—	—	—	6	—	2
CapEx	1,408	913	1,094	1,372	833	454	(213)	5,861
Acquisitions of rights of use	138	116	1,159	768	364	378	(909)	2,014

⁽¹⁾Other operating income and expenses includes “Other income”, “Supplies”, “Personnel expenses” and “Other expenses”.

The table below shows the income, CapEx and acquisitions of rights of use of VMED O2 UK (VMO2) in 2022 and 2021 (see Note 2). VMO2 is a joint venture 50% owned by Telefónica and Liberty Global and is recorded under the equity method (see Note 10). The tables below show the information of the joint venture at 100% and the reconciliation with the Telefónica Group's share of income (loss) accounted for by the equity method.

VMO2		
Millions of euros	January-December, 2022	June 1 to December 31, 2021
Revenues	12,155	7,223
Other operating income and expenses	(7,754)	(4,773)
OIBDA	4,401	2,450
Depreciation and amortization	(4,170)	(2,395)
Operating income	231	55
Share of income (loss) of investments accounted for by the equity method	1	—
Financial income	24	27
Financial expenses	(1,020)	(504)
Realised and unrealised gains on derivative instruments, net	2,567	489
Foreign currency transaction losses, net	(1,296)	(367)
Net financial expense	275	(355)
Result before taxation	507	(300)
Income tax	(15)	65
Result for the period (100% VMO2)	492	(235)
50% attributable to Telefónica Group	246	(117)
Share-based compensation	14	14
Other adjustments	32	—
Share of income (loss) of investments accounted for by the equity method	292	(103)
Capital expenditures (CapEx)	2,707	1,508
Acquisitions of rights of use	118	75

The following table presents main assets and liabilities by segment:

2022								
Millions of euros	Telefónica Spain	VMO2	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Fixed assets	14,285	—	11,602	18,217	7,870	2,237	(9)	54,202
Rights of use	1,722	—	3,277	2,048	1,169	100	(37)	8,279
Investments accounted for by the equity method	252	10,779	—	—	146	410	—	11,587
Financial assets and other non-currents assets	875	—	992	984	1,578	6,082	(2,410)	8,101
Deferred tax assets	2,395	—	463	485	612	929	—	4,884
Other current financial assets	32	—	34	162	222	7,435	(5,441)	2,444
Non-current assets and disposal groups held for sale	—	—	—	—	—	7	—	7
Total allocated assets	27,917	10,779	19,142	24,875	15,951	26,288	(15,310)	109,642
Non-current financial liabilities	2,089	—	1,510	653	2,502	30,425	(2,120)	35,059
Non-current lease liabilities	1,317	—	2,663	1,531	1,115	45	(14)	6,657
Deferred tax liabilities	95	—	274	1,032	744	922	—	3,067
Current financial liabilities	1,840	—	128	350	4,120	8,449	(10,867)	4,020
Current lease liabilities	392	—	597	629	402	19	(19)	2,020
Liabilities associated with non-current assets and disposal groups held for sale	—	—	—	—	—	—	—	—
Total allocated liabilities	16,782	—	10,246	9,437	13,861	42,869	(15,261)	77,934

2021								
Millions of euros	Telefónica Spain	VMO2	Telefónica Germany	Telefónica Brazil	Telefónica Hispam	Other companies	Eliminations	Total Group
Fixed assets	14,499	—	12,124	15,056	7,637	1,667	(14)	50,969
Rights of use	1,433	—	3,349	1,701	1,064	99	(67)	7,579
Investments accounted for by the equity method	263	12,129	—	—	128	253	—	12,773
Financial assets and other non-currents assets	549	—	883	888	1,001	7,428	(3,402)	7,347
Deferred tax assets	2,345	—	433	454	713	1,671	—	5,616
Other current financial assets	40	—	70	56	838	8,379	(5,548)	3,835
Non-current assets and disposal groups held for sale	—	—	—	—	102	256	—	358
Total allocated assets	24,971	12,129	19,953	21,461	15,628	29,544	(14,473)	109,213
Non-current financial liabilities	2,140	—	1,627	11	2,778	31,288	(2,554)	35,290
Non-current lease liabilities	1,082	—	2,781	1,317	1,192	55	(36)	6,391
Deferred tax liabilities	119	—	291	1,040	594	558	—	2,602
Current financial liabilities	1,019	—	89	199	4,620	9,669	(8,591)	7,005
Current lease liabilities	378	—	548	460	295	14	(16)	1,679
Liabilities associated with non-current assets and disposal groups held for sale	—	—	—	—	—	134	—	134
Total allocated liabilities	17,042	—	10,819	7,600	14,306	45,129	(14,367)	80,529

The detail of assets and liabilities of VMO2 is as follows (amounts corresponding to 100% of the company, see Note 10):

VMO2		
Millions of euros	December 2022	December 2021
Fixed assets	42,576	46,258
Rights of use	862	1,058
Financial assets and other non-currents assets	2,763	1,348
Deferred tax assets	79	115
Other current financial assets	511	214
Total assets	50,062	52,333
Non-current financial liabilities	19,668	19,185
Non-current lease liabilities	725	885
Deferred tax liabilities	1	9
Current financial liabilities	3,248	2,841
Current lease liabilities	221	219
Total liabilities	28,626	28,198

The composition of segment revenues is as follows:

Millions of euros	2022				2021				2020			
	Fixed	Mobile	Others and elims.	Total	Fixed	Mobile	Others and elims.	Total	Fixed	Mobile	Others and elims.	Total
Country by segments												
Spain ^(*)				12,497				12,417				12,401
United Kingdom	—	—	—	—	96	2,532	—	2,628	232	6,476	—	6,708
Germany	806	7,394	24	8,224	814	6,942	9	7,765	785	6,730	17	7,532
Brazil	2,764	6,106	—	8,870	2,300	4,610	—	6,910	2,531	4,891	—	7,422
Hispan	3,138	6,003	—	9,141	2,907	5,444	11	8,362	2,836	5,070	16	7,922
Other and inter-segment eliminations			1,261	1,261			1,195	1,195			1,091	1,091
Total Group				39,993				39,277				43,076

Note: In the countries of Telefónica Hispan segment with separate fixed and mobile operating companies, intercompany revenues were not considered.

(*) The detail of revenues for Telefónica Spain is shown in the table below.

Given the convergence reached at Telefónica Spain due to the high penetration of convergent offers in Telefónica Spain, the revenue breakdown by fixed and mobile is less relevant in this segment. For this reason, management believes that the revenue breakdown shown below is more meaningful.

Millions of euros			
Telefónica Spain	2022	2021	2020
Retailers	9,662	9,699	9,906
Wholesalers, mobile handsets sales and others	2,835	2,718	2,495
Total	12,497	12,417	12,401

Note 5. Business combinations

2022

Acquisition of mobile assets of Oi Group

On April 20, 2022, the closing of the transaction related to the Purchase Agreement for Acquisition of UPI Mobile Assets of Oi Group took place, and Telefónica Brasil acquired, on such date, all the shares of the company Garliava RJ Infraestrutura e Redes de Telecomunicações S.A. (Garliava), to which the mobile assets of Oi Group assigned to Telefónica Brasil had been contributed, under the segregation plan stated in the Oi Agreement (see Note 29).

The mobile assets of Oi Group finally assigned to Telefónica Brasil were the following:

- Customers: approximately 12.5 million (equivalent to 30% of the total customer base of the mobile assets of Oi Group) – according to ANATEL’s February 2022 data;
- Spectrum: 43 MHz as national population-weighted average (46% of the radiofrequency of the mobile assets of Oi Group); and
- Infrastructure: contracts for the use of approximately 2.7 thousand sites of mobile access (corresponding to 19% of the sites of the mobile assets of Oi Group).

This transaction brings benefits to the Brazilian telecommunications sector, expanding the capacity to make investments and create technological innovations in a sustainable and rational manner, contributing to the digitalization of the country through the construction and expansion of networks in cutting-edge technologies, such as 5G and fiber, which translates into services with better coverage and quality to users. In addition, the transaction has the potential to generate synergies for the Company, through the optimization of operating costs and efficient allocation of investments due to the integration of the incorporated assets.

On the date of approval of these consolidated financial statements, the Company has already concluded the report for the allocation of the purchase price. The following table presents the consideration, the fair value of the identifiable assets and the liabilities assumed at the acquisition date and the goodwill:

Millions of euros	
Consideration	1,093
Intangible assets	539
Licenses	520
Customer relationships	19
Property, plant and equipment	29
Rights of use	105
Deferred tax assets	44
Trade receivables	74
Other assets	30
Cash and cash equivalents	13
Lease liabilities	(117)
Trade payables	(24)
Provisions	(221)
Other liabilities	(55)
Fair value of net assets	417
Goodwill (Note 7)	676

The fair value of the licenses has been determined using the discounted cash flow method of the Income Approach, which considers the earning capacity of the asset. The amortization period of the licenses ranges from 5 to 15 years (average period of 10.08 years).

The fair value of trade receivables amounts to 74 million euros, which does not differ from the book value consisting of a gross amount of 81 million euros, net of estimated impairment losses of 7 million euros.

At the acquisition date, contingent liabilities have been recognized at fair value in the amount of 90 million euros.

The contribution of Garliava since its inclusion in the scope of consolidation and until December 31, 2022 was 206 million euros in revenues and 1 million euros in profit for the period. The information is only available since the mobile assets of Oi assigned to Telefónica Brasil were contributed to Garliava. Consequently, it is not practicable to calculate these impacts as if the transaction had taken place on January 1, 2022.

On September 17, 2022, Telefónica Brasil, together with Claro S.A. and TIM S.A. ("Buyers"), notified Oi, pursuant to the Agreement, about (i) the determination of the post-closing price adjustment in benefit of the Buyers; and (ii) the losses known to date (as defined in the Agreement) in relation to which the Buyers have indemnification rights against the Seller in the total amount of 353 million Brazilian reais, of which 64 million Brazilian reais (approximately 12 million euros) are attributable to Telefónica Brasil. The post-closing adjustment notice presents values and calculations determined with the support of a specialized company, based on the best analysis of the information received and understanding of the Agreement, totaling the maximum amount of 3,187 million Brazilian reais for the price adjustment on behalf of the Buyers. From the price adjustment amount calculated, the amount attributable to Telefónica Brasil is equivalent to up to 1,075 million Brazilian reais (approximately 204 million euros), part of which (488 million Brazilian reais, approximately 93 million euros) is guaranteed by the retention of 10% on the amount paid for the acquisition (see Note 2). On October 3, 2022, Telefónica Brasil, together with Claro S.A. and TIM S.A., started the arbitration procedure against the Seller (see Note 29.c).

The Buyers made a judicial deposit of the amount withheld from the updated purchase price (see Note 15), until the dispute arising from the price adjustment is resolved by arbitration, corresponding to Telefónica Brazil an amount of 522 million reais at December 31, 2022 (approximately 94 million euros).

Acquisition of Incremental

On March 21, 2022, Telefónica Telefónica Tech UK & Ireland, Ltd completed the acquisition of 100% of the shares of the British group Perpetual TopCo, Limited and affiliates (Incremental), one of Microsoft's fastest-growing business partners in the UK, for a 104 million euros consideration (including potential contingent payments linked to its future performance). In addition, at the closing of the transaction a payment was made in the amount of 91 million euros to cancel payment obligations of the acquired companies.

With this acquisition, the Group significantly increased its scale and competencies in Microsoft technologies.

At the date of preparation of these consolidated financial statements, the purchase price allocation is provisional. The following table presents the consideration, the fair value of assets and liabilities identified at the acquisition date and the preliminary goodwill:

Millions of euros	
Share purchase price	104
Payment obligations cancelled	91
Total	195
Intangible assets	24
Customer relationships	23
Other intangible assets	1
Property, plant and equipment	1
Rights of use	1
Accounts receivable	11
Other assets	1
Cash and cash equivalents	9
Lease liabilities	(2)
Accounts payable	(3)
Deferred tax liabilities	(6)
Other liabilities	(11)
Fair value of net assets	25
Preliminary goodwill (Note 7)	170

The contribution of Incremental to the profit for the year, after the impact of the amortization of the assets identified in the purchase price allocation, has been a 1 million euro profit.

Acquisition of BE-terna

On June 9, 2022, Telefónica Cybersecurity & Cloud Tech, S.L.U. completed the acquisition of 100% of the shares of the German group BE-terna Acceleration Holding GmbH and affiliates ("BE-terna Group"), for a 191 million euros consideration (including potential contingent payments linked to its future performance). In addition, at the closing of the transaction a payment was made in the amount of 162 million euros to cancel payment obligations of the acquired companies.

BE-terna Group has a highly qualified team of more than 1,000 employees in 28 locations in Germany, Austria, Switzerland, the Adriatic region and the Nordic countries, among other markets. With this acquisition, the Group significantly enriches its geographic scale and its professional and managed services capabilities across Europe.

At the date of preparation of these consolidated financial statements, the purchase price allocation is provisional. The following table presents the consideration, the fair value of assets and liabilities identified at the acquisition date and the preliminary goodwill:

Millions of euros	
Share purchase price	191
Payment obligations cancelled	162
Total	353
Intangible assets	77
Customer relationships	57
Other intangible assets	20
Property, plant and equipment	6
Right of use	5
Accounts receivable	19
Other assets	12
Cash and cash equivalents	17
Lease liabilities	(5)
Trade payables	(9)
Deferred tax liabilities	(21)
Current tax payables	(6)
Other liabilities	(21)
Fair value of net assets	74
Preliminary goodwill (Note 7)	279

The contribution of BE-terna Group to the profit for the year, after the impact of the amortization of the assets identified in the purchase price allocation, has been a 3 million euros loss.

2021

Acquisition of Cancom

On July 29, 2021, Telefónica Cybersecurity & Cloud Tech, S.L.U. reached an agreement with Cancom Group for the acquisition of 100% of the shares of the British company Cancom Ltd.

Cancom Ltd (currently called Telefónica Tech UK & Ireland Ltd.) is a company that provides end-to-end advanced cloud and cybersecurity services in the United Kingdom and Ireland.

The following table presents the transaction, fair value of assets and liabilities identified at the acquisition moment, and the goodwill generated:

Millions of euros	
Enterprise value	398
Adjustments of debt and cash	(127)
Consideration (share purchase price)	271
Intangible assets	108
Customer relationships	107
Other intangible assets	1
Property, plant and equipment	15
Rights of use	8
Other non-current assets	6
Other current assets	45
Deferred tax assets	2
Cash and cash equivalents	19
Deferred tax liabilities	(27)
Other non-current liabilities	(140)
Other current liabilities	(49)
Fair value of net assets	(13)
Goodwill (Note 7)	284

In addition, at the closing of the transaction a payment was made in the amount of 122 million euros to cancel accounts payable of the acquired companies to Cancom Group.

Customer relationships were valued using the MEEM ("Multiple Excess Earnings Method"), which is based on calculating the discounted cash flows reflecting the economic benefits attributable to the customer base after consideration of all value contributions of other assets.

The contribution of Cancom Ltd to the profit for the year 2021, after the impact of the amortization of the assets identified in the purchase price allocation, was a 4 million euros loss.

Note 6. Intangible assets

The composition of and movements in net intangible assets in 2022 and 2021 are as follows:

2022

Millions of euros	Balance at 12/31/2021	Additions	Amortization	Disposals	Impairments	Transfers and others	Translation differences and hyperinflation adjustments	Business combinations	Balance at 12/31/2022
Service concession arrangements and licenses	7,328	173	(844)	—	(19)	—	392	520	7,550
Software	2,494	495	(1,337)	—	(2)	1,011	119	20	2,800
Customer base	971	—	(356)	—	—	1	—	105	721
Trademarks	276	—	(34)	—	—	1	18	2	263
Other intangible assets	42	22	(28)	(4)	(2)	9	—	—	39
Intangible assets in process	614	840	—	—	(8)	(818)	16	—	644
Total intangible assets	11,725	1,530	(2,599)	(4)	(31)	204	545	647	12,017

2021

Millions of euros	Balance at 12/31/2020	Additions ⁽¹⁾	Amortization	Disposals	Transfers and others	Translation differences and hyperinflation adjustments	Business combinations	Balance at 12/31/2021
Service concession arrangements and licenses	6,573	1,188	(725)	(3)	197	98	—	7,328
Software	2,380	513	(1,226)	(8)	828	6	1	2,494
Customer base	1,238	—	(376)	—	—	2	107	971
Trademarks	512	2	(39)	(210)	—	11	—	276
Other intangible assets	51	17	(22)	—	(3)	(1)	—	42
Intangible assets in process	734	690	—	(8)	(807)	5	—	614
Total intangible assets	11,488	2,410	(2,388)	(229)	215	121	108	11,725

⁽¹⁾ Total additions of intangible assets in 2021 amounted to 2,981 million euros, including the additions corresponding to companies held for sale and sold companies during the annual reporting period (see Note 2).

Additions of spectrum in 2022 amounted to 173 million euros (1,704 million euros in 2021, including the additions corresponding to "Non-current assets and disposal groups held for sale").

In 2022 15 MHz of spectrum in the 1900 MHz band was renewed in Colombia for an amount of 125 million euros. The amount pending payment is detailed in Notes 21 and 22. In 2021, the acquisition of spectrum for 5G in Chile for 131 million euros was recorded.

In 2022 Telefónica Brazil renewed spectrum in the 850 MHz band for an amount of 35 million euros. The amount pending payment is detailed in Notes 21 and 22.

In 2021 Telefónica Spain acquired one block of 10 MHz in the 3.4 GHz band and 20 MHz of spectrum in the 700MHz band for an amount of 352 million euros.

On December 3, 2021, ANATEL signed the terms of authorization for the use of the blocks of radio frequencies assigned to Telefónica Brazil. Pursuant to the terms, in addition to the amounts related to radio frequencies to be paid to ANATEL, the Company is making contributions to the Entidade Administradora de Faixa ("EAF" / Band Management Entity) and to the Entidade Administradora da Conectividade de Escolas ("EACE" / School Connectivity Management Entity). The estimated total cost, registered as addition in "service concession arrangements and licenses" in 2021, amounted to 4,459 million Brazilian real (700 million euros at the 2021 average exchange rate), of which 929 million Brazilian real from radio frequency licenses correspond to ANATEL (146 million

euros at the 2021 average exchange rate), 2,104 million Brazilian real to "EAF" (330 million euros at the 2021 average exchange rate) and 1,426 million Brazilian real to "EACE" (224 million euros at the 2021 average exchange rate).

As a requirement for obtaining these authorizations, the Company, as well as the other successful telecommunication service bidder providers, assumed a series of commitments. For the 2.3 GHz and 3.5 GHz spectrum band obligations for coverage commitments and fiber optic backbone network deployment in locations with little or no connectivity infrastructure. In addition, the successful bidders for the 3.5 GHz band must fund all activities related to the migration of satellite TV services from the C band to the Ku band, for the construction of six high-capacity info-ways by laying sub fluvial cables for the Integrated and Sustainable Amazon Program ("PAIS") and the implementation of private (fixed and mobile) communication networks reserved for the Federal Public Administration. "EAF" will be responsible for the execution of these activities. The successful bidders for the 26 GHz spectrum bands will be required to fund "EACE's" activities for broadband connectivity projects for public schools to be selected across the country.

In March 2021 Telefónica United Kingdom acquired 40 MHz of spectrum in the 3.6 GHz band and 20 MHz in the 700 MHz FDD band, amounting to 515 million euros. The acquisition was accounted under "Non-current assets and disposal groups held for sale" in the statement of financial position (see Note 2).

"Impairments" in 2022 includes an impairment loss related to licenses and software of Telefónica Argentina, amounting to 21 million euros.

"Business combinations" in 2022 corresponds mainly to the acquisition of the intangible assets of Oi, the Incremental Group and the BE-terna Group amounting to 539, 24 and 77 million euros (see Note 5), respectively.

"Business combinations" in 2021 corresponded to the inclusion of Cancom Ltd in the consolidation perimeter (see Note 5).

"Transfers and others" in 2021 included the reclassification of the intangible assets of Telefónica de El Salvador amounting to 38 million euros to "Non-current assets and disposal groups held for sale" of the statement of financial position (see Note 30).

Appendix VI contains the details of the main concessions and licenses which the Group operates.

The effect of the translation into euros of the intangible assets of the Group's companies in Argentina and Venezuela, together with the effect of the hyperinflation adjustments (see Note 3.a), is shown in the column "Translation differences and hyperinflation adjustments".

The gross cost, accumulated amortization and impairment losses of intangible assets at December 31, 2022 and 2021 are as follows:

Balance at December 31, 2022

Millions of euros	Gross cost	Accumulated amortization	Impairment losses	Intangible assets
Service concession arrangements and licenses	15,837	(8,123)	(164)	7,550
Software	17,158	(14,344)	(14)	2,800
Customer base	5,089	(4,368)	—	721
Trademarks	944	(681)	—	263
Other intangible assets	870	(829)	(2)	39
Intangible assets in process	652	—	(8)	644
Total intangible assets	40,550	(28,345)	(188)	12,017

Balance at December 31, 2021

Millions of euros	Gross cost	Accumulated amortization	Impairment losses	Intangible assets
Service concession arrangements and licenses	14,456	(7,007)	(121)	7,328
Software	15,442	(12,938)	(10)	2,494
Customer base	4,888	(3,917)	—	971
Trademarks	901	(625)	—	276
Other intangible assets	910	(868)	—	42
Intangible assets in process	614	—	—	614
Total intangible assets	37,211	(25,355)	(131)	11,725

Note 7. Goodwill

Movement in goodwill

The movement in goodwill assigned to each Group segment was as follows:

2022

Millions of euros	Balance at 12/31/2021	Additions	Disposals	Write-offs	Transfers	Exchange rate impact	Balance at 12/31/2022
Telefónica Spain	4,291	—	—	—	—	—	4,291
Telefónica Brazil	6,278	695	—	—	—	779	7,752
Telefónica Germany	4,386	—	—	—	—	—	4,386
Telefónica Hispam	1,166	—	—	—	—	49	1,215
Others	398	457	—	—	(5)	(23)	827
Total	16,519	1,152	—	—	(5)	805	18,471

2021

Millions of euros	Balance at 12/31/2020	Additions	Disposals	Write-offs	Transfers	Exchange rate impact	Balance at 12/31/2021
Telefónica Spain	4,299	—	(8)	—	—	—	4,291
Telefónica Brazil	6,258	—	(36)	—	—	56	6,278
Telefónica Germany	4,558	—	(172)	—	—	—	4,386
Telefónica Hispam	1,778	—	(137)	(393)	(13)	(69)	1,166
Others	151	297	—	(23)	(37)	10	398
Total	17,044	297	(353)	(416)	(50)	(3)	16,519

Additions of Telefónica Brazil in 2022 mainly correspond to the goodwill from the acquisition of the assets of the mobile business of Oi Group (see notes 2 and 5).

Additions in 2022 also include the preliminary goodwill from the acquisitions of Incremental and BE-terna, amounting to 170 million euros and 279 million euros, respectively (see Note 5).

Additions in 2021 included the goodwill related to the acquisition of Cancom amounting to 284 million euros (see Note 5).

In 2021 an impairment loss was recognized on the goodwill allocated to Telefónica del Perú, amounting to 393 million euros, with a balancing entry in “Other expenses” (see Note 26).

In August 2021 the closing of the second phase of the agreement of the contract dated June 8, 2020 between Telefónica Germany and Telxius was carried out and the sites corresponding to this phase were sold to ATC (see Note 2). The goodwill assigned amounting to 172 million euros was derecognized.

Disposals of Telefónica Hispam in 2021 included 137 million euros following the agreement for the sale of 60% of the shares of InfraCo, SpA by Telefónica Chile (see Note 2).

The amount of Disposals of Telefónica Brazil in 2021 corresponded to the goodwill derecognized following the agreement with Caisse de dépôt et placement du Québec or the construction, deployment and commercialization of a fiber-to-the-home (FTTH) network in Brazil, that was closed in July 2021 (see Note 10).

Cash-generating units

In order to test for impairment, goodwill was allocated to the different cash-generating units (CGUs), which are grouped into the following reportable operating segments:

Millions of euros	12/31/2022	12/31/2021
Telefónica Spain	4,291	4,291
Telefónica Brazil	7,752	6,278
Telefónica Germany	4,386	4,386
Telefónica Hispam	1,215	1,166
Colombia	135	154
Ecuador	137	129
Chile	652	622
Peru	265	239
Uruguay	23	20
Others T. Hispam	3	2
Other companies	827	398
Telefónica Tech UK & Ireland	429	288
BE-terna	279	—
Others	119	110
TOTAL	18,471	16,519

Goodwill is tested for impairment at the end of the year using the business plans of the cash-generating units to which the goodwill is assigned, approved by the Board of Directors of Telefónica.

The business plan covers a three-year period, including the closing year. In order to complete the five years of cash flows after the closing year, an additional normalization period is added to the business plans on the operating ratios until the terminal parameters are reached. The consensus' forecasts are used as a reference. For specific cases, extended business plans are used to cover the five-year period of cash flows, when the normalization period does not properly reflect the expected evolution of the business.

Finally, to determine the terminal value of each CGU, a constant free cash flows growth over time is assumed, applying a terminal growth rate. The model used is similar to the dividend discount model developed by Gordon-Shapiro, internationally recognized for business valuations.

The process of preparing the CGUs' business plans considers the current market condition of each CGU, analyzing the macroeconomic, competitive, regulatory and technological environments, as well as the growth opportunities of the CGUs, and the differentiation capabilities compared to the competition based on market projections. A growth target is therefore defined for each CGU, based on the appropriate allocation of operating resources and the capital investments required to achieve the target. In addition, operating efficiency improvements are defined, in line with the strategic transformation initiatives, in order to increase the forecasted operating cash flow. In this process, the Group considers the compliance with business plans in the past.

Main assumptions used in calculating value in use

CGUs' value in use are calculated based on the approved business plans. Certain variables are then considered, including the long-term OIBDA margin and the long-term Capital Expenditure ratio (expressed as a percentage of revenue), which are considered the key operating variables to measure business performance and to set financial targets. Finally, the discount rates and the perpetuity growth rates are considered.

The main variables considered for the most significant CGUs (T. Brazil, T. Spain, and T. Germany), are described below.

Revenues

In terms of revenues, the plan is in line with the average three-year estimates made by analysts, which include a trend towards stability or improvement.

OIBDA margin and long-term Capital Expenditure (CapEx) ratio

The values obtained, as described in the previous paragraphs, are compared with the available data of analysts and competitors in the geographic markets where Telefónica Group operates.

In Europe, the long-term OIBDA margins two-years estimates of Telefónica Group's analysts are within a range of 34% to 39% for Spain and 30% to 33% for Germany.

Regarding the long-term ratio of CapEx over revenues, the valuations performed for the impairment tests for Spain and Germany consider the opinions of Telefónica Group's analysts with regard to investment needs (around 12% for Spain and around 14% for Germany).

As for the long-term OIBDA margin two-years estimates of Telefónica Group's analysts for the operator in Brazil, it is in a range within 41% to 46%. Regarding investments, the operator will invest a percentage over the horizon of the projected plan that is in line with the investment needs foreseen for the development of its business, which on average is around 16%.

Discount rate

The discount rate, applied to discount cash flows, is the weighted average cost of capital (WACC), determined by the weighted average cost of equity and cost of debt according to the finance structure determined for each CGU.

This rate is calculated using the capital asset pricing model (CAPM), which considers the asset's systemic risk, and the impact of those risks not already considered on cash flows, such as country risk, business-specific credit risk, currency risk and price risk specific to the financial asset, constantly monitoring the fluctuations of the financial markets.

The most significant components of WACC are summarized as follows:

- Risk-Free Rate: defined as the interest rate offered by long-term sovereign bonds. The rate is determined using current market data and equilibrium level estimates (according to standard econometric models, supported by modeling of neutral rates prepared by the central banks themselves) in which the interest rates should be located, thus adjusting the yields, influenced by central banks interventions.
- Political Risk Premium: adds the country's insolvency risk due to political and/or financial events; calculation is based on the quoted prices of credit default swaps for each country or, the EMBI+ index published by JP Morgan based on the information available and the liquidity conditions of these swaps.
- Equity Risk Premium: the return in excess that equity assets are expected to yield over the risk-free rate. This is determined using a combination of historical approaches (ex post) backed by external publications and studies based on historical market returns series, and prospective approaches (ex-ante), based on market publications, considering the medium- and long-term profit expectations based on the degree of maturity and development of each country.
- Beta Coefficient: a measure of the volatility, or systematic risk, of an equity asset in comparison to the entire market. It is estimated based on a series of historical share prices of comparable companies listed on the stock exchange, to estimate the correlation between the company shares' returns and the stock market returns, of the country where the company is listed.

The main underlying data used in these calculations are obtained from independent and renowned external information sources.

The discount rates applied to the cash flow projections in 2022 and 2021 for the main CGUs are as follows:

Discount rate in local currency	2022		2021	
	Before tax	After-tax	Before tax	After-tax
Spain	9.0%	6.9%	8.5%	6.5%
Brazil	16.4%	12.6%	15.2%	12.0%
Germany	8.0%	5.7%	7.2%	5.2%

Perpetuity growth rate

Cash flow projections from the sixth year are calculated using an expected constant growth rate (g), considering the analyst consensus estimates for each business, based on the maturity of the industry and technology, and the degree of development of each country. Each indicator is compared to the forecasted long-term real and nominal

GDP growth of each country and growth data from external sources, adjusting any particular case with specific characteristics related to the business evolution.

The perpetuity growth rates applied to the cash flow projections in 2022 and 2021 for the main CGUs are as follows:

Perpetuity growth rate in local currency	2022	2021
Spain	0.8%	0.8%
Brazil	4.5%	4.5%
Germany	1.0%	1.1%

The perpetuity growth rates for 2022 remained stable comparing to 2021. In Brazil, the perpetuity growth rate is within the range of the estimations of the analysts, it is consistent with the Brazilian Central Bank's medium-term inflation target (in a range between 1.5% and 4.5%) and it is below the nominal GDP growth rate of around 5.5%, according to market expectations.

Sensitivity to changes in assumptions

The Group performs a sensitivity analysis of the impairment test by considering reasonable changes in the main assumptions used in the test. For the main CGU, the following maximum increases or decreases were assumed, expressed in percentage points:

Changes in key assumptions, In percentage points	Spain	Germany	Brazil
Financial variables			
Discount rate	+/-0.5	+/-0.5	+/-1
Perpetuity growth rates	+/-0.25	+/-0.25	+/-0.5
Long-term operating variables			
OIBDA Margin	+/-1.5	+/-1.5	+/-2
Ratio of CapEx/Revenues	+/-0.75	+/-0.75	+/-1

The sensitivity analysis revealed a gap between the recoverable value and carrying amount for the main CGUs at December 31, 2022.

As indicated above, in 2021 an impairment loss of 393 million euros was recognized on the goodwill allocated to Telefónica del Perú. The Group has performed the annual impairment test at the end of 2022. As a result of the analysis performed, no additional impairment has been recognized. Regarding the sensitivity of the calculation of the value in use of Telefónica del Perú to reasonable variations in the key assumptions used, an increase of 100 basis points, in the WACC of 10.4%, would result in an impairment of goodwill in the amount of 160 million euros, while a decrease of 25 basis points in the perpetuity growth rate of 2.4% would have a negative impact of 11 million euros. In turn, a decrease in the OIBDA margin by approximately 1 percentage point would result in an impairment of goodwill of 95 million euros, and an increase in the investment ratio by 0.5 percentage points would have a negative impact on the carrying amount of goodwill of approximately 60 million euros.

In Ecuador, the uncertainty of the political situation has raised the country risk indicator, with its consequent impact on financial costs and the discount rate used to estimate the recoverable value of the investment. Therefore, in the sensitivity of the calculation of the value in use of Telefónica Ecuador to reasonable variations in the key assumptions, an increase of around 150 basis points in the WACC, which is around 16%, would result in an impairment of goodwill of approximately 30 million euros, while a decrease of around 25 basis points in the perpetual growth rate of 2% would have no negative impact on the carrying value of goodwill. On the operating assumptions side, a 1.75 percentage point decrease in the OIBDA margin would result in an impairment of goodwill of approximately 12 million euros, and a 0.9 percentage points increase in the investment ratio would result in a negative impact on the carrying amount of goodwill of approximately 3 million euros.

In Chile, the economy growth slowed down in 2022 due to various factors that had a negative impact on family income. These include the withdrawal of fiscal measures, a slowing labor market and high inflation that was above 10% throughout the year, and which forced the Central Bank of Chile to raise interest rates. On the other hand, the constitutional reform process, later revoked and reactivated, has added uncertainty, harming the country's short-

and medium-term growth expectations. In this context, the sharp rise in interest rates has increased the discount rate to 9.4%. Therefore, in the sensitivity of the calculation of the value in use of Telefónica de Chile to reasonable variations in the key assumptions, an increase of around 50 points basis points in the WACC would result in an impairment of goodwill of 60 million euros, while a decrease of around 25 basis points in the perpetuity growth rate (2.8%) would not have a negative impact on the carrying amount. On the business side, a 1.25 percentage point decrease in the OIBDA margin would result in an impairment of goodwill of 116 million euros and an increase of 0.63 percentage points in the investment ratio would have a negative impact of approximately 60 million euros on the carrying amount of goodwill.

Note 8. Property, plant and equipment

The composition and movements in 2022 and 2021 of the items comprising net "Property, plant and equipment" were as follows:

2022

Millions of euros	Balance at 12/31/2021	Additions	Depreciation	Disposals	Impairments	Transfers and others	Translation differences and hyperinflation adjustments	Business combinations	Balance at 12/31/2022
Land and buildings	2,660	25	(216)	(22)	(12)	104	97	5	2,641
Plant and machinery	17,752	1,323	(3,707)	(28)	(43)	1,908	933	27	18,165
Furniture, tools and other items	552	74	(210)	(1)	(1)	132	26	4	576
PP&E in progress	1,761	2,867	—	(12)	(3)	(2,353)	71	1	2,332
Total PP&E	22,725	4,289	(4,133)	(63)	(59)	(209)	1,127	37	23,714

2021

Millions of euros	Balance at 12/31/2020	Additions ⁽¹⁾	Depreciation	Disposals	Impairments	Transfers and others	Translation differences and hyperinflation adjustments	Business combinations	Business sale	Balance at 12/31/2021
Land and buildings	2,829	22	(241)	(37)	(2)	141	31	2	(85)	2,660
Plant and machinery	18,676	1,249	(3,893)	(11)	—	1,780	236	12	(297)	17,752
Furniture, tools and other items	623	90	(226)	—	—	56	8	1	—	552
PP&E in progress	1,641	2,519	—	(18)	(3)	(2,393)	16	—	(1)	1,761
Total PP&E	23,769	3,880	(4,360)	(66)	(5)	(416)	291	15	(383)	22,725

⁽¹⁾ Total additions of property, plant and equipment in 2021 amounted to 4,286 million euros, including the additions corresponding to companies held for sale and sold companies during the annual reporting period (see Note 2).

Telefónica Spain's investments in property plant and equipment in 2022 and 2021 amounted to 1,288 and 1,155 million euros, respectively. The rapid rollout of fiber continues, with more than 28 million premises passed in Telefónica Spain by the end of 2022, as well as the development of the 5G network reaching, 85% population coverage by the end of the year.

Telefónica Germany's investments in property, plant and equipment in 2022 and 2021 amounted to 854 and 913 million euros, respectively. The strong progress in 5G rollout and network modernization continues. 5G population coverage stood at approximately 80% at the end of 2022.

Telefónica Brazil's investments in property, plant and equipment in 2022 and 2021 amounted to 1,277 and 1,049 million euros, respectively. The investments were mainly dedicated to the expansion of the coverage and capacity of the 4G mobile networks, with a coverage of 96% of the population, and to the improvement of the quality of the network and the expansion of the FTTH network in the fixed business, with more than 23.3 million premises passed.

Telefónica Hispam's investments in property, plant and equipment in 2022 and 2021 amounted to 732 and 680 million euros, respectively. Investments continued to focus on the improvement of the mobile networks (with the expansion of the coverage and capacity reinforcement), as well as on the deployment of its own fixed network. Efficient management of available resources and optimization of CapEx are the main management levers in the region, with a focus on simplification, digitalization of processes and the search for synergies through the promotion of regional initiatives.

Telefónica United Kingdom's investments in property, plant and equipment in 2021, up to the completion of the transaction (see Note 2), amounted to 366 million euros.

"Impairments" in 2022 includes an impairment loss related to assets of Telefónica Argentina, amounting to 56 million euros.

"Business combinations" in 2022 mainly correspond to the acquisition of property, plant and equipment of Oi, the Incremental Group and the BE-terna Group amounting to 29, 1 and 6 million euros (see Note 5), respectively.

"Business combinations" in 2021 mainly corresponded to the inclusion of Cancom Ltd in the consolidation perimeter (see Note 5) amounted to 15 million euros.

In 2022, there was an increase in the depreciation of property, plant and equipment amounting to 8 million euros (47 million euros in 2021) due to the reduction in the useful lives of certain assets of Telefónica México as a result of the transformation of the operating model announced in November 2019.

"Transfers and others" in 2021 included the reclassifications of property, plant and equipment of Telefónica El Salvador and fiber optic assets of Telefónica Colombia amounted to 70 and 53 million euros respectively, to "Non-current assets and disposal groups held for sale" of the statement of financial position (see Note 30).

"Business sale" in 2021 mainly corresponded to the sales of InfraCo, SpA and the second phase of the sale of towers by Telefonica Germany (see Note 2) amounted to 158 and 126 million euros, respectively, and the assets associated to Fibrasil following the Caisse de dépôt et placement du Québec (CDPQ) agreement and the sale of two data centers in Spain after the agreement with Nabiax (see Note 10) for a total amount of 36 and 63 million euros, respectively.

The effect of translating into euros of property, plant and equipment of the Group's companies in Argentina and Venezuela, together with the effect of the hyperinflation adjustments (see Note 3.a), is shown in the column "Translation differences and hyperinflation adjustments".

Telefónica Group companies purchased insurance policies to reasonably cover the possible risks to which their property, plant and equipment used in operations are subject, with suitable limits and coverage. Additionally, as part of its commercial activities and network deployment, the Group maintains several property acquisition commitments. The timing of scheduled payments in this regard is disclosed in Note 26.

The gross cost, accumulated depreciation and impairment losses of property, plant and equipment at December 31, 2022 and 2021 were as follows:

Balance at December 31, 2022

Millions of euros	Gross cost	Accumulated depreciation	Impairment losses	PP&E
Land and buildings	9,097	(6,375)	(81)	2,641
Plant and machinery	91,319	(72,742)	(412)	18,165
Furniture, tools and other items	5,157	(4,566)	(15)	576
PP&E in progress	2,343	—	(11)	2,332
Total PP&E	107,916	(83,683)	(519)	23,714

Balance at December 31, 2021

Millions of euros	Gross cost	Accumulated depreciation	Impairment losses	PP&E
Land and buildings	8,624	(5,905)	(59)	2,660
Plant and machinery	86,779	(68,713)	(314)	17,752
Furniture, tools and other items	4,697	(4,133)	(12)	552
PP&E in progress	1,774	—	(13)	1,761
Total PP&E	101,874	(78,751)	(398)	22,725

Note 9. Rights of use

The movement of rights of use in 2022 and 2021 is as follows:

2022

Millions of euros	Balance at 12/31/2021	Additions	Amortization	Disposals	Business combinations	Transfers and others	Translation differences and hyperinflation	Balance at 12/31/2022
Rights of use on land and natural properties	793	367	(279)	(7)	—	(15)	26	885
Rights of use on buildings	3,561	1,402	(1,139)	(29)	110	(11)	236	4,130
Rights of use on plant and machinery	3,024	596	(574)	(19)	—	(5)	15	3,037
Other rights of use	201	83	(72)	(2)	1	11	5	227
Total of rights of use	7,579	2,448	(2,064)	(57)	111	(20)	282	8,279

2021

Millions of euros	Balance at 12/31/2020	Additions ⁽¹⁾	Sale of the towers division of Telxius	Amortization	Disposals	Business combinations	Transfers and others	Translation differences and hyperinflation	Balance at 12/31/2021
Rights of use on land and natural properties	762	316	(85)	(191)	(15)	—	(11)	17	793
Rights of use on buildings	2,819	776	1,096	(1,012)	(94)	4	(40)	12	3,561
Rights of use on plant and machinery	1,238	796	1,478	(382)	(109)	—	1	2	3,024
Other rights of use	163	91	11	(64)	(3)	4	2	(3)	201
Total of rights of use	4,982	1,979	2,500	(1,649)	(221)	8	(48)	28	7,579

⁽¹⁾ Total additions of rights of use in 2021 amounted to 2,439 million euros, including the additions corresponding to companies held for sale and sold companies during the annual reporting period. Additions of rights of use are detailed in Note 4.

"Business combinations" in 2022 corresponds to the acquisition of rights of use of Oi, the Incremental Group and the BE-terna Group (see Note 5) amounting to 105, 1 and 5 million euros, respectively.

"Business combinations" in 2021 corresponded to the inclusion of Cancom Ltd in the consolidation perimeter (see Note 5) amounted to 8 million euros.

The effect of the translation into euros of rights of use of the Group's companies in Argentina and Venezuela, together with the effect of the hyperinflation adjustments (see Note 3.a) is shown in the column "Translation differences and hyperinflation adjustments".

In 2022, there was an increase in amortization of rights of use amounting to 17 million euros (40 million euros in 2021) due to the reduction in the useful lives of certain rights of use of Telefónica México as a result of the transformation of the operating model announced in November 2019.

In 2021 Telxius sold its telecommunications towers division to American Tower Corporation (see Note 2). The Telefónica Group operators maintained the leases agreements of the towers signed with the companies sold, subsidiaries of Telxius. Consequently, as of the closing date of the transactions, rights of use were recorded in the consolidated statement of financial position in the amount of 2,633 million euros. "Sale of the towers division of Telxius" column also includes the derecognition of rights of use with third parties corresponding to the second phase of the sale agreement between Telefonica Germany and Telxius in the amount of 133 million euros.

"Transfers and others" in 2021 included the transfer to "Non-current assets and disposal groups held for sale" of the rights of use of Telefónica El Salvador amounted to 36 million euros (see Note 30).

The gross cost and accumulated depreciation of the rights of use at December 31, 2022 and 2021 are as follows:

Balance at December 31, 2022

Millions of euros	Gross cost	Accumulated depreciation	Rights of use
Rights of use on land and natural properties	1,923	(1,038)	885
Rights of use on buildings	8,053	(3,923)	4,130
Rights of use on plant and machinery	4,560	(1,523)	3,037
Other rights of use	469	(242)	227
Total of rights of use	15,005	(6,726)	8,279

Balance at December 31, 2021

Millions of euros	Gross cost	Accumulated depreciation	Rights of use
Rights of use on land and natural properties	1,491	(698)	793
Rights of use on buildings	6,214	(2,653)	3,561
Rights of use on plant and machinery	4,003	(979)	3,024
Other rights of use	404	(203)	201
Total of rights of use	12,112	(4,533)	7,579

The detail of expenses related to leases included in Supplies and Other expenses (see Note 3.g) of the consolidated income statement for 2022 and 2021 are as follows:

Millions of euros	2022	2021
Short-term leases included in operating results as supplies	22	23
Variable lease payments not included in the measurement of lease liabilities	17	18
Total expenses as supplies	39	41
Short-term leases included in external services	52	39
Leases of low-value assets included in external services	8	9
Variable lease payments not included in the measurement of lease liabilities	26	32
Total expenses as external services (Note 26)	86	80
Total lease expenses	125	121

Note 10. Associates and joint ventures

The detail of investments accounted for by the equity method and the share of income/(loss) of these investments is the following:

Millions of euros	% Holding	Investments accounted for by the equity method		Share of income (loss) of investments accounted for by the equity method		
		31/12/2022	31/12/2021	2022	2021	2020
VMED O2 UK Ltd	50 %	10,779	12,129	292	(103)	—
Movistar Prosegur Alarmas	50 %	252	263	(12)	(2)	(4)
FiBrasil Infraestructura e Fibra Ótica, S.A.	50 %	79	68	(8)	(3)	—
Unsere Grüne Glasfaser	50 %	108	53	(64)	(25)	(1)
Opal Jvco Limited (nexfibre)	25 %	55	—	26	—	—
Others		2	9	(4)	1	2
Joint ventures		11,275	12,522	230	(132)	(3)
Daytona Midco, S.L. (NabiAx)	20.00 %	120	81	(1)	—	—
Adquira España, S.A.	44.44 %	4	4	—	—	—
HoldCo Infraco SpA. (Onnet Fibra Chile)	40 %	79	76	—	(1)	—
Alamo HoldCo S.L. (Onnet Fibra Colombia)	40 %	12	—	(15)	—	—
Internet para todos S.A.C	54.67 %	55	52	(3)	(5)	—
Telefónica Factoring España, S.A.	50 %	7	7	4	3	3
Telefónica Factoring do Brasil, Ltda.	50 %	3	3	3	3	2
Telefónica Factoring Peru, S.A.C.	50 %	2	3	1	1	1
Telefónica Factoring Colombia, S.A.	50 %	1	2	1	1	1
Telefónica Factoring México,S.A. de C.V.	50 %	1	1	—	—	—
Telefónica Factoring Chile, SpA.	50 %	1	1	—	—	—
Telefónica Factoring Ecuador, S.A.	50 %	—	—	—	—	—
Telefónica Consumer Finance, Establecimiento Financiero de Crédito, S.A.	50 %	19	19	2	2	(1)
Movistar Consumer Finance Colombia SAS	50 %	2	1	(3)	(1)	—
Others		6	1	(2)	2	(1)
Associates		312	251	(13)	5	5
Total		11,587	12,773	217	(127)	2

The detail of the movement in investments accounted for by the equity method in 2022 and 2021 is as follows:

Investments accounted for by the equity method	Millions of euros
Balance at 12/31/2020	427
Additions	12,329
Disposals	(5)
Translation differences and other comprehensive income (loss)	350
(Loss) income	(127)
Dividends	(198)
Transfers and others	(3)
Balance at 12/31/2021	12,773
Additions	181
Disposals	(12)
Translation differences and other comprehensive income (loss)	(646)
Income (loss)	217
Dividends	(920)
Transfers and others	(6)
Balance at 12/31/2022	11,587

On January 11, 2022, once the corresponding authorizations from the regulatory authorities were obtained and after the fulfilment of certain agreed conditions, the transaction between Colombia Telecomunicaciones S.A. ESP BIC (Telefónica Colombia) and a Colombian company controlled by Kohlberg Kravis Roberts - KKR (Onnet Fibra Colombia S.A.S) for the sale and purchase of certain fiber assets owned by Telefónica Colombia and for the provision of wholesale connectivity services by Onnet Fibra Colombia S.A.S to Telefónica Colombia, the development of activities of deployment of fiber network, and other associated services, was completed. Telefónica Colombia received, as consideration, 187 million U.S. dollars (approximately 165 million euros at the exchange rate at such date) and 40% of the shares of a Spanish company controlled by KKR, Alamo HoldCo S.L., the sole shareholder of Onnet Fibra Colombia S.A.S. (see Note 30). The gain included in "Other income" in the consolidated income statement for the year 2022 amounted to 162 million euros (see Note 26). Additions for the year 2022 include the fair value assigned to the 40% of the investment in Alamo HoldCo, S.L. amounting to 28 million euros.

On May 24, 2022, Telefónica Infra, S.L. achieved a 20% stake in Daytona Midco S.L. as a result of the agreement reached on May 7, 2021 with Asterion Industrial Partners ("Asterion") for the contribution to Nabiax (a subsidiary of Asterion) of four data centers owned by the Telefónica Group (see Note 29.c). Additions for the year 2022 regarding this transaction amounted to 41 million euros.

Additions for the year 2022 also includes the capital increase of 50 million euros at Unsere Grüne Glasfaser (27 million euros in 2021, see Note 28).

On July 29, 2022, Telefónica, Liberty Global and InfraVia (see Note 29.c.) reached an agreement for the establishment of a joint venture, "nexfibre", for the deployment of fiber-to-the-home (FTTH) in the United Kingdom. Once the relevant regulatory authorizations were obtained and the other conditions were fulfilled, the closing of the transaction took place on December 15, 2022. After closing, Liberty Global and Telefónica participate by halves in a joint vehicle that holds a 50% interest in nexfibre, with InfraVia owning the remaining 50%.

"Translation differences and other comprehensive income (loss)" for the year 2022 mainly includes the impact of the pound sterling depreciation associated with the investment in VMO2, amounting to 627 million euros and the results of the defined benefit pension plan in VMO2 amounting to 106 million euros. This also includes gains imputed to equity on derivatives financial instruments in Unsere Grüne Glasfaser amounting to 69 million euros.

In June, September and December 2022, dividends of 125 million pounds sterling (equivalent to 146 million euros) 290 million pounds sterling (equivalent to 324 million euros) and 385 million pounds sterling (equivalent to 439 million euros), respectively, were received from VMED O2 UK Ltd. In December 2021, a dividend was received from VMED O2 UK Ltd for an amount of 161 million pounds sterling (equivalent to 187 million euros, see Note 28).

Additions for the year 2021 mainly includes the fair value of the 50% stake in VMO2 at the date of incorporation, which amounts to 12,012 million euros (see Note 2).

In July 2021, the sale transaction of 60% of the shares of Infracore, SpA was completed. In 2021 additions, the value of the shareholding after the operation is included, amounting to 75 million euros.

Additionally, the value of the 50% stake in Fibrasil at the date of the transaction amounting to 73 million euros is included in additions for the year 2021.

In July 2021, the partial closing of the transaction with Asterion took place, Telefónica obtained 13.94% of the company Daytona Midco S.L. and its subsidiary Digital Data Center Bidco, S.L.U. (Nabix), registering 81 million euros in additions.

VMED O2 UK

Main assumptions used in the initial fair value calculation

The fair value calculation for VMED O2 UK Ltd at the time of its constitution was based on a discounted cash flows valuation, using the methods of multiples of comparable companies and multiples of transactions as a cross-check.

The valuation emanated from the business plan of the joint venture for the 2021-2023 period that resulted from the aggregation of the individual business plans of O2 and Virgin Media approved by Telefónica and Liberty Global, respectively, extended to 2030, and the synergies plan prepared by the strategy teams of both groups. The following is a description of the main variables considered in the fair value calculation, according to the primary method:

- **Revenues:** the valuation scenario assumed growth rates between 0% and 3% over the period, in line with the estimations of analysts and supported in the revenues synergies expected for the transaction.
- **EBITDA margin:** the forecasted EBITDA (operating income before depreciation and amortization) was based on the stand-alone plans, The normalized margin (post-IFRS 16, i.e., before amortization of rights of use), adjusted to consider the impact of annual payments of spectrum licenses once expired, was in the range of 36% to 40%.
- **Synergies:** were considered taking into account management's analysis performed at the individual workstream level and benchmarked with analyst estimates of probability of achievement.
- **Long-term capital expenditure ratio:** it was expected to be in a range of 16% to 22% (including CapEx and rights of use additions), aligned with the historical level of comparable companies.
- The **discount rate** applied to the cash flow projections was the weighted average cost of capital (WACC), the expected return appropriate for the expected risk level.

A modified version of the Capital Asset Pricing Model ("CAPM") was used to estimate the required return on equity. To relever the beta it was considered the intrinsic leverage of the joint venture. In addition, it was considered a specific premium or alpha, which captures additional risks considered at the time of incorporation in relation to the likelihood of realization of synergies and the execution risk of the combined business plan.

For the cost of debt, in line with the leverage assumption considered, the bonds issued by the joint venture were analysed and their spreads were compared to a comparable risk free rate (with a similar maturity, in the same currency and issued in the same country, so that there was not distortion due to the risk premia by country). A return after taxes was used because the interests on the financial debt are tax deductible.

In conclusion, the discount rate applied for the valuation was 6.9%.

- **Perpetuity growth rate:** revenues from 2028 were normalized to the perpetuity growth rate (g), considering the analysts' consensus for the companies of the sector in the United Kingdom, contrasting with the estimations of long-term inflation rates and with the assumptions made by companies of the sector in their impairment tests. The perpetuity growth rate considered was 1.0%.

Impairment test as at December 31, 2022

The Group has performed an impairment analysis of the investment in VMO2 at the end of the year.

2022 has been a challenging year for the United Kingdom. In addition to higher inflation due to external factors (rising energy prices, supply chain problems and food prices) and domestic factors (very dynamic labour market), interest rates have risen, which has had a negative impact on the disposable income of households and businesses. This was followed after the summer by an episode of high financial volatility as a result of inconsistent fiscal policy decisions.

Despite the difficult macroeconomic context VMO2 has delivered its set guidance and made strong strategic and operational progress throughout the year. The company introduced new products, like TV Stream and Switch up and continues to drive fixed mobile convergence with its VOLT product. VMO2 delivered synergies according to its plan and the fixed footprint reached 16.1 million premises passed, meeting the full year build targets. In mobile, it expanded 5G services to more than 1,600 towns and cities, on-track to deliver 5G services to 50% of the UK population in 2023.

In addition, on December 15, 2022, Telefónica Infra, Liberty Global and InfraVia Capital Partners entered into a joint venture (see Note 29.c) which will deploy fibre to the home (FTTH) to 5 million homes in the UK not currently served by VMO2's network, with the possibility of expansion to an additional 2 million homes. The fibre network will offer wholesale FTTH access to telecommunications service providers, with VMO2 acting as the anchor tenant, as well as providing a range of technical services.

As a result of the analysis performed, the Group has concluded that as at December 31, 2022 the value in use continues to exceed the carrying value of the investment, although the headroom has been reduced.

The discount rate used to calculate the value in use at December 31, 2022 has increased from 6.9% to 7.3% due to the macroeconomic tensions in the UK and despite the downward revision, more than 20 months after the establishment of the joint venture, of the specific premium (alpha) considered in the calculation of the initial fair value. The perpetuity growth rate has been maintained at the 1% used in the initial valuation, which is below the real terminal growth forecast for the UK economy and despite higher inflation in the medium-term than assumed in the initial scenario.

Regarding the sensitivity of the calculation to reasonably possible variations in key assumptions:

- An increase of about 18 basis points over the WACC rate used of 7.3%, or a decrease of around 22 basis points in the perpetuity growth rate (1%), would result in the value in use being equal to the carrying value.
- Regarding the operating variables used, which are within the ranges considered in the calculation of the initial fair value, a decrease of around 1 percentage point in the EBITDA margin, or an increase of around 1.1 percentage points in the long-term investment ratio would also equalize the value in use with the carrying value.

The values of operating variables included in the valuation are within the ranges expected by analysts for comparable companies in the region.

Detail of the main items on the statements of financial position and income statements of VMED O2 UK Ltd

Millions of euros	12/31/2022	12/31/2021
Non current assets	46,280	48,779
Current assets	3,782	3,554
Cash and cash equivalents	555	415
Total Assets	50,062	52,333
Non current liabilities	20,840	20,593
Non current financial liabilities	19,668	19,185
Non-current lease liabilities	725	885
Other non current liabilities	447	523
Current liabilities	7,786	7,605
Current financial liabilities	3,248	2,841
Current lease liabilities	221	219
Other current liabilities	4,317	4,545
Total Liabilities	28,626	28,198
Equity (100% VMO2)	21,436	24,135
50% Telefónica Group	10,718	12,068
Acquisition costs	61	61
Investments accounted for by the equity method	10,779	12,129

Millions of euros	January - December 31 2022	June 1 - December 31 2021
Revenues	12,155	7,223
Other operating income	551	290
Operating expenses	(8,305)	(5,063)
OIBDA	4,401	2,450
Depreciation and amortization	(4,170)	(2,395)
Operating income	231	55
Share of income (loss) of investments accounted for by the equity method	1	—
Financial income	24	27
Financial expenses	(1,020)	(504)
Realised and unrealised gains on derivative instruments, net ⁽¹⁾	2,567	489
Foreign currency transaction losses, net	(1,296)	(367)
Net financial expense	275	(355)
Result before taxation	507	(300)
Income tax	(15)	65
Result for the period (100% VMO2)	492	(235)
50% attributable to Telefónica Group	246	(117)
Share-based compensation ⁽²⁾	14	14
Other adjustments	32	—
Share of income (loss) of investments accounted for by the equity method	292	(103)
Other comprehensive income (100% VMO2)	(113)	68

⁽¹⁾ VMO2 entered into various derivative instruments to manage interest rate exposure and foreign currency exposure. Generally, VMO2 does not apply hedge accounting to its derivative instruments. Accordingly, changes in the fair values of most of its derivatives are recorded in the finance results of its consolidated income statement.

⁽²⁾ Amount related to incentive awards held by certain employees of VMO2 associated with ordinary shares of Liberty Global and Telefónica. Share-based compensation expense is included in Operating expenses in the consolidated income statement of VMO2.

Commitments

Millions of euros	2023	2024	2025	2026	2027	Subsequent years	Total
Purchase commitments	1,106	154	89	60	58	37	1,504
Programming commitments	698	606	446	437	413	204	2,804
Network and connectivity commitments	891	82	57	24	22	199	1,275
Other commitments	359	265	264	266	124	16	1,294
Total commitments VMO2 (100%)	3,054	1,107	856	787	617	456	6,877

Purchase commitments include unconditional and legally binding obligations related to the purchase of customer premises and other equipment and certain service-related commitments, including call center, information technology and maintenance services.

Programming commitments consist of obligations associated with programming contracts that are enforceable and legally binding that includes minimum fees.

Network and connectivity commitments include service commitments associated with the network extension program in the U.K. and commitments associated with the mobile virtual network operator (MVNO) agreements.

On the date of closing of the transaction, Telefónica and Liberty Global entered with VMO2 into certain service agreements, either on a transitional or ongoing basis. Likewise, Telefónica licensed the use of Telefónica and O2 brand rights to VMO2 (see Note 29.c).

The breakdown of balances and transactions related to associates and joint ventures recognized with VMO2 in the consolidated statement of financial position and consolidated income statement is as follows:

Millions of euros	12/31/2022	12/31/2021
Receivables from associates and joint ventures for current operations	40	54
Payables to associates and joint ventures	5	259

Millions of euros	2022	2021
Revenue from operations with associates and joint ventures	130	103
Expenses from operations with associates and joint ventures	63	29

"Payables to associates and joint ventures" includes the obligation at December 31, 2021 in relation to the O2 UK pension plans arising as a result of the constitution of VMED O2 UK Ltd. amounting to 213 million pounds sterling (253 million euros at closing exchange rate of 2021, see Note 22) and that it has been paid in 2022 (see Note 28).

Movistar Prosegur Alarmas

In July 2021 Movistar Prosegur Alarmas, S.L. (formerly Prosegur Alarmas España, S.L.) acquired 100% of Prosegur Soluciones, S.A.U.

The breakdown of the key financial highlights of Movistar Prosegur Alarmas group for the latest period available at the time of preparation of these consolidated financial statements and the reconciliation with the carrying amount in the Group are as follows:

Millions of euros	12/31/2022	12/31/2021
Assets	352	224
Liabilities	(346)	(202)
Net assets	6	22
Purchase price allocation		
Assets	136	146
Liabilities	(35)	(38)
Net assets	101	108
% Holding	50%	50%
Group's share in equity	54	65
Goodwill	198	198
Carrying amount in the Telefónica Group	252	263

FiBrasil

On March 2, 2021, Telefónica Brasil, S.A. ("Vivo") and Telefónica Infra, S.L., infrastructures unit of Telefónica's Group ("T. Infra"), reached an agreement with Caisse de dépôt et placement du Québec ("CDPQ") for the construction, development and operation of a fiber (FTTH) network in Brazil, in mid-sized cities outside the State of Sao Paulo, through a joint venture entity, FiBrasil Infraestructura e Fibra Ótica S.A. ("FiBrasil"). On July 2, 2021, once the pertinent authorizations were obtained, the transaction closed, in which Telefónica Group and CDPQ each held 50% in FiBrasil under a co-control governance model. Telefónica Group participation is distributed equally between Vivo and T.Infra.

The terms of the transaction encompass a total investment by CDPQ of up to 1,800 million reais (approximately 267 million euros at the date of the agreement), comprising payments to both Vivo and FiBrasil, for 50% stake in FiBrasil and also certain payments to be made by T. Infra in the equivalent economic terms, for a 25% stake in FiBrasil. CDPQ's capital contributions, in addition to expected leverage to be raised by the joint venture, will provide a fully funded business plan to accomplish FiBrasil's deployment targets.

Breakdown of balances and transactions with associates and joint ventures

The breakdown of items related to associates and joint ventures recognized in the consolidated statements of financial position and consolidated income statements is as follows:

Millions of euros	12/31/2022			12/31/2021		
	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Credits and other financial assets from associates and joint ventures	217	11	228	87	10	97
Receivables from associates and joint ventures (Note 14)	66	85	151	34	87	121
Long-term contractual liabilities to associates and joint ventures	82	51	133	—	31	31
Payables to associates and joint ventures (Note 22)	72	21	93	72	272	344
Short-term contractual liabilities to associates and joint ventures	7	12	19	—	8	8
Other short-term liabilities to associates and joint ventures (Note 22)	—	1	1	—	—	—

Millions of euros	2022			2021			2020		
	Associates	Joint ventures	Total	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Revenue from operations with associates and joint ventures	209	251	460	65	263	328	13	255	268
Expenses from operations with associates and joint ventures	199	116	315	86	36	122	37	2	39
Financial revenues with associates and joint ventures	27	1	28	1	—	1	—	—	—
Financial expenses with associates and joint ventures	1	9	10	1	—	1	—	—	—

"Credits and other financial assets from associates and joint ventures" at December 31, 2022 includes 82 million euros of loans and 59 million euros of trade receivables granted by Colombia Telecomunicaciones, S.A. ESP BIC to the associate company Álamo Holdco, S.L. and its subsidiary Onnet Fibra Colombia S.A.S., respectively. Additionally, this line includes 75 million euros corresponding to the subordinated debt granted by Telefónica Chile to the associate company HoldCo Infraco, SpA. generated by the sale of 40% of the fiber optic business (87 million euros as of December 31, 2021, see Note 12).

"Long-term contractual liabilities to associates and joint ventures" at December 31, 2022 includes 82 million euros corresponding to Colombia Telecomunicaciones, S.A. ESP BIC with the associate company Onnet Fibra Colombia, S.A.S.

"Revenue from operations with associates and joint ventures" in 2022 mainly includes 88 million euros corresponding to the transactions of the Group with the associate company HoldCo Infraco SpA (52 million euros in 2021) and 97 million euros with the associate company Onnet Fibra Colombia, S.A.S. In 2021 it included 98 million euros corresponding to the transactions of the Group with the joint venture Tesco Mobile Ltd. from January 1, to the date of the incorporation of VMED O2 UK (232 million euros in 2020).

"Expenses from operations with associates and joint ventures" in 2022 mainly includes 121 million euros corresponding to the transactions of the Group with the associate company HoldCo Infraco SpA (50 million euros in 2021) and 39 million euros with the associate company Álamo Holdco, S.L.

Note 11. Related parties

Significant shareholders

The significant shareholders of the Company are Banco Bilbao Vizcaya Argentaria, S.A. (BBVA), CaixaBank, S.A. and BlackRock, Inc.

Based on the information provided by CaixaBank, S.A. for the 2022 Annual Report Corporate Governance, as updated per share capital of Telefónica, S.A. as of December 31, 2022, the shareholding of CaixaBank, S.A. in Telefónica's share capital were 3.50%.

Based on the information provided by Banco Bilbao Vizcaya Argentaria, S.A. (BBVA) for the 2022 Annual Report on Corporate Governance, as updated per share capital of Telefónica, S.A. as of December 31, 2022, the shareholding of BBVA in Telefónica's share capital were 4.87%. Likewise, and according to the aforementioned information provided by BBVA, the percentage of economic rights attributed to Telefónica, S.A. shares owned by BBVA amounts to 4.97% of the Company's share capital.

Based on the information notified by BlackRock, Inc to the CNMV on March 31, 2020, as updated per the share capital of Telefónica, S.A. as of December 31, 2022, the shareholding of BlackRock, Inc in Telefónica's share capital were 4.48%. Based on the Schedule 13G/A filed with the SEC, on October 7, 2022, BlackRock, Inc. beneficially owned 4.96% of Telefónica, S.A. shares and 4.49% of voting rights.

During 2022 and 2021, the Group carried out no significant transactions with BlackRock, Inc. other than the corresponding dividends paid.

The following is a summary of significant transactions between the Telefónica Group and BBVA and CaixaBank companies, other than the payment of the dividend corresponding to its shareholding. All transactions were carried out at market prices.

Participated companies

On November 20, 2020, Telefónica Digital España, S.L.U. and Compañía Chilena de Inversiones, S.L., an affiliated company of BBVA, entered into an agreement related to the incorporation of a subsidiary in Colombia with the aim of commercializing loans to consumers and SME in such country. On January 5, 2021, this company was incorporated as a 50/50 joint venture between the two companies, under the name Movistar Consumer Finance Colombia, S.A.S (see Note 10).

The Telefónica Group holds a 50% interest in Telefónica Consumer Finance, E.F.C., S.A., a company controlled by CaixaBank (see Note 10).

The Telefónica Group and BBVA each hold a 44.44% interest in the joint venture Adquira España, S.A. (see Note 10).

The Telefónica Group has a 50% interest in Telefónica Factoring España and its subsidiaries in Brazil, Peru, Colombia, Mexico, Chile and Ecuador, accounted for by the equity method (see Note 10), in which BBVA and CaixaBank have minority interests.

On July 21, 2022, Telefónica, S.A. and CaixaBank Payments and Consumer E.F.C., E.P., S.A. incorporated the company Telefónica Renting, S.A. 50% each. This company is controlled by CaixaBank.

The balances as of December 31, 2022 and 2021, and the transactions carried out in 2022 and 2021 of Telefónica Group companies with the aforementioned associates and joint ventures in which BBVA and CaixaBank hold interests are shown below:

Millions of euros	12/31/2022	12/31/2021
Receivables from associates and joint ventures for current operations	7	6
Payables to associates and joint ventures	7	36

Millions of euros	2022	2021
Revenue from operations with associates and joint ventures	13	13
Expenses from operations with associates and joint ventures	7	9
Finance cost from operations with associates and joint ventures	1	1

Derivatives

The net fair value of the outstanding derivatives as of December 31, 2022 contracted with BBVA and CaixaBank amounts to 185 and 41 million euros, respectively (314 and 26 million euros, respectively, as of December 31, 2021).

The nominal value of these derivatives amounted to 5,778 and 264 million euros, respectively (6,664 million euros with BBVA and 264 million euros with CaixaBank in 2021). As explained in the 'Derivatives policy' section of Note 19, this volume is so high because derivatives can be applied several times to the same underlying asset for an amount equal to its face value. As of December 31, 2022, the derivatives contracted with BBVA and CaixaBank account for approximately 7% of the total amount of outstanding derivatives contracted by the Group with external counterparties (see Note 19).

Additionally, at December 31, 2022, collateral guarantees on derivatives from BBVA and CaixaBank have been received, amounting to 236 million euros and 43 million euros, respectively (262 million euros and 21 million euros respectively at December 31, 2021).

Renting operations with CaixaBank

In mid-2021, a new Fusion portfolio came into force that included a rental device. The Group has an agreement with CaixaBank to in turn rent these devices (a model known as "rent to rent"), covered by a framework financing agreement previously formalized between Telefónica and CaixaBank. In 2022, the volume of these operations with CaixaBank amount to 405 million euros (186 million euros in 2021) which have involved 19 million euros in financial expenses. As of December 31, 2022, the balance of the account payable to CaixaBank amounted to 501 million euros (176 million euros as of December 31, 2021).

Likewise, the Group carries out other equipment rental operations with CaixaBank (equipment at customers' homes, such as routers or decoders). In 2022, the volume of this equipment leasing transactions was 82 million euros (92 million euros in 2021), with financial expenses amounting to 3 million euros (1 million euros in 2021). As of December 31, 2022, the debt with CaixaBank for these concepts amounts to 119 million euros (73 million euros in 2021).

Other operations

The impact on the consolidated income statement of the Telefónica Group of the rest of the operations with BBVA and CaixaBank in 2022 and 2021 is shown below:

BBVA		
Millions of euros	2022	2021
Finance costs	11	8
Receipt of services	7	14
Purchase of goods	—	2
Other expenses	3	19
Total costs	21	43
Finance income	14	5
Dividends received ⁽¹⁾	15	8
Services rendered	40	26
Sale of goods	7	9
Other income	7	5
Total revenues	83	53

⁽¹⁾ At December 31, 2022, Telefónica held a 0.73% stake (0.66% stake at December 31, 2021) in the share capital of Banco Bilbao Vizcaya Argentaria, S.A. (see Note 12).

CaixaBank		
Millions of euros	2022	2021
Finance costs	6	6
Receipt of services	5	10
Purchase of goods	53	57
Total costs	64	73
Services rendered	69	83
Sale of goods	51	67
Other income	2	1
Total revenues	122	151

The following table shows the balance sheet positions of these operations as of December 31, 2022 and 2021, as well as the current guarantees and other off-balance sheet positions.

BBVA		
Millions of euros	December 31,2022	December 31,2021
Finance arrangements: loans, capital contributions and others (borrower)	140	155
Finance arrangements: loans and capital contributions (lender)	13	10
Factoring operations	—	108
Guarantees	165	147

CaixaBank		
Millions of euros	December 31,2022	December 31,2021
Finance arrangements: loans, capital contributions and others (borrower)	148	145
Finance arrangements: loans and capital contributions (lender)	37	82
Factoring operations	—	28
Guarantees	160	190

Other related parties

The most significant balances and transactions with associates and joint ventures are detailed in Note 10.

During 2022 and 2021, the Directors and senior executives performed no transactions with Telefónica, S.A. or any Telefónica Group company other than those in the Group's normal trading activity and business. Compensation and other benefits paid to members of the Board of Directors and senior executives are detailed in Note 29.g and Appendix II.

Telefónica contracted a civil liability insurance scheme (D&O) for Directors, managers and staff with similar functions in the Telefónica Group, with standard conditions for these types of insurance and a premium attributable to 2022 of 6,598,467 euros (5,303,931 euros in 2021). This scheme provides coverage for Telefónica, S.A. and its subsidiaries in certain cases.

Note 12. Financial assets and other non-current assets

The breakdown of financial assets and other non-current assets of the Telefónica Group at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Non-current financial assets (Note 16)	6,219	6,062
Investments	497	479
Other long-term credits	981	890
Deposits and guarantees	1,163	1,254
Trade receivables	1,019	752
Receivables for subleases	19	27
Impairment of trade receivables	(128)	(112)
Derivative financial assets (Note 19)	2,668	2,772
Other non-current assets	1,882	1,285
Contractual assets (Note 23)	359	209
Deferred expenses (Note 23)	854	555
Long-term receivables for taxes	345	299
Prepayments	324	222
Total	8,101	7,347

Non-current financial assets

The movement in investments, other long-term credits, deposits and guarantees, trade receivables, long-term receivables for subleases and impairment of trade receivables in 2022 and 2021, is as follows:

Millions of euros	Investments	Other long-term credits	Deposits and guarantees	Trade receivables	Long-term receivables for subleases	Impairment of trade receivables
Balance at 12/31/20	457	252	1,633	551	15	(122)
Additions	9	686	195	540	11	(6)
Disposals	(41)	(6)	(30)	(272)	—	45
Translation differences	—	(9)	9	—	—	(2)
Fair value adjustments and financial updates	56	14	8	(2)	—	—
Transfers and other	(2)	(47)	(561)	(65)	1	(27)
Balance at 12/31/21	479	890	1,254	752	27	(112)
Additions	12	503	64	616	4	(10)
Disposals	(74)	(94)	(33)	(162)	(4)	3
Translation differences	(1)	2	69	12	1	(13)
Fair value adjustments and financial updates	80	64	26	(2)	—	—
Transfers and other	1	(384)	(217)	(197)	(9)	4
Balance at 12/31/22	497	981	1,163	1,019	19	(128)

Investments

"Investments" includes the fair value of investments in companies where Telefónica exercises no significant influence or control and for which there is no specific short-term disposal plan (see Note 3.i).

The Telefónica Group's shareholding in Banco Bilbao Vizcaya Argentaria, S.A. (BBVA) amounted to 249 million euros (232 million euros at December 31, 2021), representing 0.73% of its share capital at December 31, 2022 (0.66% at December 31, 2021).

At December 31, 2022, Telefónica maintained a 0.59% stake in the share capital of China Unicom (Hong Kong) Limited, valued at 105 million euros (same percentage at December 31, 2021, valued at 80 million euros).

On May 19, 2022 Telefónica signed an agreement with the company Global Alconaba, S.L., for the sale of 50,147,058 shares of Promotora de Informaciones, S.A. (PRISA), equivalent to 7.076% of its share capital. As a result of this sale, 71 million euros of losses from financial assets measured at fair value through comprehensive income have been reclassified to retained earnings. As of December 31, 2022 Telefónica's shareholding in PRISA amounted to 1.87% of the company's share capital and was valued at 4 million euros (9.03% at December 31, 2021 valued at 36 million euros).

Other long-term credits

This line item includes long-term financial assets of Telefónica Germany amounting to 104 million euros and 85 million euros at December 31, 2022 and 2021, respectively, that are mainly intended to cover obligations from the defined benefit plan of Telefónica Germany but do not represent "plan assets" in accordance with IAS 19 (see Note 24).

Additions for the year 2022 include financial instruments (Federal Treasury Certificates) of Pegaso PCS, S.A. de C.V. amounting to 260 million euros, for the purpose of securing certain legal proceedings with the Mexican tax Administration Service. These instruments are classified as long-term based on the estimated term of the proceedings and accrue interest according to the time elapsed (see Note 28).

Additionally, additions for the year 2022 include 82 million euros of loans granted by Colombia Telecomunicaciones, S.A. ESP BIC to the associate company Álamo Holdco, S.L. (see Note 10).

At December 31, 2022 other long-term credits include 75 million euros corresponding to the subordinated debt granted by Telefónica Chile to the associate company HoldCo Infraco, SpA. generated by the sale of 40% of the fiber optic business (87 million euros as of December 31, 2021, see Note 10).

"Additions" in 2021 included the notes issued by the international issue platform Single Platform Investment Repackaging Entity, S.A. ("Spire") deposited in a securities account owned by Telefónica, S.A. with a notional of 1,000 million dollars of which 295 million euros are registered as "Other long-term credits" and 591 million euros were registered as "other current financial assets". Transfers for the year 2022 include the short-term transfer of the notes mentioned above for an amount of 313 million euros, all of which were registered at December 31, 2022 in "Other current financial assets" for an amount of 939 million euros (see Note 15).

Additionally in 2021, Telxius recorded additions amounting to 246 million euros associated with the collection right arising with American Tower Corporation as a result of the sale of the telecommunications towers division in Europe (Spain and Germany) in June 2021. At December 31, 2022 the collection right amounted to 264 million euros.

The vast majority of long-term credits, recognized at amortized cost (Note 16), are considered to be low credit risk assets, therefore the impairment analysis was carried out on the basis of expected credit losses in the next twelve months.

Deposits and guarantees

Telefónica Brazil has non-current judicial deposits amounting to 501 million euros (see Note 24) at December 31, 2022 (431 million euros at December 31, 2021).

At December 31, 2022, there were deposits related to the collateral guarantees on derivatives (CSA) signed by Telefónica, S.A. and its counterparties for the credit risk management of derivatives amounting to 365 million euros of which 42 million euros cross currency swap (564 million euros at December 31, 2021 that included 279 million euros related to cross currency swap).

In relation with collateral contracts, in 2022 there is an additional guarantee of 79,034 bonds issued by Telefónica Emisiones, S.A.U. deposited in a securities account owned by Telefónica, S.A. with a notional of 78 million euros at December 31, 2022 (166,678 bonds for a nominal amount of 173 million euros at December 31, 2021).

The vast majority of deposits and guarantees recognized at amortized cost (Note 16), are considered to be low credit risk assets, therefore the impairment analysis was carried out on the basis of expected credit losses in the next 12 months.

Trade receivables

"Additions" for the year in 2022 include trade receivables amounting to 69 million euros from Colombia Telecomunicaciones, S.A. ESP BIC to the associate Onnet Fibra Colombia SAS, 59 million euros at December 31, 2022, see Note 10.

At December 31, 2022 includes Telefónica Germany trade receivables at fair value through other comprehensive income for an amount of 292 million euros (269 million euros as of December 31, 2021, see Note 16).

Note 13. Inventories

The detail of inventories of the Telefónica Group at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Audiovisual rights	823	1,131
Mobile terminals and other equipments	701	584
Other inventories	57	71
Inventories impairment provision	(35)	(37)
Inventories	1,546	1,749

"Audiovisual rights" mainly includes the rights to broadcast sport events (see Note 29.c) and rights to broadcast films, television series and documentaries (see Note 3.j).

Note 14. Receivables and other current assets

The detail of receivables and other current assets of the Telefónica Group at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Receivables (Note 16)	7,340	6,903
Trade receivables	9,680	8,926
Impairment of trade receivables	(2,891)	(2,531)
Receivables from associates and joint ventures (Note 10)	151	121
Other receivables	400	387
Other current assets	1,794	1,384
Contractual assets (Note 23)	195	133
Capitalized costs (Note 23)	885	668
Prepayments	714	583
Total	9,134	8,287

The movement in impairment of trade receivables in 2022 and 2021 is as follows:

	Millions of euros
Impairment provision at December 31, 2020	2,549
Allowances	598
Inclusion of companies	(38)
Amounts applied	(545)
Translation differences and other	(33)
Impairment provision at December 31, 2021	2,531
Allowances	613
Transfers	12
Amounts applied	(397)
Translation differences and other	132
Impairment provision at December 31, 2022	2,891

Public-sector net trade receivables at December 31, 2022 and 2021 amounted to 518 million euros and 439 million euros, respectively.

The detail of the age of the accounts receivable balances from customers and their corrections for impairment as of December 31, 2022 and 2021 is as follows:

Millions of euros	12/31/2022		12/31/2021	
	Trade receivables	Impairment	Trade receivables	Impairment
Unbilled receivables	2,495	(9)	2,316	(16)
Amount not overdue invoiced	3,011	(154)	2,976	(114)
Less than 90 days	1,024	(160)	893	(141)
Between 90 and 180 days	347	(150)	333	(125)
Between 180 and 360 days	534	(381)	416	(306)
More than 360 days	2,269	(2,037)	1,992	(1,829)
Total	9,680	(2,891)	8,926	(2,531)

Note 15. Other current financial assets

The breakdown of other financial assets of the Telefónica Group at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Short-term credits	128	1,306
Short-term deposits and guarantees	439	760
Short-term derivative financial assets (Note 19)	712	995
Other current financial assets	1,165	774
Total	2,444	3,835

Short-term credits at December 31, 2021, included bank deposits with a maturity in one month formalized by Telfisa Global, B.V. which amounted to 1,190 million euros.

Short-term deposits and guarantees at December 31, 2022 include current judicial deposits amounting to 106 million euros (see Note 24) constituted by Telefónica Brazil (17 million euros at December 31, 2021) including the judicial deposit of the amount withheld from the acquisition price of OI's mobile assets, in the amount of 522 million Brazilian reais (94 million euros, see Note 5).

At December 31, 2021, 433 million euros of deposits maturing in more than 90 days from Telefónica Móviles Chile were included, contracted with the funds obtained from the issue in November 2021 of a bond (see Appendix III).

Additionally at December 31, 2022 there were 232 million euros registered in deposits (150 million euros at December 31, 2021), associated with collateral guarantees of Telefónica, S.A. classified as current according to the maturity of the underlying derivative instruments which they relate to.

The vast majority of short-term credits and deposits and guarantees recognized at amortized cost and at fair value with changes in "Other comprehensive income" (Note 16) are considered to be low credit risk assets.

"Other current financial assets" include short-term investments in financial instruments to cover commitments undertaken by the Group's insurance companies, amounted to 126 million euros at December 31, 2021 (105 million euros at December 31, 2021) and were recorded at fair value.

Additionally at December 31, 2022 this included the notes issued by the international issue platform Single Platform Investment Repackaging Entity, S.A. ("Spire"). These notes were deposited in a securities account owned by Telefónica, S.A. with a notional of 1,000 million dollars equivalent to 939 million euros registered entirely under "Other current financial assets". At December 31, 2021 1,000 million dollars were deposited, of which 591 million euros were registered as "Other current financial assets" and 295 million euros were registered as "Other long-term credits" (see Note 12).

Current financial assets that are highly liquid and have maturity periods of three months or less from the date contracted, and present an insignificant risk of value changes, are recorded under "Cash and cash equivalents" on the accompanying consolidated statement of financial position.

Note 16. Breakdown of financial assets

The breakdown of financial assets of the Telefónica Group at December 31, 2022 is as follows:

December 31, 2022

Millions of euros	Fair value through profit or loss		Fair value through other comprehensive income		Measurement hierarchy						
	Held for trading	Fair value option	Debt instruments	Equity instruments	Hedges	Level 1 (Quoted prices)	Level 2 (Other directly observable market inputs)	Level 3 (Inputs not based on observable market data)	Amortized cost	Total carrying amount	Total fair value
Non-current financial assets (Note 12)	323	—	350	465	2,404	464	3,067	11	2,677	6,219	6,219
Investments	32	—	—	465	—	390	107	—	—	497	497
Credits and other financial assets	27	—	58	—	—	74	—	11	896	981	981
Deposits and guarantees	—	—	—	—	—	—	—	—	1,163	1,163	1,163
Derivative instruments	264	—	—	—	2,404	—	2,668	—	—	2,668	2,668
Trade receivables	—	—	292	—	—	—	292	—	727	1,019	891
Trade receivables for subleases	—	—	—	—	—	—	—	—	19	19	19
Impairment of trade receivables	—	—	—	—	—	—	—	—	(128)	(128)	—
Current financial assets	405	—	833	—	466	181	1,513	10	15,325	17,029	17,029
Trade receivables (Note 14)	—	—	792	—	—	—	792	—	9,439	10,231	7,340
Impairment of trade receivables (Note 14)	—	—	—	—	—	—	—	—	(2,891)	(2,891)	—
Other current financial assets (Note 15)	405	—	41	—	466	181	721	10	1,532	2,444	2,444
Cash and cash equivalents	—	—	—	—	—	—	—	—	7,245	7,245	7,245
Total	728	—	1,183	465	2,870	645	4,580	21	18,002	23,248	23,248

The calculation of the fair values of the Telefónica Group's debt instruments required an estimate, for each currency and counterparty, of a credit spread curve using the prices of the Group's bonds and credit derivatives.

The breakdown of financial assets of the Telefónica Group at December 31, 2021 was as follows:

December 31, 2021

Millions of euros	Fair value through profit or loss		Fair value through other comprehensive income		Measurement hierarchy							Total carrying amount	Total fair value
	Held for trading	Fair value option	Debt instruments	Equity instruments	Hedges	Level 1 (Quoted prices)	Level 2 (Other directly observable market inputs)	Level 3 (Inputs not based on observable market data)	Amortized cost				
Non-current financial assets (Note 12)	506	—	269	452	2,301	380	3,148	—	2,534	6,062	6,062		
Investments	27	—	—	452	—	372	107	—	—	479	479		
Credits and other financial assets	8	—	—	—	—	8	—	—	882	890	890		
Deposits and guarantees	—	—	—	—	—	—	—	—	1,254	1,254	1,254		
Derivative instruments	471	—	—	—	2,301	—	2,772	—	—	2,772	2,772		
Trade receivables	—	—	269	—	—	—	269	—	483	752	640		
Trade receivables for subleases	—	—	—	—	—	—	—	—	27	27	27		
Impairment of trade receivables	—	—	—	—	—	—	—	—	(112)	(112)	—		
Current financial assets	218	1	956	—	908	160	1,923	—	17,235	19,318	19,318		
Trade receivables (Note 14)	1	—	917	—	—	—	918	—	8,516	9,434	6,903		
Impairment of trade receivables (Note 14)	—	—	—	—	—	—	—	—	(2,531)	(2,531)	—		
Other current financial assets (Note 15)	217	1	39	—	908	160	1,005	—	2,670	3,835	3,835		
Cash and cash equivalents	—	—	—	—	—	—	—	—	8,580	8,580	8,580		
Total	724	1	1,225	452	3,209	540	5,071	—	19,769	25,380	25,380		

Note 17. Equity

a) Share capital and share premium

2022

At December 31, 2022, Telefónica, S.A.'s share capital amounted to 5,775,237,554 euros and is divided into 5,775,237,554 common shares, of a single series and with a par value of 1 euro each, fully paid in. All the shares of the Company have the same characteristics and carry the same rights and obligations.

The Board of Directors of Telefónica, S.A. at its meeting held on April 8, 2022, has resolved to carry out the implementation of the share capital reduction through the cancellation of own shares approved by the Annual General Shareholders' Meeting held on April 8, 2022.

In April 2022, the share capital of Telefónica, S.A. was reduced in the amount of 139,275,057 euros, through the cancellation of 139,275,057 own shares of the Company held as treasury stock, with a nominal value of one euro each. The share capital of the Company resulting from the reduction was set at 5,639,772,963 euros corresponding to 5,639,772,963 shares with a nominal value of one euro each. Related to the capital reduction the share premium was reduced by 409 million euros.

The reduction did not entail the return of contributions to the shareholders since the Company is the owner of the cancelled shares. The reduction was carried out with a charge to unrestricted reserves, through the allocation of a reserve for cancelled share capital in an amount equal to the nominal value of the cancelled shares (i.e. for an amount of 139,275,057 euros), which may only be used in compliance with the same requirements as those established for the reduction of share capital, by application of the provisions of section 335. c) of the Spanish Companies Act. Accordingly, as laid down in such section, the creditors of the Company will not have the right to oppose the reduction mentioned in section 334 of the Spanish Companies Act in connection with the share capital reduction.

On April 22, 2022, the deed relating to the share capital reduction was registered in the Commercial Registry of Madrid.

On June 24, 2022 the deed of capital increase amounting to 135,464,591 euros, divided into 135,464,591 ordinary shares, with a nominal value of one euro each, and issued against reserves as part of the scrip dividend, was filed in the Madrid Commercial registry. Following the share capital increase, the share capital was set up at 5,775,237,554 euros.

The shares of Telefónica, S.A. are represented by book entries that are listed on the Spanish Electronic Market (within the selective Ibx 35 index) and on the four Spanish Stock Exchanges (Madrid, Barcelona, Valencia and Bilbao), as well as on the New York and Lima Stock Exchanges (on these latter two Exchanges through American Depositary Shares (ADSs), with each ADS representing one share of the Company).

2021

At December 31, 2021, Telefónica, S.A.'s share capital amounted to 5,779,048,020 euros and is divided into 5,779,048,020 common shares, of a single series and with a par value of 1 euro each, fully paid in.

The Board of Directors of Telefónica, S.A. at its meeting held on April 23, 2021, resolved to carry out the implementation of the share capital reduction through the cancellation of own shares approved by the Annual General Shareholders' Meeting held on April 23, 2021.

The share capital of Telefónica, S.A. was reduced in the amount of 82,896,466 euros, through the cancellation of 82,896,466 own shares of the Company held as treasury stock, with a nominal value of one euro each. The share capital of the Company resulting from the reduction was set at 5,443,534,596 euros corresponding to 5,443,534,596 shares with a nominal value of one euro each. Related to the capital reduction the share premium was reduced by 305 million euros.

The reduction was carried out with a charge to unrestricted reserves, through the allocation of a reserve for cancelled share capital in an amount equal to the nominal value of the cancelled shares (i.e. for an amount of 82,896,466 euros), which may only be used in compliance with the same requirements as those established for the reduction of share capital. Accordingly, the creditors of the Company did not have the right to oppose the reduction mentioned in section 334 of the Spanish Companies Act in connection with the share capital reduction.

On May 5, 2021, the deed relating to the share capital reduction was registered in the Commercial Registry of Madrid.

On June 22, 2021 the deed of capital increase amounting to 194,518,911 euros, divided into 194,518,911 ordinary shares, with a nominal value of one euro each, and issued against reserves as part of the scrip dividend, was filed in the Madrid Commercial registry. Following the share capital increase, the share capital was set up at 5,638,053,507 euros.

On November 3, 2021, the Board of Directors agreed to submit for the approval of the General Shareholders Meeting of the Company the adoption of the appropriate corporate resolutions to execute a capital reduction by means of a redemption of treasury shares representing approximately 1.65% of the share capital.

On December 23, 2021, the capital increased in the amount of 140,994,513 euros, in which 140,994,513 ordinary shares with a par value of one euro each were issued against reserves as part of the scrip dividend. Following the share capital increase, the share capital was set at 5,779,048,020 euros. On that date, the deed was filed in Madrid Companies' Register.

Authorizations by Shareholders' Meeting

As regards the authorizations conferred in respect of the share capital, the shareholders acting at the Ordinary General Shareholders' Meeting held on June 12, 2020 resolved to delegate to the Board of Directors, as broadly as required by Law, pursuant to the provisions of Section 297.1.b) of the Companies Act, the power to increase the share capital on one or more occasions and at any time, within a period of five year from the date of adoption of such resolution, by the maximum nominal amount of 2,596,065,843 euros, equal to one-half of the share capital of the Company on the date of adoption of the resolution at the General Shareholders' Meeting, issuing and floating the respective new shares for such purpose with or without a premium, the consideration for which will consist of monetary contributions, with express provision for incomplete subscription of the shares to be issued. The Board of Directors was also authorized to exclude pre-emptive rights in whole or in part, as provided in section 506 of the Companies Act. However, the power to exclude pre-emptive rights is limited to 20% of the share capital on the date on which the resolution is adopted. In accordance with the above-mentioned authorization, as of the end of fiscal year 2022, the Board would be authorized to increase the share capital by the maximum nominal amount of 2,596,065,843 euros.

Furthermore, the shareholders acting at the Ordinary General Shareholders' Meeting of Telefónica, S.A. held on June 12, 2020 delegated to the Board of Directors, in accordance with the general rules governing the issuance of debentures and pursuant to the provisions of applicable law and the Company's By-Laws, the power to issue securities, including preferred shares and warrants, with the power to exclude the pre-emptive rights of shareholders. The aforementioned securities may be issued on one or more occasions, within a maximum period of five years as from the date of adoption of the resolution. The securities issued may be debentures, bonds, notes and other fixed-income securities, or debt instruments of a similar nature, or hybrid instruments in any of the forms admitted by Law (including, among others, preferred interests) both simple and, in the case of debentures, bonds and hybrid instruments, convertible into shares of the Company and/or exchangeable for shares of the Company, of any of the companies of its Group or of any other company and/or giving the holders thereof an interest in the corporate earnings. Such delegation also includes warrants or other similar instruments that may entitle the holders thereof, directly or indirectly, to subscribe for or acquire newly-issued or outstanding shares, payable by physical delivery or through differences. The aggregate amount of the issuance or issuances of instruments that may be approved in reliance on this delegation may not exceed, at any time, 25,000 million euros or the equivalent thereof in another currency. In the case of notes and for purposes of the above-mentioned limits, the outstanding balance of those issued in reliance on the delegation shall be computed. In the case of warrants, and also for the purpose of such limit, the sum of the premiums and exercise prices of each issuance shall be taken into account.

Furthermore, under the aforementioned delegation resolution, the shareholders at the Ordinary General Shareholders' Meeting of Telefónica, S.A. resolved to authorize the Board of Directors to guarantee, in the name of

the Company, the issuance of the aforementioned instruments issued by the Companies belonging to its Group of Companies, within a maximum period of five years as from the date of adoption of the resolution.

Furthermore, on June 8, 2018, shareholders voted to authorize the acquisition by the Board of Directors of Telefónica, S.A. treasury shares, up to the limits and pursuant to the terms and conditions established at the Shareholders' Meeting, within a maximum five-year period from that date. However, it specified that in no circumstances could the par value of the shares acquired, added to that of the treasury shares already held by Telefónica, S.A. and by any of its controlled subsidiaries, exceed the maximum legal percentage at any time.

b) Dividends

Dividends distribution in 2022

Approval was given at the General Shareholders' Meeting of April 8, 2022 to pay a dividend in two tranches. The first tranche through a scrip dividend amounting to approximately 0.15 euros per share took place on June 2022 and consist on the assignment of free allotment rights with an irrevocable purchase commitment by the Company. The second tranche amounting to approximately 0.15 euros per share took place in December 2022, after the adoption of the corresponding corporate resolutions.

At its meeting held on May 25, 2022, the Executive Commission of Telefónica, S.A. Board of Directors agreed to carry out the execution of the increase in paid-up capital, related to the shareholders compensation by means of a scrip dividend. Thus, each shareholder received one free allotment right for each Telefónica share held. Such free allotment rights were traded on the Continuous Market in Spain during a period of 15 calendar days. Once this trading period ended, the shareholders of 25.54% of the free-of-charge allotment rights accepted the irrevocable purchase commitment assumed by Telefónica, S.A. The payment to these shareholders was made on June 16, 2022. The gross impact of this dividend amounts to 213 million euros.

On the other hand, the shareholders of 74.46% of the free-of-charge allotment rights were entitled, therefore, to receive new shares of Telefónica, S.A. So the final number of shares issued on June 24, 2022 in the capital increase was 135,464,591 shares with a nominal value of 1 euro each.

The second tranche of the dividend was paid on December 15, 2022 and had an impact in equity amounting to 854 million euros.

Dividends distribution in 2021

Approval was given at the General Shareholders' Meeting of April 23, 2021 to pay a scrip dividend amounting to approximately 0.35 euros per share in two tranches, consisting of the assignment of free allotment rights with an irrevocable purchase commitment by the Company, and a subsequent capital increase by means of the issue of new shares to fulfill said allotments, following a specific calculation mechanism which might result in variations of the amount. The distribution of the first tranche, amounting approximately 0.20 euros per share, took place in June of 2021 and the second tranche amounting approximately 0.15 euros per share took place in December 2021, after the adoption of the corresponding corporate resolutions.

At its meeting held on May 26, 2021, the Executive Commission of Telefónica, S.A. Board of Directors agreed to carry out the execution of the increase in paid-up capital, related to the shareholders compensation by means of a scrip dividend. Thus, each shareholder received one free allotment right for each Telefónica share held. Such free allotment rights were traded on the Continuous Market in Spain during a period of 15 calendar days. Once this trading period ended, the shareholders of 28.53% of the free-of-charge allotment rights accepted the irrevocable purchase commitment assumed by Telefónica, S.A. Cash payment to these shareholders was made on June 17, 2021. The gross impact of this dividend amounts to 308 million euros.

On the other hand, the shareholders of 71.47% of the free-of-charge allotment rights were entitled, therefore, to receive new shares of Telefónica, S.A. So the final number of shares issued after June 22, 2021 in the capital increase was 194,518,911 shares with a nominal value of 1 euro each.

The Executive Commission of Telefónica, S.A. Board of Directors meeting of November 3, 2021 agreed the implementation of the second capital increase with charge to reserves related to the shareholder compensation by means of a scrip dividend. Thus, each shareholder received 1 free allotment right for each Telefónica share held. The shareholders of 34.98% of the free-of-charge allotment rights accepted the irrevocable purchase commitment assumed by Telefónica, S.A. Cash payment was made on December 17, 2021 and had an impact in equity amounting to 292 million euros.

On the other hand, the shareholders of 65.02% of the free-of-charge allotment rights were entitled, therefore, to receive new shares of Telefónica, S.A. So the final number of shares issued on December 23, 2021 in the capital increase was 140,994,513 shares with a nominal value of one euro each.

Dividends distribution in 2020

Approval was given at the General Shareholders' Meeting of June 12, 2020 to pay a scrip dividend amounting to approximately 0.40 euros per share in two tranches, consisting of the assignment of free allotment rights with an irrevocable purchase commitment by the Company, and a subsequent capital increase by means of the issue of new shares to fulfill said allotments, following a specific calculation mechanism which might result in variations of the amount. The distribution of the first tranche, amounting approximately 0.20 euros per share, took place in June of 2020 and the second tranche, amounting approximately 0.20 euros per share, took place in December 2020, after the adoption of the corresponding corporate resolutions.

At its meeting held on June 12, 2020, the Board of Directors agreed to carry out the execution of the increase in paid-up capital, related to the shareholders compensation by means of a scrip dividend. Thus, each shareholder received one free allotment right for each Telefónica share held. Such free allotment rights were traded on the Continuous Market in Spain during a period of 15 calendar days. Once this trading period ended, the shareholders of 36.99% of the free-of-charge allotment rights accepted the irrevocable purchase commitment assumed by Telefónica, S.A. Cash payment was made on July 3, 2020 and had an impact in equity amounting to 371 million euros.

On the other hand, the shareholders of 63.01% of the free of-charge allotment rights were entitled, therefore, to receive new shares of Telefónica, S.A. So the final number of shares issued after June 30, 2020 in the capital increase was 136,305,986 shares with a nominal value of 1 euro each.

The Executive Commission of Telefónica, S.A. Board of Directors meeting of December 4, 2020 agreed the implementation of the second capital increase with charge to reserves related to the shareholder compensation by means of a scrip dividend. The shareholders of 33.12% of the free of- charge allotment rights accepted the irrevocable purchase commitment assumed by Telefónica, S.A. Cash payment was made on December 30, 2020 and had an impact in equity amounting to 342 million euros.

On the other hand, the shareholders of 66.88% of the free of-charge allotment rights were entitled, therefore, to receive new shares of Telefónica, S.A. So the final number of ordinary shares with a nominal value of 1 euro issued in the capital increase was 197,993,390 corresponding to 3.72% of the share capital, being 197,993,390 euros the capital increase.

Proposed distribution of results of the parent company

Telefónica, S.A. generated 880 million euros of losses in 2022.

The Company's Board of Directors will submit the following proposed distribution of 2022 results for approval at the Shareholders' Meeting:

	Millions of euros
Legal reserve	—
Unrestricted reserves	(880)
Total	(880)

c) Other equity instruments

Undated deeply subordinated securities

Unless specified otherwise, undated deeply subordinated securities were issued by Telefónica Europe, B.V.

The characteristic of undated deeply subordinated securities, the detail of the tender offer and the amounts repurchased in the operations and the amount amortized in advance, are the following (million euros):

Issue date	Annual Fix	Variable	Exercisable by issuer	12/31/2021	Tender Offer	Amount repurchased	Redemption	12/31/2022
11/23/2022 ⁽¹⁾	7.125 %	from 11/23/28 rate SWAP + spread incremental	2028	—	—	—	—	750
11/24/2021 ⁽²⁾	2.875 %	from 05/24/28 rate SWAP + spread incremental	2028	750	—	—	—	750
2/12/2021 ⁽²⁾	2.376 %	from 05/12/29 rate SWAP + spread incremental	2029	1,000	—	—	—	1,000
2/5/2020 ⁽¹⁾	2.502 %	from 05/05/27 rate SWAP + spread incremental	2027	500	—	—	—	500
09/24/2019	2.875 %	from 09/24/27 rate SWAP + spread incremental	2027	500	—	—	—	500
03/14/2019	4.375 %	from 03/14/25 rate SWAP + spread incremental	2025	1,300	—	—	—	1,300
03/22/2018	3 %	from 12/04/23 rate SWAP + spread incremental	2023	824	824	(74)	—	750
	3.875 %	from 09/22/26 rate SWAP + spread incremental	2026	1,000	—	—	—	1,000
12/07/2017	2.625 %	from 06/07/23 rate SWAP + spread incremental	2023	676	676	(547)	(129)	—
03/31/2014	5.875 %	from 03/31/24 rate SWAP + spread incremental	2024	1,000	—	—	—	1,000
				7,550				7,550

⁽¹⁾ Green undated deeply subordinated securities (see Note 29.d)

⁽²⁾ Sustainable undated deeply subordinated securities (see Nota 29.d)

In all issuances of undated deeply subordinated securities (hybrid instruments), the issuer has an option to defer the payment of coupons and holders of such securities cannot call for payment.

As the repayment of principal and the payment of coupons depend solely on Telefónica's decision, these undated deeply subordinated securities are equity instruments and are presented under "Other equity instruments" in the accompanying consolidated statement of changes in equity.

In November 2022, Telefónica Europe, B.V. carried out several transactions on its hybrid capital: (a) a new issue amounting to 750 million euros, guaranteed by Telefónica, S.A. (see Note 29.d); (b) a tender offer on a hybrid instruments, denominated in euros, with first call dates in March and September 2023. The issuer accepted the purchase in cash of the tendered securities in a principal amount of 621 million euros.

In December 2022, Telefónica Europe, B.V. was exercised the clean-up call option for the remaining hybrid instruments with first non-call date March 2023, with an aggregate principal amount of 129 million euros.

In 2022, the payment of the coupons related to hybrids instruments, in an aggregate amount, net of tax effects, of 201 million euros (263 million and 335 million euros in 2021 and 2020, respectively), was recorded as “Retained earnings” in the consolidated statements of changes in equity. In 2022 and 2021, the payments related to the undated deeply subordinated securities include the premium of the tender offers carried out in these periods amounting to -1 million euros and 61 million euros, respectively.

d) Legal reserve

According to the consolidated text of the Spanish Corporate Enterprises Act, companies must transfer 10% of profit for the year to a legal reserve until this reserve reaches at least 20% of share capital. The legal reserve can be used to increase capital by the amount exceeding 10% of the increased share capital amount. Except for this purpose, until the legal reserve exceeds the limit of 20% of share capital, it can only be used to offset losses, if there are no other reserves available. At of December 31, 2022 the legal reserve amounts to 1,059 million euros representing 18.34% of the share capital at the date.

e) Retained earnings

These reserves include undistributed profits of companies constituting the consolidated Group minus interim dividends paid against profit for the year, actuarial gains and losses, the impact of the asset ceiling on defined benefit plans and the payment of coupons related to subordinated securities, if applicable.

These reserves also include revaluation reserves and the reserve for canceled share capital. These reserves are regulated by some restrictions for their distribution.

Revaluation reserves

The balance of Revaluation reserves arose as a result of the revaluation made pursuant to Spanish Royal Decree-Law 7/1996 of June 7, and may be used, free of tax, to offset any losses incurred in the future and to increase capital. It may also be allocated to unrestricted reserves, provided that the capital gain has been realized.

The capital gain will be deemed to have been realized in respect of the portion on which the depreciation was recorded for accounting purposes or when the revalued assets were transferred or recognized. In this respect, 4 million euros were reclassified to “Retained earnings” in 2022 (4 million euros in 2021) corresponding to revaluation reserves subsequently considered to be unrestricted. At December 31, 2022, this reserve amounted to 54 million euros (58 million euros at December 31, 2021).

Reserve for canceled share capital

In accordance with Section 335.c) of the Spanish Corporate Enterprises Act and to render null and void the right of opposition provided for in Section 334 of the same Act, whenever the Company decreases capital, it should record a reserve for canceled share capital for an amount equal to the par value of the canceled shares, which can only be used upon satisfaction of the same requirements as those applicable to the reduction of share capital. In 2022 was recorded in this account 139 million euros (83 million euros in 2021). The cumulative amount as of December 31, 2022 is 954 million euros.

f) Translation differences

The breakdown of the accumulated contribution of translation differences attributable to equity holders of the parent at December 31 is as follows:

Millions of euros	2022	2021	2020
Brazilian real	(14,031)	(15,292)	(15,365)
Pound sterling	(322)	309	(3,344)
Venezuelan bolivar	(3,734)	(3,755)	(3,754)
Argentine peso	(1,364)	(1,702)	(2,178)
Other currencies	(1,272)	(1,452)	(1,339)
Total Group	(20,723)	(21,892)	(25,980)

The negative translation differences of Telefónica United Kingdom accumulated in equity at June 1, 2021 were reclassified to the 2021 income statement as a result of the establishment of VMED O2 UK Ltd (see Note 2), for an amount of 3,135 million euros.

Likewise, the negative translation differences associated with the sale of the Telxius Group tower divisions and Telefónica de Costa Rica were also reclassified to the income statement for the amount of 37 and 21 million euros, respectively.

g) Treasury share instruments

Telefónica, S.A. held the following treasury shares at December 31, 2022, 2021 and 2020:

	Euros per share				
	Number of shares	Acquisition price	Trading price	Market value ^(*)	%
Treasury shares at 12/31/22	85,217,621	4.00	3.39	288	1.476 %
Treasury shares at 12/31/21	139,329,370	3.92	3.85	537	2.411 %
Treasury shares at 12/31/20	98,231,380	4.84	3.25	319	1.777 %

(*) Millions of euros.

The following transactions involving treasury shares were carried out in 2022, 2021 and 2020:

	Number of shares
Treasury shares at 12/31/19	77,562,635
Acquisitions	68,640,303
Scrip dividend	6,252,817
Employee share option plan	(3,118,898)
Other movements	(51,105,477)
Treasury shares at 12/31/20	98,231,380
Acquisitions	122,032,764
Scrip dividend	6,291,518
Employee share option plan	(4,329,826)
Capital reduction	(82,896,466)
Treasury shares at 12/31/21	139,329,370
Acquisitions	90,403,530
Scrip dividend	563,415
Employee share option plan	(5,391,956)
Capital reduction	(139,275,057)
Sales	(411,681)
Treasury shares at 12/31/22	85,217,621

There were treasury shares purchases in 2022 amounting to 365 million euros (478 and 234 million euros in 2021 and 2020, respectively)

On February 28, 2020, Telefónica de Contenidos, S.A.U. (currently Telefónica España Filiales, S.A.) acquired 50% of the capital stock of Prosegur Alarmas, S.L. with an in-kind delivery of 49,545,262 Telefónica shares, previously acquired to the Company, equivalent to 266 million euros as of the quotation on the delivery date included in "other movements".

On December 31, 2022, the third cycle of the Telefónica, S.A long-term incentive plan called "Performance Share Plan 2018-2022" and "Talent for the Future Share Plan 2018-2022" (see Note 27) ended.

The Company also has different derivative instruments, to be settled by offset, on a nominal value equivalent to 193 million of Telefónica shares recorded in the statement of financial position at December 31, 2022 in accordance with their maturity date and fair value (192 million euros at December 31, 2021).

h) Equity attributable to non-controlling interests

"Equity attributable to non-controlling interests" represents the share of non-controlling interests in the equity and income or loss for the year of fully consolidated Group companies. The movements in this balance for the 2022, 2021 and 2020 consolidated statements of financial position are as follows:

Millions of euros	Balance at 12/31/21	Sales of non-controlling interests and inclusion of companies	Acquisitions of non-controlling interests and exclusion of companies	Dividends paid	Profit/(loss) for the year	Change in translation differences	Other movements	Balance at 12/31/22
Telefónica Brasil, S.A.	3,106	—	(86)	(241)	198	425	(3)	3,399
Telefónica Deutschland Holding, A.G.	2,353	—	(48)	(161)	68	—	25	2,237
Colombia Telecomunicaciones, S.A., ESP	409	—	—	(7)	(4)	(47)	(7)	344
Telxius Telecom, S.A.	546	—	—	—	50	13	(10)	599
Other	63	23	(44)	(2)	(4)	2	3	41
Total	6,477	23	(178)	(411)	308	393	8	6,620

Millions of euros	Balance at 12/31/20	Sales of non-controlling interests and inclusion of companies	Acquisitions of non-controlling interests and exclusion of companies	Dividends paid	Profit/(loss) for the year	Change in translation differences	Other movements	Balance at 12/31/21
Telefónica Brasil, S.A.	3,106	—	(63)	(236)	271	17	11	3,106
Telefónica Deutschland Holding, A.G.	2,346	—	(56)	(165)	218	—	10	2,353
Colombia Telecomunicaciones, S.A., ESP	408	—	—	—	7	(28)	22	409
Telxius Telecom, S.A.	1,089	—	—	(2,645)	2,098	16	(12)	546
Other	76	—	—	(5)	(14)	5	1	63
Total	7,025	—	(119)	(3,051)	2,580	10	32	6,477

Millions of euros	Balance at 12/31/19	Sales of non-controlling interests and inclusion of companies	Acquisitions of non-controlling interests and exclusion of companies	Dividends paid	Profit/(loss) for the year	Change in translation differences	Other movements	Balance at 12/31/20
Telefónica Brasil, S.A.	4,442	(2)	—	(272)	217	(1,296)	17	3,106
Telefónica Deutschland Holding, A.G.	2,544	—	—	(156)	(30)	—	(12)	2,346
Colombia Telecomunicaciones, S.A., ESP	526	—	—	—	11	(62)	(67)	408
Telxius Telecom, S.A.	681	323	—	(44)	187	(69)	11	1,089
Other	139	—	(3)	(44)	(10)	(8)	2	76
Total	8,332	321	(3)	(516)	375	(1,435)	(49)	7,025

In 2022, "sales of non-controlling interest and inclusion of companies" reflected the impact of the acquisition by the consortium form by CAA and Vauban of 45% of the company Bluevia for 23 million euros (see Note 2).

In 2021 noteworthy is the result attributable to minority shareholders of Telxius from the sale of its telecommunications towers division (see Note 2) and the dividend distribution related with this transaction (Note 28).

In 2020, "Sales of non-controlling interests and inclusion of companies" reflected the capital increase of Telxius amounting to 645 million euros, of which 323 million euros correspond to non-controlling interest. The profit for the year attributed to Telxius Group in 2020 includes the effect of the recognition of deferred tax assets for temporary differences of Telxius Towers Germany amounting to 184 million euros.

Note 4 contains the revenues, OIBDA, Operating income, capital expenditure and the main items of the statement of financial position for the main segments of the Telefónica Group with non-controlling interests, namely Telefónica Brazil and Telefónica Germany. The detail of these figures for Colombia Telecomunicaciones and Telxius Telecom is as follows:

Millions of euros			
Colombia Telecomunicaciones	2022	2021	2020
Revenues	1,517	1,312	1,249
OIBDA	569	413	438
Depreciation and amortization	(308)	(314)	(325)
Operating income	261	99	113
Capital Expenditure	261	151	156
Fixed Assets	1,116	1,264	1,530
Total allocated assets	2,696	2,725	2,864
Total allocated liabilities	2,001	1,878	2,049

Millions of euros			
Telxius Telecom	2022	2021	2020
Revenues	421	587	826
OIBDA	218	6,332	520
Depreciation and amortization	(66)	(72)	(269)
Operating income	152	6,260	251
Capital Expenditure	65	91	348
Fixed Assets	507	475	452
Total allocated assets	2,129	2,083	2,840
Total allocated liabilities	1,163	1,225	2,785

The statements of cash flows of these companies are as follows:

Millions of euros			
Telefónica Brazil	2022	2021	2020
Net cash flow provided by operating activities	3,678	2,949	3,517
Net cash flow used in investing activities	(2,741)	(1,295)	(1,238)
Net cash flow used in financing activities	(1,674)	(1,467)	(1,817)
	(737)	187	462

Millions of euros			
Telefónica Germany	2022	2021	2020
Net cash flow provided by operating activities	2,732	2,407	2,386
Net cash flow used in investing activities	(1,608)	(875)	(459)
Net cash flow used in financing activities	(1,339)	(1,820)	(1,342)
	(215)	(288)	585

Millions of euros			
Colombia Telecomunicaciones	2022	2021	2020
Net cash flow provided by operating activities	180	344	276
Net cash flow provided by (used in) investing activities	30	(153)	(189)
Net cash flow provided by (used in) financing activities	(225)	(218)	(42)
	(15)	(27)	45

Millions of euros			
Telxius Telecom	2022	2021	2020
Net cash flow provided by operating activities	152	(627)	528
Net cash flow provided by (used in) investing activities	(63)	6,874	(1,141)
Net cash flow provided by (used in) financing activities	(89)	(6,164)	575
	—	83	(38)

Note 18. Financial liabilities

The breakdown of financial liabilities at December 31, 2022 and the corresponding maturities schedule is as follows:

Millions of euros									
Maturity	Current			Non-current			Subsequent years	Non-current total	Total
	2023	2024	2025	2026	2027				
Debentures and bonds	1,948	1,130	3,126	2,098	4,170	18,796	29,320	31,268	
Promissory notes & commercial paper	544	127	54	12	3	159	355	899	
Total Issues	2,492	1,257	3,180	2,110	4,173	18,955	29,675	32,167	
Loans and other payables	1,184	673	572	202	376	1,537	3,360	4,544	
Derivative instruments (Note 19)	344	80	65	109	520	1,250	2,024	2,368	
Total	4,020	2,010	3,817	2,421	5,069	21,742	35,059	39,079	

The estimate of future payments for interest on these financial liabilities at December 31, 2022 is as follows: 1,254 million euros in 2023, 1,147 million euros in 2024, 1,057 million euros in 2025, 978 million euros in 2026, 871 million euros in 2027 and 7,840 million euros in years after 2027. For floating rate financing, the Group mainly estimates future interest using the forward curve of the various currencies at December 31, 2022.

Derivative instruments in the table above include the fair value of derivatives classified as financial liabilities, i.e. when they have a negative mark-to-market, yet excluding the fair value of derivatives classified as current financial assets (712 million euros, see Note 15) and non-current financial assets (2,668 million euros, see Note 12).

In 2021 and 2022, the Group entered into agreements to extend payment terms with various suppliers, and with factoring companies when such payments are discounted. When the new extended payment terms exceed customary payment terms in the industry, trade liabilities are reclassified to other financial liabilities and the deferred payments made are recognized in net cash flows used in financing activities (see Note 28). At December 31, 2022, there was no outstanding balance pending payment. At December 31, 2021 the corresponding amount pending payment recognized in "Loans and other payables" line was 36 million euros.

The deferred payments made in relation to this item during the year amounted to 41 million euros (108 million euros in 2021).

The composition of the financial liabilities by category at December 31, 2022 and 2021 is as follows:

December 31, 2022									
Millions of euros	Fair value through profit or loss			Measurement hierarchy					
	Held for trading	Fair value option	Hedges	Level 1 (Quoted prices)	Level 2 (Other directly observable market inputs)	Level 3 (Inputs not based on observable market data)	Liabilities at amortized cost	Total carrying amount	Total fair value
Issues	—	—	—	—	—	—	32,167	32,167	29,314
Loans and other payables	—	—	—	—	—	—	4,544	4,544	4,514
Derivative instruments	973	—	1,395	—	2,368	—	—	2,368	2,368
Total financial liabilities	973	—	1,395	—	2,368	—	36,711	39,079	36,196

December 31, 2021

Millions of euros	Fair value through profit or loss			Measurement hierarchy			Liabilities at amortized cost	Total carrying amount	Total fair value
	Held for trading	Fair value option	Hedges	Level 1 (Quoted prices)	Level 2 (Other directly observable market inputs)	Level 3 (Inputs not based on observable market data)			
Issues	—	—	—	—	—	—	35,408	35,408	39,412
Loans and other payables	—	—	—	—	—	—	4,693	4,693	4,656
Derivative instruments	524	—	1,670	6	2,188	—	—	2,194	2,194
Total financial liabilities	524	—	1,670	6	2,188	—	40,101	42,295	46,262

The calculation of the fair values of the Telefónica Group's debt instruments required an estimate of the credit spread curve for each currency and corresponding subsidiary using the prices of the Group's bonds and credit derivatives.

At December 31, 2022, some of the financing arranged by Telefónica Group companies in Latin America (Peru), which amounted to approximately 1% of the Telefónica Group's gross debt, was subject to compliance with certain financial covenants. To date, these covenants are being met and have no impact on the debt of the Telefónica Group companies. Due to the absence of cross-defaults, breach of the covenants would not affect the debt at Telefónica, S.A. level.

Some of the financial liabilities of Telefónica Group includes adjustments in the amortized cost at December 31, 2022 and 2021 as a result of fair value interest rate and exchange rate hedges.

Issues, promissory notes, commercial paper, loans and other payables

The movement in issues, promissory notes, commercial paper, loans and other payables in 2022 and 2021 arising from financial activities is as follows:

Cash used in financing activities							
Millions of euros	Balance at 12/31/2021	Cash received	Cash paid	Translation differences and exchange gains and losses	Financial updates	Other movements	Balance at 12/31/2022
Issues	33,920	1,746	(3,541)	724	(1,623)	42	31,268
Promissory notes and commercial paper	1,488	7	(600)	4	—	—	899
Loans and other payables	4,693	742	(1,802)	55	(38)	894	4,544

Cash used in financing activities							
Millions of euros	Balance at 12/31/2020	Cash received	Cash paid	Translation differences and exchange gains and losses	Financial updates	Other movements	Balance at 12/31/2021
Issues	38,749	561	(5,847)	889	(444)	12	33,920
Promissory notes and commercial paper	2,273	53	(1,042)	5	—	199	1,488
Loans and other payables	4,535	3,120	(3,178)	(32)	80	168	4,693

Debentures and bonds

Financial updates of debenture and bond issues include mainly the value adjustment of the basis adjustment bonds due to their fair value hedges, impacted by interest rate hikes.

At December 31, 2022, the nominal amount of outstanding debentures and bonds issues was 31,095 million euros (32,156 million euros at December 31, 2021). Appendix III presents the characteristics of all outstanding debentures and bond issues at the year-end 2022, and the significant issues made during the year.

Telefónica, S.A. has a full and unconditional guarantee on issues made by Telefónica Emisiones, S.A.U., and Telefónica Europe, B.V., both of which are wholly owned finance subsidiaries of Telefónica, S.A. No other subsidiaries of Telefónica, S.A. provide guarantees on these issues.

Promissory notes and commercial paper

The main programs for issuance of promissory notes and commercial paper are the following:

- At December 31, 2022, Telefónica Europe, B.V. had a commercial paper issuance program guaranteed by Telefónica, S.A. for up to 5,000 million euros. The outstanding balance of commercial paper issued under this program at December 31, 2022 was 500 million euros, issued at an average interest rate of 0.28% for 2022 (999 million euros issued in 2021 at an average rate of -0.46%).
- At December 31, 2022, Telefónica, S.A. had a corporate promissory note program for 500 million euros expandable to 2,000 million euros, with no outstanding balance at December 31, 2022 (30 million euros at December 31, 2021).

Interest-bearing debt

Other movements in "Loans and other payables" at December 31, 2022 include collections and payments related to collateral liabilities deposit associated with Telefónica, S.A. debt for a net amount of 580 million euros (309 million euros at December 31, 2021).

The average interest rate on outstanding loans and other payables at December 31, 2022 was 3.45% (1.30% in 2021). This percentage does not include the impact of hedges arranged by the Group.

The main financing transactions included under "Interest-bearing debt" line outstanding at December 31, 2022 and 2021 and their nominal amounts are provided in Appendix V.

Interest-bearing debt arranged or repaid in 2022 mainly includes the following:

Description	Limit 12/31/2022 (million euros)	Currency	Outstanding balance 12/31/2022 (million euros)	Arrangement date	Maturity date	Drawdown 2022 (million euros)	Repayment 2022 (million euros)
Telefónica, S.A.							
Bilateral loan	—	EUR	150	09/26/2022	12/15/2032	150	—
Sustainable syndicated ⁽¹⁾	5,500	EUR	—	03/15/2018	01/13/2027	—	—
Bilateral loan	125	EUR	—	12/23/2022	06/23/2033	—	—
Colombia Telecomunicaciones S.A. E.S.P.							
Bilateral loan ⁽²⁾	—	USD	—	03/24/2020	01/26/2022	—	117
Telefónica Brasil, S.A.							
Bilateral loan	—	USD	199	04/04/2022	09/28/2023	199	—
Bluevia Fibra S.L.U.							
Syndicated	360	EUR	245	11/16/2022	12/20/2027	245	—
Telxius Telecom, S.A.							
Syndicated	300	EUR	201	12/01/2017	12/01/2024	100	70

⁽¹⁾ On January 13, 2022 there was maturity extension of the sustainability-linked syndicated loan facility for 5,500 million euros. The loan has two annual extension options at Telefónica, S.A. request with a maturity maximum up to 2029 (see Note 29.d).

⁽²⁾ On January 26, 2022 there was an early repayment for 132 million dollars of the bilateral loan originally scheduled to mature in 2023.

At December 31, 2022, the Telefónica Group presented availabilities of financing from different sources that amounted to approximately 11,737 million euros (12,182 million euros at December 31, 2021), of which 11,434 million euros will mature in more than twelve months.

Within these availabilities of financing, 10,114 million euros are included, whose interests are linked to the fulfillment of sustainability objectives. Of these, 3,864 million euros correspond to committed lines and bilateral financing, 750 million euros correspond to the sustainable syndicated loan of Telefónica Germany GmbH & Co. OHG (see Annex V) and 5,500 million euros correspond to the sustainable syndicated loan of Telefónica, S.A. (see Note 29.d).

Loans by currency

The breakdown of “Loans and other payables” line by currency at December 31, 2022 and 2021, and the equivalent value of foreign-currency loans in euros, is as follows:

Currency	Outstanding balance (in millions)			
	Local Currency		Euros	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Euro	2,823	3,148	2,823	3,148
U.S. dollar	514	885	481	781
Brazilian real	1,688	225	303	36
Colombian peso	1,402,435	1,399,759	273	310
Mexican peso	4,501	64	217	3
Uruguayan peso	5,456	5,456	128	108
Chilean Peso	181,601	177,845	199	186
Other currencies			120	121
Total Group			4,544	4,693

Note 19. Derivative financial instruments and risk management policies

The Telefónica Group is exposed to various financial market risks as a result of: (i) its ordinary business activity, (ii) debt incurred to finance its business, (iii) its investments in companies, and (iv) other financial instruments related to the above commitments.

The main market risks affecting the Group companies are as follows:

- **Exchange rate risk:** arises primarily from: (i) Telefónica's international presence, through its investments and businesses in countries that use currencies other than the euro (primarily in Latin America, but also in the United Kingdom), (ii) debt denominated in currencies other than that of the country where the business is conducted or the home country of the company incurring such debt, and (iii) for those trade receivables or payables in foreign currency related to the company with the transaction registered.

- **Interest rate risk:** arises primarily in connection with changes in interest rates affecting: (i) financial expenses on floating-rate debt (or short-term debt likely to be renewed), (ii) the value of long-term liabilities at fixed interest rates and (iii) financial expenses and principal payments of inflation-linked financial instruments, considering interest rate risk as the impact of changes in inflation rates.

- **Share price risk:** arises primarily from changes in the value of the equity investments (that may be bought, sold or otherwise involved in transactions), from changes in the value of derivatives associated with such investments, from changes in the value of treasury shares and from changes in the value of equity derivatives.

- **Liquidity risk:** arises due to a mismatch between financing needs (including operating and financial expenses, investment, debt redemptions and dividend commitments) and sources of finance (including revenues, divestments, credit lines from financial institutions and capital market transactions). The cost of finance could also be affected by movements in the credit spreads (over benchmark rates) demanded by lenders.

- **Country risk:** refers to the possible decline in the value of assets, cash flows generated or cash flows returned to the Parent company as a result of political, economic or social instability in the countries where the Telefónica Group operates, especially in Latin America.

- **Credit risk:** appears when a counterparty fails to meet or delays its payment obligations in accordance with the agreed terms, driving an impairment in an asset due to: (i) solvency issues, or (ii) no intention to pay.

Risk management

The Telefónica Group actively manages these risks through the use of derivatives (primarily on exchange rates, interest rates, credit, share prices and commodities) and by incurring debt in local currencies, where appropriate, with a view to optimize the financial cost and to stabilizing cash flows, the income statement and investments. In this way, it attempts to protect the Telefónica Group's solvency, facilitate financial planning and take advantage of investment opportunities.

The Telefónica Group manages its exchange rate risk and interest rate risk in terms of net financial debt (including leases under IFRS 16) plus commitments as calculated by the Group. The Telefónica Group believes that these parameters are more appropriate to understand its debt position. Net financial debt and net financial debt plus commitments take into account the impact of the Group's cash balance and cash equivalents including derivatives positions with a positive value linked to liabilities. Neither net financial debt nor net financial debt plus commitments as calculated by the Telefónica Group should be considered as a substitute for gross financial debt (the sum of current and non-current interest-bearing debt).

For a more detailed description on reconciliation of net financial debt and net financial debt plus commitments to gross financial debt, see Note 2.

Exchange rate risk

The fundamental objective of the exchange rate risk management policy is that, in event of depreciation in foreign currencies relative to the euro, any potential losses in the value of the OIBDA generated by the businesses in such currencies (caused by depreciation in exchange rates of a foreign currency relative to the euro) are offset (to some extent) by savings from the reduction in the euro value of debt denominated in such currencies. This objective is also reflected on the decrease of the sensitivity to exchange rate variations of the net debt to OIBDA ratio, in order to protect the Group's solvency. The degree of exchange rate hedging varies depending on the type of investment and may easily and actively be adjusted. For transactions of purchase or sale of business in currencies other than euro, additional hedges can be made on the estimated prices of the transactions or on estimated cash flows and OIBDA.

At December 31, 2022, the net financial debt in Latin American currencies was equivalent to approximately 6,360 million euros (6,853 million euros in 2021). However, the Latin American currencies in which this debt is denominated is not distributed in proportion to the OIBDA generated in each currency. The future effectiveness of the strategy described above as an economic hedge of exchange rate risks therefore depends on which currencies depreciate relative to the euro.

Telefónica occasionally takes out dollar-denominated debt to hedge the euro-dollar intermediate component in the relation Euro-Latin American currencies, either in Spain (where such debt is associated with an investment as long as it is considered to be an effective hedge) or in the country itself, where the market for local currency financing or hedges may be inadequate or non-existent. At December 31, 2022, the Telefónica Group's net financial debt denominated in dollars to hedge that component was equivalent to 978 million euros of asset position (418 million euros of asset position in 2021).

At December 31, 2022, net financial debt in pounds sterling was equivalent to 597 million euros (374 million euros at December 31, 2021). As a consequence of setting up in June 2021 of the joint venture VMO2 (see Note 2), the previous objective of maintaining a debt in pounds sterling in the consolidated balance sheet of the Group of twice OIBDA has been modified, as a result of changing the consolidation of UK assets (VMO2 is registered by equity method) and incorporating VMO2 to leverage higher than the ratio of twice Debt OIBDA. The synthetic debt target denominated in pounds will be directly related to the flows that are expected to be repatriated from VMO2.

The Telefónica Group also manages exchange rate risk by seeking to reduce the negative impact of any exchange rate exposure on the income statement, as a result of transactions recognized on the statement of financial position sheet and highly probable transactions, regardless of whether there are open positions. Such open position exposure can arise for any of three reasons: (i) a thin market for local derivatives or difficulty in sourcing local currency finance which makes it impossible to arrange a low-cost hedge (as in Argentina and Venezuela), (ii) financing through intra-group loans, where the accounting treatment of exchange rate risk is different from that for financing through capital contributions, and (iii) as the result of a deliberate policy decision, to avoid the high cost of hedges that are not warranted by expectations or high risk of depreciation.

The main transactions that generate or may generate exchange rate risk (regardless of whether or not they have an impact on the income statement) are, among others, as follows: issues in currencies other than the functional currency of the Group company, highly probable transactions in other currencies, future cash inflows in other currencies, investments and divestments, provisions for collections or payments and collections in foreign currency, the actual value of the investments (subsidiaries) in currencies other than the euro.

In 2022, net foreign exchange results were obtained from the management of the exchange rate (excluding monetary correction) for a total negative net result of 23.4 million euros (negative net result of 0.2 million euros in 2021).

The following table illustrates the sensitivity of foreign currency gains and sensitivity losses and of equity to changes in exchange rates, where: a) in calculating the impact on the income statement, the exchange rate position affecting the income statement at the end of 2022 was considered constant during 2023; b) in calculating the impact on equity, only monetary items have been considered, namely debt and derivatives such as hedges of net investment and loans to subsidiaries related to the investment, breakdown of which is considered constant in 2023 and identical to that existing at the end of 2022. In both cases, Latin American currencies are assumed to change their value against the dollar and the rest of the currencies against the euro by 10%.

Millions of euros

Currency	Change	Impact on the consolidated income statement	Impact on consolidated equity
All currencies vs EUR	10%	(11)	(314)
USD vs EUR	10%	—	(48)
Other currencies vs EUR	10%	1	(56)
Latin American currencies vs USD	10%	(12)	(210)
All currencies vs EUR	(10%)	11	314
USD vs EUR	(10%)	—	48
Other currencies vs EUR	(10%)	(1)	56
Latin American currencies vs USD	(10%)	12	210

The Group's monetary position in Venezuela at December 31, 2022 is a net asset position of 4,206 million Venezuelan digital bolivars equivalent to 87 million euros (240 million Venezuelan digital bolivars equivalent to 13 million euros at December 31, 2021). The net monetary position exposure in 2022 has been an asset position, which led to a higher financial expense of 101 million euros due to the effect of the monetary correction for inflation during the year (24 million euros of income in 2021).

Interest rate risk

The main objective of the interest rate risk management policy is to bring the Company's financing costs in line with the budget for financial expenses for the current year, as well as the current strategic plan. In accordance with this objective, Telefónica decided to actively adjust the exposure of its debt to interest rates, i.e., the amount of debt that would accrue interest at fixed rates and variable rates.

In order to meet this target, Telefónica mainly carried out the following:

- a) The interest rate of borrowings tied to a variable interest rate was set.
- b) Interest rate fluctuations of debt tied to a variable interest rate were reduced.
- c) Fixed rate debt instruments were converted into variable market rate debt instruments.

These transactions may be carried out against an existing underlying asset or those that are highly likely to take place in the future (for example, a highly probable future issue of debt).

The Telefónica Group's financial expenses are exposed to changes in interest rates. In 2022 the Euro, Brazilian Real, British Pound, American Dollar and Chilean peso were the short-term rates that accounted for most of the exposure. In nominal terms, at December 31, 2022, 88.3% of Telefónica's net financial debt was pegged to fixed interest rates for a period greater than one year, compared to 95.4% in 2021. Of the remaining 11.7% (net debt at floating rates or at fixed rates maturing within one year), no debt had interest rates bounded in a period over one year, the same as on December 31, 2021.

In addition, early retirement and Individual Suspension Plan liabilities (see Note 24) were discounted to present value over the year, based on the curve for instruments with very high credit quality. The increase in interest rates during the year has led to a decrease in the market value of these liabilities. However, this decrease was nearly completely offset by the decrease in the market value of the hedges on these positions.

Net financial expenses amounted to 1,313 million euros in 2022, down 51 million euros compared to 2021, mainly due to extraordinary income related to the payment by the Spanish administration to the Group of delayed interest in connection with tax litigation in Spain, which more than offset the increase in the expenses due to the increase in interest rates and a higher level of debt denominated in Brazilian reais.

To illustrate the sensitivity of the Company's net financial expense to fluctuations in short-term interest rates, on one hand a 100 basis point increase in interest rates in all currencies in which Telefónica has financial positions at December 31, 2022, and a 100 basis point decrease in all currencies has been assumed, and on the other hand a constant position equal to the position at year-end has been considered.

To calculate the sensitivity of equity to fluctuations in interest rates, on one hand a 100 basis point increase in interest rates in all currencies and in all periods on the yield curve in which Telefónica has financial positions at December 31, 2022, and a 100 basis point decrease in all currencies and all periods was assumed, and on the other hand only positions with cash flow hedges were considered, which are basically the only positions in which changes in market value due to interest rate fluctuations are recognized in equity.

Millions of euros

Change in basis points (bp)	Impact on consolidated income statement	Impact on consolidated equity
+100bp	(34)	61
-100bp	34	(61)

Share price risk

The Telefónica Group is exposed to changes in the value of equity investments, of derivatives associated with such investments, of share-based payments plans, of treasury shares and of equity derivatives over treasury shares.

According to the share-based payments plans (see Note 27), the shares to be delivered to employees under such plan may be either Telefónica S.A. treasury shares, acquired by itself or any of its Group companies, or newly issued shares. The possibility of delivering shares to beneficiaries of the plans in the future, implies a risk since there could be an obligation to hand over a maximum number of shares at the end of each phase, whose acquisition (in the event of acquisition in the market) in the future could imply a higher cash outflow than required on the start date of each phase if the share price is above the corresponding price on the phase start date. In the event that new shares are issued for delivery to the beneficiaries of the plan, there would be a dilutive effect for ordinary shareholders of Telefónica as a result of the higher number of shares delivered under such plan outstanding.

In 2018, the General Shareholder's Meeting approved a Long-Term Incentive Plan allocated to Senior Executive Officers of the Telefónica Group consisting of the delivery of shares of Telefónica, S.A. This plan has a total duration of five years and is divided into three mutually exclusive cycles of three years each. Each of the cycles commenced, respectively, in January 2018, 2019 and 2020. The first (2018) and the second (2019) of the three cycles matured on December 31, 2020 and on December 31, 2021 with a result of a delivery of shares to its participants in 2021 and in 2022, respectively.

In 2021, the General Shareholder's Meeting approved a new Long-Term Incentive Plan allocated to Senior Executive Officers of the Telefónica Group consisting of the delivery of shares of Telefónica, S.A. This plan has a total duration of five years and is divided into three mutually exclusive cycles of three years each. In January 2021 and in January 2022 two cycles have commenced and the last one will start in January 2023 (see Note 27).

Finally, the 2022 Shareholder's Meeting approved a Global Employee Incentive Share Purchase Plan for shares of Telefónica, S.A. for the Employees of the Telefónica Group, which is expected to deliver shares to its participants in 2024 (see Note 27).

To reduce the risk associated with variations in share price under these plans, Telefónica could acquire instruments that hedge the risk profile of some of these plans.

In addition, the Group may use part of the treasury shares of Telefónica, S.A. held at December 31, 2022 to cover shares deliverable under the outstanding Plans. The net asset value of the treasury shares could increase or decrease depending on variations in Telefónica, S.A.'s share price.

Liquidity risk

The Telefónica Group seeks to match the schedule for its debt maturity payments to its capacity to generate cash flows to meet these maturities, while allowing for some flexibility. In practice, this has been translated into two key principles:

1. The Telefónica Group's average maturity of net financial debt is intended to stay above six years or be restored above that threshold in a reasonable period of time if it eventually falls below it. This principle is considered as a guideline when managing debt and access to credit markets, but not a rigid requirement. When calculating the average maturity for the net financial debt, a portion of the undrawn credit lines can be considered as offsetting the shorter debt maturities, and extension options on some financing facilities may be considered as exercised, for calculation purposes.
2. The Telefónica Group must be able to pay all commitments over the next 12 months without accessing new borrowing or tapping the capital markets (drawing upon firm credit lines arranged with banks), assuming budget projections are met.

At December 31, 2022, the average maturity of net financial debt (26,687 million euros) was 13.11 years (including undrawn committed credit facilities).

At December 31, 2022, financial liabilities (Note 18) and lease liabilities (Note 20) scheduled to mature in 2023 amounted to 4,020 and 2,020 million euros, respectively. These maturities are lower than the amount of funds available, calculated as the sum of: a) cash and cash equivalents and current financial assets; b) annual cash generation projected for 2022, and c) undrawn credit facilities arranged with banks whose original maturity is over one year (an aggregate of 11,434 million euros at December 31, 2022), providing flexibility to the Telefónica Group with regard to accessing capital or credit markets in the next two years. For a further description of the Telefónica Group's liquidity and capital resources in 2022, see Note 18 and Appendix V.

Country risk

The Telefónica Group managed or mitigated country risk by pursuing two lines of action (in addition to its normal business practices):

1. Partly matching assets to liabilities (those not guaranteed by the Parent company) in the Telefónica Group's Latin American companies such that any potential asset impairment would be accompanied by a reduction in liabilities; and
2. Repatriating funds generated in Latin America that are not required for the pursuit of new, profitable business development opportunities in the region.

Regarding the first point, at December 31, 2022, the Telefónica Group's Latin American companies had net financial debt not guaranteed by the Parent company of 2,462 million euros, which represents 9.2% of net financial debt of the Group. Nevertheless, in certain countries, such as Venezuela, there is a net cash balance (instead of a net liability balance).

Regarding the net repatriation of funds to Spain, 693 million euros from Latin America companies have been received in 2022, of which 652 million euros was in the form of dividends.

Credit risk

The Telefónica Group trades in derivatives with creditworthy counterparties. Therefore, Telefónica, S.A. generally trades with credit entities whose "senior debt" ratings are of at least "A-" or in case of Spanish entities in line with the credit rating of the Kingdom of Spain. In Spain, where most of the Group's derivatives portfolio is held, there are netting agreements with financial institutions, with debtor or creditor positions offset in case of bankruptcy, limiting the risk to the net position. In addition, the CDS (Credit Default Swap) of all the counterparties with which Telefónica, S.A. operates is monitored at all times in order to assess the maximum allowable CDS for operating at any given time. Transactions are generally only carried out with counterparties whose CDS is below the threshold.

Net CVA (CVA+DVA) or Credit Valuation Adjustment is the method used to measure credit risk for both counterparties and Telefónica in order to determine the fair value of the derivatives portfolio. This adjustment reflects the probability of default or the deterioration of the credit quality of both Telefónica and its counterparties. The simplified formula to calculate CVA is Expected Exposure times Probability of Default times Loss Given Default (LGD). In order to calculate these variables standard market practices are used.

At the same time, and in order to address the credit risk, Telefónica considers the use of CDS, novations, derivatives with break clauses and signing CSA's under certain conditions.

For other subsidiaries, particularly those in Latin America, assuming a stable sovereign rating provides a ceiling which is below "A", trades are with local financial entities whose rating by local standards is considered to be of high creditworthiness.

Meanwhile, with credit risk arising from cash and cash equivalents, the Telefónica Group places its cash surpluses in high quality money-market assets. These placements are regulated by a general framework, revised annually. Counterparties are chosen according to criteria of liquidity, solvency and diversification based on the conditions of the market and countries where the Group operates. The general framework sets: the maximum amounts to be invested by counterparty based on its rating (long-term debt rating) and the instruments in which the surpluses may be invested (money-market instruments). Additionally, for Treasury surpluses managed at Telefónica S.A, a criteria based on CDs has been added, similar to that used for the selection of counterparties to operate with derivatives, for the selection of counterparties for the placement of those surpluses.

The Telefónica Group considers customer credit risk management as a key element to achieve its business and customer base growth targets in a sustainable way. This management approach relies on the active evaluation of the risk-reward balance within the commercial operations and on the adequate separation between the risk ownership and risk management functions.

Formal delegation of authority procedures and management practices are implemented in the different Group companies, taking into account benchmark risk management techniques, adapted to the local characteristics of each market. Commercial debtors that may cause a relevant impact on the Telefónica Group consolidated financial statements and increased risk profile products - due to customer target, term, channels or other commercial characteristics - are subject to specific management practices in order to mitigate the exposure to credit risk.

This customer credit risk management model is embedded in the day-to-day operational processes of the different companies, where the credit risk assessment guides both the product and services available for the different customers and the collection strategy.

The Telefónica Group's maximum exposure to credit risk is initially represented by the carrying amounts of the financial assets and the guarantees given by the Telefónica Group.

Several Telefónica Group companies provide operating guarantees granted by external counterparties, which are offered during their normal commercial activity, in bids for licenses, permits and concessions, and spectrum acquisitions. At December 31, 2022, these guarantees amounted to approximately 6,657 million euros (6,192 million euros at December 31, 2021).

Capital management

Telefónica's corporate finance department takes into consideration several factors for the evaluation of the Telefónica's capital structure, with the aim of maintaining the solvency and creating value to the shareholders.

The corporate finance department estimates the cost of capital on a continuous basis through the monitoring of the financial markets and the application of standard industry approaches for calculating weighted average cost of capital, or WACC, so that it can be applied in the valuation of businesses in course and in the evaluation of investment projects. In addition, Telefónica also uses as reference net financial debt (excluding items of a non-recurring or exceptional nature) that allows for a comfortable investment grade credit rating as assigned by credit rating agencies, aiming at protecting credit solvency and making it compatible with alternative uses of cash flow that could arise at any time.

These general principles are refined by other considerations and the application of specific variables, such as country risk in the broadest sense, or the volatility in cash flows generation that are considered, when evaluating the financial structure of the Telefónica Group and its different areas.

Interest rate benchmark reform and associated risks

During 2020 a fundamental reform of major interest rate benchmarks was launched globally, including the replacement of some interbank offered rates (IBORs) with alternative nearly risk-free rates (referred to as 'IBOR reform'). The Group has exposures to IBORs on its financial instruments that will be replaced or reformed as part of these market-wide initiatives, thus the Group anticipates that IBOR reform will impact its Risk Management Areas.

During 2022, the transition has been made to the new reference indices affected as of December 31, 2022, except for the USD Libor, whose transition will be made in June 2023. In the 2022 financial year, thanks to the decisions agreed in 2021 to manage the changes in the GBP Libor and CHF Libor, there have been no impacts from those changes.

Regarding to the Euribor, and according to the European Union Benchmarks Regulation, the Group expects that it will continue to exist as a benchmark rate for the foreseeable future.

The Group applies the amendments to IFRS 9 to those hedging relationships directly affected by IBOR reform, and therefore it assumes that the benchmark interest rate is not altered as a result of it. The detail of notional amounts of the hedging instruments in hedging relationships which are subject to the reform as of December 31, 2022 and December 31, 2021 is as follows:

Interest rate index/Tenor	Gross notional in original currency (in millions)	
	2022	2021
USD Libor 3M	32,947	35,140
USD Libor 1M	—	—
USD Libor 6M	140	140

The corporate finance department leads a working team to manage the transition in the Group. It closely monitors the market and the outputs from the industry, including announcements by the IBOR regulators on the discontinuation dates of current IBORs, which have recently undergone changes.

Another relevant aspect of the reform is the need to incorporate substitute indexes (known as fallbacks) of the reference rates used into the contracts. In order to incorporate these substitute indexes into the contracts, The Group has decided not to adhere to the ISDA Protocol and has negotiated bilateral contracts with each affected counterparty during 2022 and 2021.

The Group will continue to apply the amendments of IFRS 9 until the uncertainty arising from the benchmark interest rate reforms with respect to the timing and amount of the underlying cash-flows to which the Group is exposed ends.

In relation to the benchmark interest rate reform, IFRS regulations have incorporated information requirements on the exposure of entities to benchmark interest rates in the process of transition at the close of financial year 2022.

At December 31, 2022 the book value of assets referenced to USD Libor rates amounts to 516 million euros (333 million euros at December 31, 2021) and the book value of financial liabilities including lease liabilities referenced to USD Libor rates amounts to 920 million euros (661 million euros at December 31, 2021).

Derivatives policy

At December 31, 2022, the nominal value of outstanding derivatives with external counterparties amounted to 83,706 million euros equivalent, a 1% decrease from December 31, 2021 (84,794 million euros equivalent). This figure is inflated by the use in some cases of several levels of derivatives applied to the nominal value of a single underlying liability. For example, a foreign currency loan can be hedged into floating rate, and then each interest rate period can be fixed using a fixed rate hedge, or FRA (forward rate agreement) The high volume is also due to the fact that when a derivative transaction is canceled, the company may either cancel the derivative or take the opposite position, which cancels out the variability thereof. The second option is usually chosen in order to cut costs. Even using such techniques to reduce the position, it is still necessary to take extreme care in the use of derivatives to avoid potential problems arising through error or a failure to understand the real position and its associated risks.

The main principles in the management of derivatives are detailed below:

1) Derivatives based on a clearly identified hedged items.

Telefónica's derivatives policy emphasizes the following points:

- Acceptable underlyings include assets and liabilities, profits, revenues and cash flows in either a company's functional currency or another currency. These flows can be contractual (debt and interest payments, settlement of foreign currency payables, etc.), reasonably certain or foreseeable (PP&E purchases, future debt issues, commercial paper programs, etc.). The acceptability of an underlying asset in the above cases

does not depend on whether it complies with accounting rules requirements for hedge accounting, as is required in the case of certain intra-group transactions, for instance. Parent company investments in subsidiaries with functional currencies other than the euro also qualify as acceptable underlying assets.

- Economic hedges are hedges that have a designated underlying asset and that, under certain circumstances, may offset the changes in the value of the underlying asset. These economic hedges may not always meet the requirements to be treated as hedges for accounting purposes. The decision to arrange these hedges if they do not meet certain requirements will depend on the marginal impact on the income statement and, therefore, on how far this may compromise the goal of having a stable income statement. In any case, the changes are recognized in the income statement.

2) Matching of the hedged item to one side of the derivative.

This matching basically applies to foreign currency debt and derivatives hedging foreign currency payments by Telefónica Group subsidiaries. The aim is to eliminate the risk arising from changes in foreign currency interest rates. Nonetheless, even when the aim is to achieve perfect hedging for all cash flows, the lack of liquidity in certain markets, especially in Latin American currencies, has meant that historically there have been mismatches between the terms of the hedges and those of the debts they are meant to hedge. The Telefónica Group intends to reduce these mismatches, provided that doing so does not involve disproportionate costs. In this regard, if adjustment does prove too costly, the financial timing of the underlying asset in foreign currency will be modified in order to minimize interest rate risk in foreign currency.

In certain cases, the timing of the underlying as defined for derivative purposes may not be exactly the same as the timing of the contractual underlying.

3) Matching the company contracting the derivative and the company that owns the hedged item.

Generally, the aim is to ensure that the hedging derivative and the hedged asset or liability belong to the same company. Sometimes, however, the holding companies (Telefónica, S.A. and Telefónica Latinoamérica Holding, S.L.) have arranged hedges on behalf of a subsidiary that owns the underlying asset. The main reasons for separating the hedge and the underlying asset were the chance of differences in the legal validity of local and international hedges (as a result of unforeseen legal changes) and the different credit ratings of the counterparties (of the Telefónica Group companies as well as those of the banks).

4) Ability to measure the derivative's fair value using the valuation systems available to the Telefónica Group.

Telefónica uses several tools to evaluate and manage the risk involved in derivatives and debt. Among these tools are the Calypso system, extensively used in various financial institutions, and the specialized libraries in the MBRM financial calculation, both of which are widespread throughout the market and have shown proven reliability. In order to perform these calculations, customary market techniques are used when configuring the calculation methods, and information from money market curves is used on a daily basis as market inputs (swaps, deposits, FRA, etc.) for interest rates, official fixings for exchange rates and the interest rates and volatility matrices for interest and exchange rates that are listed in the multi-contributor systems, Reuters and Bloomberg. For those yield curves that are less liquid or whose prices published in Reuters and Bloomberg are considered not to adequately reflect the market situation, these curves will be requested from relevant banks in these markets.

5) Sale of options only when there is an underlying exposure.

Telefónica considers the sale of options when: i) there is an underlying exposure (on the consolidated statement of financial position or associated with a highly probable cash outflow) that would offset the potential loss for the year if the counterparty exercised the option. This exposure does not have to be treated as a purchased option, but rather it can be another type of hedged item (in these cases, hedge accounting does not apply since this hedging instrument does not meet the criteria required by accounting standards to treat the sale of options as hedging instruments), or ii) the option is part of a structure in which another derivative offsets any loss. The sale of options is also permitted in option structures where, at the moment they are taken out, the net premium is either positive or zero.

For instance, it would be possible to sell short-term options on interest rate swaps that entitle the counterparty to receive a certain fixed interest rate, below the level prevailing at the time the option was sold. This would mean that if rates fell and the counterparty exercised its option, the Group would swap part of its debt from floating rate to a lower fixed rate, having received a premium.

6) Hedge accounting.

The main risks that may qualify for hedge accounting are as follows:

- Variations in market interest rates (either money-market rates, credit spreads or both) that affect the value of the underlying asset or the measurement of the cash flows.
- Variations in exchange rates that change the value of the underlying asset in the company's functional currency and affect the measurement of the cash flow in the functional currency.
- Variations in the valuation of any financial asset, particularly shares of companies included in the portfolio of "Equity instruments".
- Variations in the price of commodities related to contracts that the Group has with third parties.

Regarding the underlying:

- Hedges can cover all or part of the value of the underlying.
- The risk to be hedged can be for the whole period of the transaction or for only part of the period.
- The underlying may be a highly probable future transaction, or a contractual underlying (loan, foreign currency payment, investment, financial asset, etc.) or a combination of both that defines an underlying with a longer term.

The main coverage instruments used are:

- Forwards / NDF: they are used mainly for exchange rate hedges related to commercial positions in foreign currency. They can also be used to hedge financing in foreign currency and net investment hedge in foreign currency.
- Exchange Rate Options: in some cases, this type of instruments can be used linked to future CapEx and OpEx operations and investments and divestments in foreign currency.
- Spots: for purchases and sales of currencies that are made same day value or two days' value. Generally used for operational needs or for divestments of operations in foreign currency.
- Currency swaps: this type of transaction is generally executed to hedge bonds issuance or loans issued in foreign currency or net investment hedge.
- Interest Swaps / Interest Rate Options: these instruments are used to manage the interest rate of the debt portfolio. Their use of them is ruled by the Financial Expenses Budget with the objective of its fulfillment. Both the volume to be contracted and the maturity of these products are determined by the underlying assets to be hedged.

It is possible that in several markets the maturity, as well as the low liquidity, does not allow to contract a "perfect" hedge, but this circumstance will have to be analyzed case by case.

- CDS: in order to manage the counterparty credit risk or CVA / DVA, CDS operations can be arranged to mitigate this risk.
- Derivatives of Commodities associated to:
 - Price risk hedge (mainly Electricity) associated with the Group's own contracts.
 - Supporting the business lines that may need it and always hedging the commercial risks of the signed contracts. They would be settled by differences, this is, in a non-deliverable format.
- Equity Derivatives: these are derivatives that address strategic decisions or hedging needs, either to hedge future investments or hedge existing risks. They protect Telefónica from the potential appreciation or depreciation in the price of the shares they hold as underlying.

Between the hedged item and the hedging instrument there is an economic relationship, this is, in general terms they move in opposite directions due to the same risk or risk covered. In other words, there must be an expectation that the value of the hedging instrument and the value of the hedged item will change systematically in opposite directions in response to the movements of one of the following elements:

- the same underlying item; or
- Underlying items that are economically related in such sense that they respond similarly to the risk that is being hedged.

Depending on the complexity of the hedge relationship and the way in which the hedge has been structured, a quantitative or qualitative analysis will have to be performed to demonstrate that there is an economic relationship between the hedged item and the hedging instrument.

This may on occasion mean that the hedging instruments have longer terms than the related contractual underlying. This happens when the Telefónica Group enters into long-term swaps, caps or collars to protect the Group against interest rate increases that may raise the financial expense of its promissory notes, commercial paper and some floating rate loans which mature earlier than their hedges. These floating rate financing programs are highly likely to be renewed and Telefónica commits to this by defining the underlying asset in a more general way as a floating rate financing program whose term coincides with the maturity of the hedge. In those cases in which the underlying assets representing the risk hedged are canceled or refinanced early, and if there is an open risk with similar characteristics as the underlying asset that was canceled or refinanced early, either because there is new financing or because there is an underlying asset with similar characteristics and risk profile, the hedge may remain in force with the derivatives assigned thereto and the risk will be subject to the hedge arranged in the aforementioned refinancing. When either of these situations occurs, the effectiveness of the hedge will be reviewed taking into account the new situation.

There can be three types of hedges:

- Fair value hedges.
- Cash flow hedges. Such hedges can be set at any value of the risk to be hedged (interest rates, exchange rates, etc.) or for a defined range (interest rates between 2% and 4%, above 4%, etc.). In this last case, the hedging instrument used is options.
- Hedges of net investment in consolidated foreign subsidiaries. Generally, such hedges are arranged by Telefónica S.A. and other Telefónica holding companies. Wherever possible, these hedges are implemented through real debt in foreign currency. Often, however, this is not always possible as many Latin American currencies are non-convertible, making it impossible for non-resident companies to issue local currency debt. It may also be that, due to the debt market deepness, the debt in the currency concerned is not enough to accommodate the required hedge, or that an acquisition is made in cash with no need for market financing. In these circumstances derivatives either forwards or cross-currency swaps are mainly used to hedge the net investment.

When using options, forwards or cross-currency swaps as hedging instruments, the exclusion of the time value of the option, the element at maturity of the forward and the currency spread of the cross-currency swap of the hedging relationship are evaluated on a case by case basis, in order to be treated as hedge costs.

Hedges can comprise a combination of different derivatives.

Management of accounting hedges is not static, and the hedging relationship may change before maturity. The interruption of the hedge accounting is possible within the framework of the management of financial risks and described in the internal document of "financial risks management and hedging strategy under IFRS 9". To gauge the efficiency of transactions defined as accounting hedges, the Group analyzes the extent to which the changes in the fair value or in the cash flows attributable to the hedged item would offset the changes in fair value or cash flows attributable to the hedged risk using a linear regression model prospectively. To evaluate the effectiveness of hedges, under IFRS 9, there is no numerical range under which it is accepted that a hedge is effective and hence the hedge accounting standards are applicable. Therefore, Telefónica considers that if there is an economic relationship, not dominated by changes in credit risk and if the appropriate hedging rationale has been designated, the requirements for effectiveness are met. However, at the moment when ineffectiveness arises, Telefónica will evaluate whether there is still an economic relationship or whether the designated hedging rationale is appropriate.

The possible sources of ineffectiveness that Telefónica can have when designing a hedging relationship and that will be considered when establishing the hedging rationale are:

- The hedging instrument and the hedged item have different maturity dates, initial dates, contract dates, repricing dates, etc.
- The hedging instrument starts with initial value and a financing effect is produced.
- When the underlying items have different sensitivity and are not homogeneous, for example EURIBOR 3M versus EURIBOR 6M.

The main guiding principles for risk management are laid down by Telefónica's Finance Department and implemented by the company financial officers (who are responsible for balancing the interests of each company and those of the Telefónica Group). The Corporate Finance Department may allow exceptions to this policy where these can be justified, normally when the market is too thin for the volume of transactions required or on clearly limited and small risks. New companies joining the Telefónica Group as a result of mergers or acquisitions may also need time to adapt.

7) Cancellation of derivatives.

When a derivative transaction is canceled, the company may:

- Cancel the derivative and pay its market value.
- Take the opposite position which cancels out the variability thereof, if cancellation costs are high or if it is recommended for operating or business reasons.

Breakdown of financial results

The breakdown of the financial results recognized in 2022, 2021 and 2020 is as follows:

Millions of euros	2022	2021	2020
Interest income	384	191	185
Dividends received	25	14	12
Other financial income	894	174	159
Subtotal	1,303	379	356
Changes in fair value of asset derivatives at fair value through profit or loss	377	132	255
Changes in fair value of liability derivatives at fair value through profit or loss	(861)	(24)	(507)
Changes in the fair value of debt instruments and other assets at fair value to profit or loss	8	—	(3)
Transfer from equity of results of cash flow hedges - future cash flows that are no longer expected to happen	(2)	—	—
(Loss)/Gain on fair value hedges	(1,818)	(517)	563
Gain/(loss) on adjustment to items hedged by fair value hedges	1,763	527	(525)
Subtotal	(533)	118	(217)
Interest expenses	(1,548)	(1,290)	(1,320)
Financial expenses on lease liabilities (see Note 20)	(393)	(274)	(193)
Ineffective portion of cash flow hedges	(15)	(41)	45
Accretion of provisions and other liabilities	276	(169)	(280)
Other financial expenses	(317)	(137)	(131)
Subtotal	(1,997)	(1,911)	(1,879)
Net finance costs excluding foreign exchange differences and hyperinflation adjustments	(1,227)	(1,414)	(1,740)

"Other financial income" in 2022 includes 526 million euros corresponding to delayed interest after the Agreement for the Execution of the Judgment of the Audiencia Nacional issued on October 24, 2022 (see Note 25, Inspections of the tax group in Spain).

"Other financial income" in 2022 included 139 million euros corresponding to the default interest as a result of the final decisions in favor of Telefónica Brazil about the right to deduct the ICMS from the calculation basis of PIS/COFINS (90 million euros and 85 million euros in 2021 and 2020, respectively, see Note 25).

"(Loss)/Gain on fair value hedges" includes mainly the impact on income of fair value hedges contracted by Telefónica, S.A., which are similarly reflected under "Gain/(loss) on adjustment to items hedged by fair value hedges" and therefore, have no significant net impact on the consolidated income statement. The increase in both items with respect to previous years is a consequence of the increase in interest rates.

The impact of hyperinflation on the net monetary position of the Group's subsidiaries in Argentina amounted to 39 million euros in 2022 (25 million euros in 2021 and 43 million euros in 2020) and is recorded under Exchange differences in the consolidated income statement.

Evolution of derivative instruments

The movement of the net position of derivatives during the years ended December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	Movement in 2022	Movement in 2021
Opening balance of assets/(liabilities)	1,573	13
Financing payments	715	34
Financing proceeds	(89)	89
Interest (proceeds)/payments	283	(91)
Other (proceeds)/payments	(17)	(31)
Fair value adjustments through other comprehensive income	1,031	1,733
Movements with counterparty in the income statement	(2,649)	(538)
Translation differences	169	393
Other movements	(4)	(29)
Closing balance of assets/(liabilities)	1,012	1,573

The variation in 2022 represents a decrease of 561 million euros of asset (increase of 1,560 million euros of liability in 2021) mainly due to the increase in dollar and euro interest rates and the evolution of the EUR/USD exchange rate. These variations are mostly by a similar impact and in the opposite direction in the hedge accounting of the different issuances and loans in dollar and euro currency of the Telefónica Group.

As of December 31, 2022 the derivatives portfolio amount a net positive value of 1,012 million euros (a net positive value of 1,573 as of December 31, 2021). This amount includes a net positive value of 638 million euros due to hedges (cross currency swaps) to transfer financial debt issued in foreign currency to local currency (a positive value of 188 million euros at December 31, 2021).

The calculation of the fair values of the Telefónica Group's debt instruments required an estimate, for each currency and counterparty, of a credit spread curve using the prices of the Group's bonds and credit derivatives.

The derivatives portfolio was measured through the techniques and models normally used in the market, based on money market curves and volatility prices available in the markets. Additionally, the credit valuation adjustment or net CVA per counterparty (CVA+DVA) is calculated on that measurement as the method used to measure the credit risks of the counterparties and also Telefónica for the purpose of adjusting the fair value valuation of the derivatives. This adjustment reflects the possibility of bankruptcy or credit rating impairment of the counterparty and Telefónica.

Derivatives arranged by the Group at December 31, 2022 are detailed in Appendix IV.

The breakdown of Telefónica's hedges and other derivative instruments at December 31, 2022 and December 31, 2021, their fair value at year-end and the expected maturity schedule is as set forth in the table below:

December 31, 2022

Millions of euros	Notional amount - Maturities ^(*)					Book value of the derivative and no-derivative instruments ^(**)				
	2023	2024	2025	Later	Total	Non-current asset	Current asset	Non-current liabilities	Current liabilities	Total
Derivative instruments of accounting hedges	(2,034)	116	(77)	7,237	5,242	(2,404)	(466)	1,317	78	(1,475)
Interest rate risk	(795)	2	(123)	(5,590)	(6,506)	(211)	(187)	446	9	57
Cash flow hedges	3	—	—	1,114	1,117	(26)	(4)	8	9	(13)
Fair value hedges	(798)	2	(123)	(6,704)	(7,623)	(185)	(183)	438	—	70
Exchange rate risk	(1,340)	34	—	9,284	7,978	(1,742)	(213)	711	68	(1,176)
Cash flow hedges	744	34	—	8,824	9,602	(1,742)	(57)	704	30	(1,065)
Fair value hedges	837	—	—	460	1,297	—	(87)	7	28	(52)
Net investments hedges	(2,921)	—	—	—	(2,921)	—	(69)	—	10	(59)
Interest rate and exchange rate risk	101	80	46	3,543	3,770	(451)	(66)	160	1	(356)
Cash flow hedges	101	80	46	3,234	3,461	(445)	(66)	74	1	(436)
Fair value hedges	—	—	—	309	309	(6)	—	86	—	80
Undesignated derivatives	(1,964)	(479)	(525)	(2,363)	(5,331)	(264)	(246)	706	267	463
Other derivatives of interest rate	(1,539)	(688)	(525)	(2,363)	(5,115)	(264)	(59)	631	16	324
Other derivatives of exchange rate	(1,132)	—	—	—	(1,132)	—	(179)	—	145	(34)
Other derivatives	707	209	—	—	916	—	(8)	75	106	173
Total derivative instruments	(3,998)	(363)	(602)	4,874	(89)	(2,668)	(712)	2,023	345	(1,012)
No derivatives instruments of accounting hedges ^(***)	—	141	—	—	141	—	—	141	—	141
Exchange rate risk	—	141	—	—	141	—	—	141	—	141
Fair value hedges	—	—	—	—	—	—	—	—	—	—
Net investments hedges	—	141	—	—	141	—	—	141	—	141

^(*) For interest rate hedges, the positive amount is in terms of "fixed payment." For foreign currency hedges, a positive amount means payment in functional vs. foreign currency.

^(**) Positive amounts indicate payables.

^(***) Of the hedging instruments that are not derivatives, 141 million euros correspond to "Loans and other debts" (see Note 18).

December 31, 2021

Millions of euros	Notional amount - Maturities ^(*)					Book value of the derivative and no-derivative instruments ^(**)				
	2022	2023	2024	Later	Total	Non-current asset	Current asset	Non-current liabilities	Current liabilities	Total
Derivative instruments of accounting hedges	(5,020)	(904)	98	8,805	2,979	(2,301)	(908)	1,438	232	(1,539)
Interest rate risk	63	(801)	(1)	(2,860)	(3,599)	(914)	(480)	22	4	(1,368)
Cash flow hedges	64	—	—	1,060	1,124	(24)	(11)	11	4	(20)
Fair value hedges	(1)	(801)	(1)	(3,920)	(4,723)	(890)	(469)	11	—	(1,348)
Exchange rate risk	(5,021)	26	19	8,824	3,848	(1,245)	(131)	1,124	228	(24)
Cash flow hedges	318	32	19	8,824	9,193	(1,245)	(102)	1,124	95	(128)
Fair value hedges	209	(6)	—	—	203	—	(28)	—	18	(10)
Net investments hedges	(5,548)	—	—	—	(5,548)	—	(1)	—	115	114
Interest rate and exchange rate risk	(62)	(129)	80	2,841	2,730	(142)	(297)	292	—	(147)
Cash flow hedges	189	118	80	2,841	3,228	(97)	(104)	292	—	91
Fair value hedges	(251)	(247)	—	—	(498)	(45)	(193)	—	—	(238)
Undesignated derivatives	(1,254)	(1,187)	(303)	(1,238)	(3,982)	(471)	(87)	397	127	(34)
Other derivatives of interest rate	(963)	(1,283)	(303)	(1,238)	(3,787)	(244)	(55)	170	8	(121)
Other derivatives of exchange rate	(740)	(370)	—	—	(1,110)	(214)	(23)	142	101	6
Other derivatives	449	466	—	—	915	(13)	(9)	85	18	81
Total derivative instruments	(6,274)	(2,091)	(205)	7,567	(1,003)	(2,772)	(995)	1,835	359	(1,573)
No derivatives instruments of accounting hedges ^(***)	—	—	133	—	133	—	—	132	—	132
Exchange rate risk	—	—	133	—	133	—	—	132	—	132
Fair value hedges	—	—	—	—	—	—	—	—	—	—
Net investments hedges	—	—	133	—	133	—	—	132	—	132

^(*) For interest rate hedges, the positive amount is in terms of "fixed payment." For foreign currency hedges, a positive amount means payment in functional vs. foreign currency.

^(**) Positive amounts indicate payables.

^(***) Of the hedging instruments that are not derivatives, 132 million euros correspond to "Loans and other debts" (see Note 18).

The detail of hedged items by fair value hedges at December 31, 2022 and December 31, 2021 are as follows:

December 31, 2022

Millions of euros	Hedged items carrying amount				Accumulated amount in the hedged item adjusted by fair value hedge ^(*)				
	Interest rate risk	Exchange rate risk	Interest rate and exchange rate risk	Total	Interest rate risk	Exchange rate risk	Interest rate and exchange rate risk	Total	Of which: accumulated amount of any hedge item that have ceased to be adjusted for gains and losses
Assets	15	250	—	265	8	22	—	30	—
Financial assets and other non-current assets	8	96	—	104	8	1	—	9	—
Receivables and other current assets	—	152	—	152	—	21	—	21	—
Other current financial assets	7	—	—	7	—	—	—	—	—
Other heading of assets	—	2	—	2	—	—	—	—	—
Liabilities	8,125	1,295	1,619	11,039	(88)	(38)	67	(59)	21
Non-current financial liabilities	7,735	468	1,454	9,657	(89)	—	15	(74)	36
Payables and other non-current liabilities	—	60	—	60	—	(2)	—	(2)	—
Current financial liabilities	387	11	165	563	—	—	52	52	1
Payables and other current liabilities	3	756	—	759	1	(36)	—	(35)	(16)

^(*) Accumulated amount adjusted by fair value hedge is shown with negative sign when it reduces the value (lowest liability or lowest asset) and viceversa.

December 31, 2021

Millions of euros	Hedged items carrying amount				Accumulated amount in the hedged item adjusted by fair value hedge ^(*)					Of which: accumulated amount of any hedge item that have ceased to be adjusted for gains and losses
	Interest rate risk	Exchange rate risk	Interest rate and exchange rate risk	Total	Interest rate risk	Exchange rate risk	Interest rate and exchange rate risk	Total		
Assets	—	226	—	226	—	4	—	4	—	
Financial assets and other non-current assets	—	101	—	101	—	1	—	1	—	
Receivables and other current assets	—	106	—	106	—	3	—	3	—	
Other heading of assets	—	19	—	19	—	—	—	—	—	
Liabilities	6,101	1,437	2,460	9,998	1,322	(23)	390	1,689	63	
Non-current financial liabilities	5,987	558	1,919	8,464	1,309	—	195	1,504	52	
Non-current lease liabilities	31	—	—	31	(2)	—	—	(2)	—	
Payables and other non-current liabilities	—	55	—	55	—	(3)	—	(3)	—	
Current financial liabilities	83	—	541	624	15	—	195	210	16	
Payables and other current liabilities	—	824	—	824	—	(20)	—	(20)	(5)	

^(*) Accumulated amount adjusted by fair value hedge is shown with negative sign when it reduces the value (lowest liability or lowest asset) and vice versa.

The evolutions of hedges in equity at December 31, 2022 and December 31, 2021 are as follows:

Millions of euros	Derivative instruments				No derivative instruments		Total Gross amount	Tax effect	Total hedges in equity
	Gains (losses) of cash flow hedges				Derivatives - Net investment hedges	No Derivatives - Net investment hedges			
	Interest rate risk	Exchange rate risk	Exchange rate and interest rate risks						
Balance at 12/31/2021	(70)	247	(270)	705	(5)	607	(170)	437	
Changes in the fair value registered in equity	4	1,235	612	(743)	(4)	1,104	(284)	820	
Transfer to the initial value of hedged item	1	(2)	(7)	—	—	(8)	2	(6)	
Transfer to the income statement of the period - the hedged future cash flows are no longer expected to happen	—	1	—	—	—	1	—	1	
Transfer to the income statement of the period - the hedged item has affected profit or loss	26	(620)	(127)	10	—	(711)	181	(530)	
Total translation differences	2	—	2	(6)	—	(2)	5	3	
Other movements	—	—	—	4	—	4	(4)	—	
Balance at 12/31/2022	(37)	861	210	(30)	(9)	995	(270)	725	
Amounts remaining in equity for continuing hedges	10	826	290	(30)	(9)	1,087			
Amounts remaining in equity from any hedging relationship for which hedge accounting is no longer applied	(47)	35	(80)	—	—	(92)			
Balance at 12/31/2022	(37)	861	210	(30)	(9)	995			

The total amount of "Transfer to the income statements of the period - the hedged item has affected profit or loss" has impacted in financial results, reported under "Interest expenses" amounted to +181 million euros (+72 million euros in 2021), see detail of "Net finance costs excluding foreign exchange differences and hyperinflation adjustments" in this Note, and in exchange differences amounted to +536 million euros (+873 million euros in 2021).

Millions of euros	Derivative instruments			No derivative instruments		Total Gross amount	Tax effect	Total hedges in equity
	Gains (losses) of cash flow hedges			Derivatives - Net investment hedges	Derivatives - Net investment hedges			
	Interest rate risk	Exchange rate risk	Exchange rate and interest rate risks	Derivatives - Net investment hedges	Derivatives - Net investment hedges			
Balance at 12/31/2020	(154)	(443)	(523)	2,061	—	941	(295)	646
Changes in the fair value registered in equity	34	1,473	445	(353)	(5)	1,594	(396)	1,198
Transfer to the initial value of hedged item	—	(1)	(1)	—	—	(2)	1	(1)
Transfer to the income statement of the period - the hedged future cash flows are no longer expected to happen	—	—	—	—	—	—	—	—
Transfer to the income statement of the period - the hedged item has affected profit or loss	48	(782)	(188)	(962)	—	(1,884)	478	(1,406)
Total translation differences	2	—	(3)	—	—	(1)	1	—
Other movements	—	—	—	(41)	—	(41)	41	—
Balance at 12/31/2021	(70)	247	(270)	705	(5)	607	(170)	437
Amounts remaining in equity for continuing hedges	(7)	211	(184)	705	(5)	720		
Amounts remaining in equity from any hedging relationship for which hedge accounting is no longer applied	(63)	36	(86)	—	—	(113)		
Balance at 12/31/2021	(70)	247	(270)	705	(5)	607		

The evolution of cost of hedging in equity in 2022 and 2021 are as follows:

Millions of euros	Exchange rate risk				
	Forward element / CBS		Total gross amount	Tax effect	Total cost of hedging in equity
	A time - period related hedge item				
Balance at 12/31/2020		(75)	(75)	19	(56)
Changes in the fair value registered in equity		128	128	(32)	96
Transfer to the income statement of the period - the hedged item has affected profit or loss		(10)	(10)	2	(8)
Balance at 12/31/2021		43	43	(11)	32
Changes in the fair value registered in equity		(59)	(59)	15	(44)
Transfer to the income statement of the period - the hedged item has affected profit or loss		(9)	(9)	2	(7)
Balance at 12/31/2022		(25)	(25)	6	(19)

The details of the ineffective portion of accounting hedges with impact on the income statement in 2022 and 2021 are as follows:

2022

Millions of euros	Changes in fair value of the hedging instrument	Changes in the fair value of hedges item for the hedged risk	Ineffective portion hedged registered in the income statement
Interest rate risk	(1,257)	(1,238)	(19)
Cash flow hedges	35	35	—
Fair value hedges	(1,292)	(1,273)	(19)
Exchange rate risk	(8)	(8)	—
Cash flow hedges	1,108	1,108	—
Net investment hedges	(1,116)	(1,116)	—
Interest rate and exchange rate risk	462	475	(13)
Cash flow hedges	462	475	(13)
Total	(803)	(771)	(32)

2021

Millions of euros	Changes in fair value of the hedging instrument	Changes in the fair value of hedges item for the hedged risk	Ineffective portion hedged registered in the income statement
Interest rate risk	(142)	(143)	1
Cash flow hedges	8	7	1
Fair value hedges	(150)	(150)	—
Exchange rate risk	960	994	(34)
Cash flow hedges	1,510	1,544	(34)
Net investment hedges	(550)	(550)	—
Interest rate and exchange rate risk	412	418	(6)
Cash flow hedges	412	418	(6)
Total	1,230	1,269	(39)

Note 20. Lease liabilities

The evolution of lease liabilities in 2022 and 2021 were as follows:

Millions of euros	Lease liabilities
Balance at 12/31/2021	8,070
Additions	2,487
Principal and interests payments	(2,361)
Principal payments (Note 28)	(1,996)
Interests payments (Note 28)	(365)
Disposals	(59)
Business combinations	124
Accrued interests	393
Translation differences and hyperinflation adjustments	246
Transfers and others	(223)
Balance at 12/31/2022	8,677

Millions of euros	Lease liabilities
Balance at 12/31/2020	5,294
Additions	2,030
Sale of the towers division of Telxius	2,650
Principal and interests payments	(1,859)
Principal payments (Note 28)	(1,782)
Interests payments (Note 28)	(246)
Minus: Payments of companies held for sale and sold companies during 2021	169
Disposals	(288)
Business combinations	14
Accrued interests ⁽¹⁾	259
Translation differences and hyperinflation adjustments	29
Transfers and others	(59)
Balance at 12/31/2021	8,070

⁽¹⁾ Total accrued interests in 2021 amounted to 274 million euros, including the additions corresponding to companies held for sale and sold companies during the annual reporting period (see Note 19).

"Additions" includes fixed asset sale and leaseback transactions, which amounted to 125 million euros in 2022 (51 million euros in 2021). The gain recorded in 2022 and 2021 for sale and leaseback transactions amounted to 381 million euros and 263 million euros, respectively (see Note 26).

"Business combinations" in 2022 include 117 million euros of lease liabilities related to the acquisition of rights of use of Oi (see Note 29), as well as, 2 and 5 million euros for the incorporation of the Incremental group and the BE-terna group, respectively (see Note 2 and 5).

"Business combinations" in 2021 corresponded to the acquisition of Cancom (see Note 5) amounted to 14 million euros.

There are commitments for leases not started at December 31, 2022 amounting to 1,569 million euros, mainly related to the sites construction agreement between Telefónica Germany GmbH and Telxius Towers Germany GmbH (at December 31, 2021 1,307 million euros).

In 2021 Telxius sold its telecommunications towers division to American Tower Corporation (see Note 2). The Telefónica Group operators maintained the leases agreements of the towers signed with the companies sold subsidiaries of Telxius. Consequently, as of the closing date of the transactions, lease liabilities were recorded in the consolidated statement of financial position in the amount of 2,775 million euros. "Sale of the towers division of

Telxius” also includes the recognition of lease liabilities with third parties corresponding to the second phase of the sale agreement between Telefonica Germany and ATC in the amount of 125 million euros.

"Transfers and others" in 2022 includes the reclassification of lease liabilities on the shutdown site contracts of Pegaso PCS amounting to 264 million euros.

"Transfers and others" in 2021 included the reclassification of lease liabilities of Telefónica El Salvador amounted to 43 million euros to "Liabilities associated with non-current assets and disposal groups held for sale" of the statement of financial position (see Note 30).

The maturity schedule of lease liabilities at December 31, 2022 is as follows:

Millions of euros									
Maturity	Current			Non-Current			Subsequent years	Non-current total	Total
	2023	2024	2025	2026	2027				
Lease liabilities	2,107	1,700	1,413	1,064	851	2,173	7,201	9,308	

Note 21. Payables and other non-current liabilities

The composition of “Payables and other non-current liabilities” of the Telefónica Group at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Payables	1,914	1,733
Trade payables	463	236
Payables for spectrum acquisition	1,293	1,361
Other payables	158	136
Other non-current liabilities	1,632	1,356
Contractual liabilities (Note 23)	891	829
Deferred revenue	199	217
Current tax payables	542	310
Total	3,546	3,089

“Non-current debt for spectrum acquisition” as of December 31, 2022 and December 31, 2021, is detailed below:

Millions of euros	12/31/2022	12/31/2021
Telefónica Spain	74	79
Telefónica Colombia	85	—
Telefónica Brazil	243	292
Telefónica Germany	891	990
Total	1,293	1,361

The outstanding liabilities at December 31, 2022 from the acquisition of spectrum licenses by Telefónica Brazil in November 2021 (see Note 6) amounted to 1,844 million Brazilian real (331 million euros) including 1,192 million Brazilian reais (214 million euros) are classified as non-current. At December 31, 2021, outstanding liabilities amounted to 4,451 million Brazilian reais (704 million euros at exchange rate of 2021), including 1,704 million Brazilian reais (270 million euros at closing exchange rate of 2021) were classified as non-current.

In June 2019 Telefónica Germany acquired a total of 90 MHz spectrum at a cost of 1,425 million euros. The Company, like the other auction participants, reached an agreement to defer payments in interest-free annual installments until 2030, instead of an upfront one-time payment (see Appendix VI). In 2022 and 2021, payments amounting to 108 million euros have been made each year (see Note 28). The current value of the debt at December 31, 2022 amounted to 998 million euros (1,097 million euros at December 31, 2021), 891 million euros have a maturity of more than twelve months (990 million euros at December 31, 2021).

Payments for financed licenses for the years 2022 and 2021 amounted to 657 and 165 million euros, respectively (see Note 28).

“Deferred revenues” include grants amounting to 53 million euros at December 31, 2022 (55 million euros at December 31, 2021).

Note 22. Payables and other current liabilities

The composition of "Payables and other current liabilities" at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Payables	12,018	11,872
Trade payables	7,545	6,982
Payables to suppliers of property, plant and equipment	2,841	2,752
Payables for spectrum acquisition	248	569
Other payables	1,088	997
Dividends pending payment	203	228
Payables to associates and joint ventures (Note 10)	93	344
Other current liabilities	1,491	1,338
Contract liabilities (Note 23)	1,038	958
Deferred revenue	102	115
Advances received	350	265
Other liabilities to associates and joint ventures (Note 10)	1	—
Total	13,509	13,210

"Current debt for spectrum acquisition" as of December 31, 2022 and December 31, 2021, is detailed below:

Millions of euros	12/31/2022	12/31/2021
Telefónica Germany	107	107
Telefónica Colombia	17	5
Telefónica Brazil	117	434
Telefónica Spain	7	7
Others	—	16
Total	248	569

At December 31, 2022 and December 31, 2021, "Payables for spectrum acquisition", includes the debt maturing within twelve months of the spectrum licenses in Telefónica Brazil acquired in November 2021 and the spectrum licenses in Telefónica Germany acquired in June 2019 (see Note 21).

"Payables to associates and joint ventures" at December 31, 2021 included the obligation in relation to the O2 UK pension plans arising as a result of the constitution of VMED O2 UK Ltd amounted to 213 million pounds sterling (253 million euros at closing exchange rate of 2021, see Notes 10 and 29.c).

"Deferred revenue" includes grants amounting to 17 million euros at December 31, 2022 (12 million euros at December 31, 2021).

The composition of current "Other payables" at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Accrued employee benefits	608	516
Other non-financial non-trade payables	480	481
Total	1,088	997

Information on average payment period to suppliers. Third additional provision, “Information requirement” of Law 15/2010 of July 5, modified by Law 18/2022, of September 28.

In accordance with the aforementioned Law 15/2010, the following information corresponding to the Spanish companies of the Telefónica Group is disclosed:

	2022	2021
Number of days		
Weighted average maturity period	53	54
Ratio of payments	55	56
Ratio of outstanding invoices	42	42
Millions of euros		
Total payments	8,362	7,671
Outstanding invoices	1,251	1,264

On October 19, 2022, Law 18/2022, of September 28, on the creation and growth of companies, came into force, which modifies the third additional provision of Law 15/2010. The new standard establishes the obligation to publish in annual accounts, in addition to the information already required, the monetary volume and number of invoices paid in a period less than the maximum established in the late payment regulations, and the percentage they represent of the total number of invoices and on the total monetary payments to your suppliers. This information for the 2022 financial year is shown below:

	2022
Monetary volume of invoices paid in a period less than the maximum established in the regulations (millions of euros)	4,899
Percentage of total payments	59%
Number of invoices paid in a period less than the maximum established in the regulations	157,523
Percentage of the total number of invoices paid	54%

The Telefónica Group’s Spanish companies adapted their internal processes and payment schedules to the provisions of Law 15/2010 (amended by Law 31/2014) and Royal Decree-Law 4/2013, amending Law 3/2004, which establishes measures against late payment in commercial transactions. Engagement conditions with commercial suppliers in 2022 included payment periods of up to 60 days, according to the terms agreed between the parties.

For efficiency purposes and in line with general business practices, Telefónica Group companies in Spain have agreed payment schedules with suppliers, whereby most of the payments are made on set days of each month. Invoices falling due between two payment days are settled on the following payment date in the schedule.

Payments to Spanish suppliers in 2022 surpassing the established legal limit were the result of circumstances or incidents beyond the payment policies, mainly the delay in issuing invoices (legal obligation of the supplier), the closing of agreements with suppliers over the delivery of goods or rendering of services, or occasional processing issues.

The average payment period to suppliers of the Telefónica Group’s companies in Spain in 2022, calculated in accordance with the only additional provision of the Resolution of the Instituto de Contabilidad y Auditoria de Cuentas (Spanish Accounting and Audit Institute) of January 29, 2016, amounted to 53 days (54 days in 2021).

Note 23. Breakdown of contractual assets and liabilities, and capitalized costs

The movement of contractual assets and capitalized costs in 2022 and 2021 is as follows:

Millions of euros	Balance at 12/31/2021	Additions	Disposals	Transfers	Translation differences and hyperinflation adjustments	Balance at 12/31/2022
Long-term contractual assets (Note 12)	209	261	(12)	(100)	1	359
Contractual assets	210	261	(12)	(100)	1	360
Impairment losses	(1)	—	—	—	—	(1)
Short-term contractual assets (Note 14)	133	294	(337)	100	5	195
Contractual assets	141	295	(340)	100	6	202
Impairment losses	(8)	(1)	3	—	(1)	(7)
Total	342	555	(349)	—	6	554

Millions of euros	Balance at 12/31/2020	Additions	Disposals	Transfers	Translation differences and hyperinflation adjustments	Balance at 12/31/2021
Long-term contractual assets (Note 12)	145	113	—	(49)	—	209
Contractual assets	146	113	—	(49)	—	210
Impairment losses	(1)	—	—	—	—	(1)
Short-term contractual assets (Note 14)	104	180	(198)	48	(1)	133
Contractual assets	113	182	(201)	48	(1)	141
Impairment losses	(9)	(2)	3	—	—	(8)
Total	249	293	(198)	(1)	(1)	342

Once the amounts recognized as contract assets become receivables, which normally occurs when they are invoiced, they are transferred to the "Trade receivables" heading. In this regard, the balance of the contract assets account basically represents amounts not yet due.

The movement of the deferred expenses in 2021 and 2020 is as follows:

Millions of euros	Balance at 12/31/2021	Additions	Disposals	Transfers	Translation differences and hyperinflation adjustments	Other movements	Balance at 12/31/2022
Non-current capitalized costs (Note 12)	555	820	(2)	(547)	19	9	854
Of obtaining a contract	371	671	—	(447)	6	9	610
Of fulfilling a contract	184	149	(2)	(100)	13	—	244
Impairment losses	—	—	—	—	—	—	—
Current capitalized costs (Note 14)	668	630	(987)	547	20	7	885
Of obtaining a contract	537	509	(801)	448	10	7	710
Of fulfilling a contract	131	121	(186)	99	10	—	175
Impairment losses	—	—	—	—	—	—	—
Total	1,223	1,450	(989)	—	39	16	1,739

Millions of euros	Balance at 12/31/2020	Additions	Disposals	Transfers	Translation differences and hyperinflation adjustments	Other movements	Balance at 12/31/2021
Non-current capitalized costs (Note 12)	331	631	—	(401)	(6)	—	555
Of obtaining a contract	212	496	—	(334)	(3)	—	371
Of fulfilling a contract	119	135	—	(67)	(3)	—	184
Impairment losses	—	—	—	—	—	—	—
Current capitalized costs (Note 14)	580	489	(799)	400	(2)	—	668
Of obtaining a contract	469	388	(653)	333	—	—	537
Of fulfilling a contract	111	101	(146)	67	(2)	—	131
Impairment losses	—	—	—	—	—	—	—
Total	911	1,120	(799)	(1)	(8)	—	1,223

In 2020, the Group revisited the allocation to profit or loss period of incremental costs of obtaining a contract with indefinite duration, to match it with the pattern of transfer of goods or services under the contract to which those costs relate. Pursuant to this analysis such costs are recognized as an asset and expensed on a systematic basis, considering the renewals estimated on the basis of the customer churn rate, except in situations in which there are costs on contract renewal that are commensurate with the costs paid on the initial contract.

The movement of contractual liabilities of contracts with customers in 2022 and 2021 is as follows:

Millions of euros	Balance at 12/31/2021	Additions	Disposals (previous years)	Disposals (current year)	Transfers	Translation differences and hyperinflation adjustments	Other movements	Balance at 12/31/2022
Long-term contractual liabilities (Note 21)	829	300	(2)	—	(242)	6	—	891
Short-term contractual liabilities (Note 22)	958	5,546	(984)	(4,756)	236	16	22	1,038
Total	1,787	5,846	(986)	(4,756)	(6)	22	22	1,929

Millions of euros	Balance at 12/31/2020	Additions	Disposals (previous years)	Disposals (current year)	Transfers	Translation differences and hyperinflation adjustments	Other movements	Balance at 12/31/2021
Long-term contractual liabilities (Note 21)	762	270	(4)	(11)	(206)	18	—	829
Short-term contractual liabilities (Note 22)	976	5,182	(725)	(4,694)	204	2	13	958
Total	1,738	5,452	(729)	(4,705)	(2)	20	13	1,787

The maturity schedule of contractual liabilities at December 31, 2022 is as follows:

Millions of euros	2023	2024	2025	Subsequent years	Total
Contractual liabilities, activation fees	23	9	2	1	35
Contractual liabilities, sales of prepay cards	524	—	—	—	524
Contractual liabilities, services	308	75	30	64	477
Contractual liabilities, sales of handsets	26	5	—	—	31
Contractual liabilities, sales of other equipments	3	—	—	20	23
Contractual liabilities, irrevocable rights to use	70	69	62	421	622
Other contractual liabilities	84	17	16	100	217
Maturity of performance obligations	1,038	175	110	606	1,929

Note 24. Provisions

The amounts of provisions in 2022 and 2021 are as follows:

Millions of euros	12/31/2022			12/31/2021		
	Current	Non-current	Total	Current	Non-current	Total
Employee benefits	885	4,093	4,978	1,003	5,395	6,398
Termination plans	135	241	376	254	374	628
Post-employment defined benefit plans	9	329	338	8	400	408
Other benefits	741	3,523	4,264	741	4,621	5,362
Dismantling of assets	26	502	528	25	552	577
Other provisions	720	1,910	2,630	413	1,715	2,128
Total	1,631	6,505	8,136	1,441	7,662	9,103

a) Employee benefits

In 2022 the Group recorded a provision of 179 million euros (1,663 million euros in 2021). In 2022, 57 million euros corresponds to Telefónica Spain (1,382 million euros in 2021, mainly relating to the Individual Suspension Plan described in “Other benefits”). The distribution by segment of the restructuring costs, in terms of their impact on operating income, is as follows:

Millions of euros	2022	2021
Telefónica Spain	57	1,382
Telefónica Germany	16	22
Telefónica Hispam	98	174
Other companies	8	85
Total	179	1,663

Termination plans

The movement in provisions for termination plans in 2022 and 2021 is as follows:

Millions of euros	Total
Provisions for termination plans at 12/31/2020	785
Additions	249
Retirements/amount applied	(409)
Translation differences, hyperinflation adjustments and accretion	3
Provisions for termination plans at 12/31/2021	628
Additions	106
Retirements/amount applied	(311)
Transfers	(43)
Translation differences, hyperinflation adjustments and accretion	(4)
Provisions for termination plans at 12/31/2022	376

Telefónica Spain

The 2011-2013 labor force reduction plan in Telefónica de España, concluded with 6,830 participating employees and the provisions recorded at December 31, 2022 and 2021 amounted to 38 million euros and 145 million euros, respectively.

The companies bound by these commitments calculated provisions required at 2022 and 2021 year-ends using the biometric table PERM2020 published in the resolution of December 17, 2020 combined with the invalidity table published in the ministerial order of 1977 and a high quality credit market based interest rate.

The discount rate used for the termination plans of Telefónica Spain at December 31, 2022 was 3.43% with an average plan length of 0.74 years.

Post-employment defined benefit plans

The Group has a number of defined benefit plans in the countries where it operates. The following tables present the main data of these plans:

12/31/2022

Millions of euros	Germany	Brazil	Hispan	Others	Total
Obligation	208	622	64	19	913
Assets	(101)	(751)	—	(18)	(870)
Net provision before asset ceiling	107	(129)	64	1	43
Asset ceiling	—	266	—	—	266
Total	107	137	64	1	309
Net provision	117	138	75	8	338
Net assets	10	1	11	7	29

12/31/2021

Millions of euros	Germany	Brazil	Hispan	Others	Total
Obligation	322	549	67	22	960
Assets	(99)	(660)	—	(15)	(774)
Net provision before asset ceiling	223	(111)	67	7	186
Asset ceiling	—	199	—	—	199
Total	223	88	67	7	385
Net provision	231	103	67	7	408
Net assets	8	15	—	—	23

The movement in the present value of obligations in 2022 and 2021 is as follows:

Millions of euros	Germany	Brazil	Hispan	Other	Total
Present value of obligation at 12/31/2020	350	643	74	19	1,086
Translation differences	—	5	(4)	1	2
Current service cost	10	4	2	1	17
Interest cost	2	48	7	—	57
Actuarial losses and gains	(36)	(115)	(4)	1	(154)
Benefits paid	(4)	(36)	(4)	(1)	(45)
Plan curtailments	—	—	(22)	—	(22)
Other movements	—	—	18	1	19
Present value of obligation at 12/31/2021	322	549	67	22	960
Translation differences	—	74	(7)	1	68
Current service cost	11	3	4	1	19
Interest cost	3	54	6	—	63
Actuarial losses and gains	(123)	(10)	3	—	(130)
Benefits paid	(5)	(48)	(4)	(1)	(58)
Plan curtailments	—	—	(3)	—	(3)
Other movements	—	—	(2)	(4)	(6)
Present value of obligation at 12/31/2022	208	622	64	19	913

Movements in the fair value of plan assets in 2022 and 2021 are as follows:

Millions of euros	Germany	Brazil	Other	Total
Fair value of plan assets at 12/31/2020	95	693	13	801
Translation differences	—	6	1	7
Interest income	—	51	—	51
Actuarial losses and gains	3	(42)	—	(39)
Participants contributions	2	—	—	2
Benefits paid	(2)	(33)	—	(35)
Transfers	1	—	1	2
Other movements	—	(15)	—	(15)
Fair value of plan assets at 12/31/2021	99	660	15	774
Translation differences	—	89	1	90
Interest income	1	65	—	66
Actuarial losses and gains	(1)	(2)	—	(3)
Company contributions	2	—	—	2
Benefits paid	(3)	(42)	—	(45)
Transfers	3	—	2	5
Other movements	—	(19)	—	(19)
Fair value of plan assets at 12/31/2022	101	751	18	870

Telefónica Brazil pension plans

Telefónica Brazil sponsors the following post-employment benefit plans:

Plans	Management entity	Sponsor
Health plans		
Plano de Assistência Médica ao Aposentado y Programa de Coberturas Especiais (PAMA/PCE)	Fundação Sistel de Seguridade Social	Telefónica Brasil, jointly and severally with other companies resulting from the privatization of Telebrás (Telecomunicações Brasileiras, S.A.)
Assistencia médica – Lei 9.656/98	Telefónica Brasil	Telefónica Brasil, Terra Networks, TGLog and TIS
Pension plans		
PBS Assistidos (PBS-A)	Fundação Sistel de Seguridade Social	Telefónica Brasil, jointly and severally with other companies resulting from the privatization of Telebrás (Telecomunicações Brasileiras, S.A.)
CTB	Telefónica Brasil	Telefónica Brasil
Telefónica BD	Visão Prev	Telefónica Brasil
Planes VISAO	Visão Prev	Telefónica Brasil, Terra Networks, TGLog, TIS and Cloud Co

The main actuarial assumptions used in valuing these plans are as follows:

	12/31/2022	12/31/2021
Discount rate	9.75% - 9.83%	8.56% - 8.78%
Nominal rate of salary increase	4.57% - 6.35%	4.32% - 6.09%
Long-term inflation rate	3.50 %	3.25 %
Growth rate for medical costs	6.61 %	6.35 %
Mortality tables	AT 2000 M/F	AT 2000 M/F

The discount rate and growth rate for medical costs are considered to be the most significant actuarial assumptions with a reasonable possibility of fluctuations depending on demographic and economic changes and may significantly change the amount of the post-employment benefit obligation. The sensitivity to changes in these assumptions is shown below:

	Present value of the discounted obligation at the current discount rate	Present value of the obligation by increasing the discount rate by 0.5%	Present value of the obligation by reducing the discount rate by 0.5%
Pension plans	354	341	367
Health plans	268	253	286
Total obligation	622	594	653

	Present value of the obligation at the current growth rate for medical costs	Present value of the obligation by increasing the rate by 1%	Present value of the obligation by reducing the rate by 1%
Pension plans	354	354	354
Health plans	268	305	238
Total obligation	622	659	592

Other employee benefits

Telefónica de España, Telefónica Móviles España and Telefónica Soluciones Individual Suspension Plans

In 2015 Telefónica de España, S.A.U., Telefónica Móviles España, S.A.U. and Telefónica Soluciones de Informática y Comunicaciones de España, S.A.U. signed the first Collective Bargaining Agreement of Related Companies (CEV). This agreement considered elements that included a plan of measures for individual suspension of the employment relationship in 2016 and 2017, applying principles of voluntariness, universality, non-discrimination and social responsibility. In December 2016, the Collective Bargaining Agreement of Related Companies was extended until 2018 by virtue of the provisions thereof. In September 2019 Telefónica España signed the second Collective Agreement of Related Companies that includes, among other aspects, an "Individual Suspension Plan" that is completely voluntary for the year 2019, with the same conditions as the previous one. In 2021, Telefónica España signed a Social Pact for Employment supported by the largest trade unions, which contemplate and Individual Suspension Plan of employment, fully voluntary (see Note 2).

These plans are based on mutual agreement between the company and employees and entail the possibility of voluntarily suspending the employment relationship for an initial three-year period, renewable for consecutive three-year periods until the retirement age. Employees who meet the age and seniority requirements may enter the Individual Suspension Plans (PSI) in the periods opened for these purposes.

At the end of each period, the current value of the forecast payment flows to meet the commitments of these programs (applying certain hypotheses regarding estimated number of accessions and future reintegration ratio) is recognized. At 2022 and 2021 year-ends, this figure was calculated using the biometric table PERM2020 published in the resolution of December 17, 2020 combined with the invalidity table published in the ministerial order of 1977 and a high quality credit market based interest rate.

The provision at December 31, 2022 amounted to 4,150 million euros (5,240 million euros at December 31, 2021).

The discount rate used for these provisions at December 31, 2022 was 3.71% with an average plans length of 3.53 years.

Sensitivity of the valuation

The table below shows the sensitivity of the value of termination, post-employment and other obligations, including the Individual Suspension Plans of Telefónica Group companies in Spain to changes in the discount rate:

-100 b.p.		+100 b.p.	
Impact on value	Impact on income statement	Impact on value	Impact on income statement
(147)	(147)	138	138

A 100 b.p. increase in the discount rate would reduce the value of the liabilities by 138 million euros and have a positive impact on the income statement of 138 million euros before tax. On the other hand, a 100 b.p. decrease in the discount rate would increase the value of the liabilities by 147 million euros and have a negative impact on the income statement of 147 million euros before tax.

The Telefónica Group actively manages this position and has arranged a derivatives portfolio to significantly reduce the impact of changes in the discount rate (see Note 19).

b) Provisions for dismantling of assets

The movement of provision for dismantling of assets in 2022 and 2021 is as follows:

	Millions of euros
Dismantling of assets at December 31, 2020	677
Additions	36
Accretion	(39)
Retirements/amount applied	(35)
Transfers	(4)
Business sale	(47)
Translation differences and other	(11)
Dismantling of assets at December 31, 2021	577
Additions	141
Accretion	(160)
Retirements/amount applied	(41)
Transfers	16
Translation differences and other	(5)
Dismantling of assets at December 31, 2022	528

"Business sale" in 2021 included the second phase of the sale of towers by Telefonica Germany (see Note 2).

The detail by segments of provision for dismantling of assets in 2022 and 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Telefónica Spain	18	21
Telefónica Germany	323	396
Telefónica Brazil	71	60
Telefónica Hispam	116	100
Total	528	577

c) Other provisions

The movement in "Other provisions" in 2022 and 2021 is as follows:

	Millions of euros
Other provisions at December 31, 2020	1,894
Additions and accretion	795
Retirements/amount applied	(600)
Transfers	45
Translation differences and other	(6)
Other provisions at December 31, 2021	2,128
Additions and accretion	856
Retirements/amount applied	(646)
Business combinations	226
Transfers	(7)
Translation differences and other	73
Other provisions at December 31, 2022	2,630

"Business combinations" in 2022 mainly correspond to provisions related to the acquisition of mobiles assets of Oi (see Note 5).

The Group is exposed to risks of claims and litigation, mainly relating to tax and regulatory proceedings, and labor and civil claims.

Given the nature of the risks covered by these provisions, no reliable schedule of potential payments, if any, can be determined.

Telefónica Brazil

Telefónica Brasil, S.A. and its subsidiaries are party to administrative and judicial proceedings and labor, tax and civil claims filed in different courts. The Telefónica Group management based on the opinion of its legal counsel, recognized provisions for proceedings for which an unfavorable outcome is considered likely.

The balance of these provisions at December 31, 2022 and December 31, 2021 is shown in the following table:

Millions of euros	12/31/2022	12/31/2021
Tax proceedings	446	340
Regulatory proceedings	336	314
Labor claims	97	77
Civil proceedings	214	148
Amounts to be refunded to customers	108	—
Provision for fines for canceling lease agreements	99	—
Total	1,300	879

Additionally, Telefónica Brazil recognized contingent liabilities according to IFRS 3 generated on acquisition of the controlling interest of Vivo Participações in 2011, GVT in 2015 and the mobile assets of Oi in 2022 (see Note 5). These contingent liabilities amounted to 176 million euros at December 31, 2022 (77 million euros at December 31, 2021).

In 2022, Complementary Law No. 194 was enacted in Brasil, leading to a reduction in the tax rate ICMS on communications services and the respective refund of these amounts to customers. The provision in Telefónica Brasil at December 31, 2022 amounted to 108 million euros.

"Provision for fines for canceling lease agreements" relates to the acquisition of Garliava, resulting from the sale or shutdown of sites (see Note 5).

The detail of provisions for tax proceedings by nature of risk is as follows:

Millions of euros	12/31/2022	12/31/2021
Federal taxes	140	118
State taxes	200	133
Municipal taxes	8	6
FUST	98	83
Total	446	340

The breakdown of changes in provisions for tax proceedings in 2022 and 2021 is as follows:

	Millions of euros
Balance at 12/31/2020	282
Movements with a counterparty in the income statement	44
Write-offs due to payment	(19)
Monetary updating	29
Translation differences	4
Balance at 12/31/2021	340
Movements with a counterparty in the income statement	31
Write-offs due to payment	(6)
Monetary updating	37
Translation differences	44
Balance at 12/31/2022	446

Group management and legal counsel understand that losses are possible from tax contingencies in federal, state, municipal and other taxes for an aggregated amount of 33,473 million Brazilian reais (6,009 million euros) as of December 31, 2022 (30,249 million Brazilian reais, 4,786 million euros as of December 31, 2021). The possible contingencies from the main income tax proceedings (federal tax) are described in Note 25.

Noteworthy state tax-related contingencies include the "ICMS" tax (see Note 25). Moreover, Telefónica Brazil presently has different open proceedings regarding the Fundo de Universalização de Serviços de Telecomunicações (FUST, refer to Note 29).

With regard to regulatory proceedings, Telefónica Brazil is party to administrative proceedings against Agencia Nacional de Telecomunicações (ANATEL) based on an alleged failure to meet sector regulations and judicial proceedings to contest sanctions applied by ANATEL at the administrative level. Consolidated provisions totaled 1,869 million Brazilian reais (336 million euros) at December 31, 2022 (1,986 million Brazilian reais, 314 million euros at December 31, 2021). In addition, Group management and legal counsel understand that losses are possible from regulatory contingencies amounting to 5,845 million Brazilian reais (1,049 million euros) at December 31, 2022 (4,545 million Brazilian reais, 719 million euros at December 31, 2021), including the sanction for breaches of the Fixed Telephony Regulation (see Note 29.a).

In addition, Group management and legal counsel understand that losses are possible from civil proceedings, amounting to 391 million euros at December 31, 2022 (335 million euros at December 31, 2021).

In some situations, in connection with a legal requirement or presentation of guarantees, judicial deposits are made to secure the continuance of the claims under discussion. The judicial deposits by nature of risk at December 31, 2022 and December 31, 2021 are as follows:

Millions of euros	12/31/2022	12/31/2021
Tax proceedings	280	238
Labor claims	21	29
Civil proceedings	248	132
Regulatory proceedings	54	45
Garnishments	4	4
Total	607	448
Current (see Note 15)	106	17
Non-current (see Note 12)	501	431

Note 25. Tax matters

Pursuant to a Ministerial Order dated December 27, 1989, Telefónica, S.A. files consolidated tax returns in Spain for certain Group companies. The consolidated tax group comprised 47 companies at December 31, 2022 (45 companies at December 31, 2021).

This tax consolidation regime applies indefinitely providing the companies continue to meet the requirements set down in prevailing legislation, and that application of the regime is not expressly waived.

Group companies which are resident in Spain and which are not part of this consolidation regime and non-resident companies file individual or aggregated tax returns under the tax law applicable in each country.

Deferred taxes movement

The movements in deferred taxes in the Telefónica Group in 2022 and 2021 are as follows:

Millions of euros	Deferred tax assets	Deferred tax liabilities
Balance at December 31, 2021	5,616	2,602
Additions	1,080	685
Disposals	(1,877)	(400)
Transfers	21	(30)
Translation differences and hyperinflation adjustments	42	184
Company movements and others	2	26
Balance at December 31, 2022	4,884	3,067

Millions of euros	Deferred tax assets	Deferred tax liabilities
Balance at December 31, 2020	6,416	2,620
Additions	952	499
Disposals	(1,697)	(472)
Transfers	2	(60)
Translation differences and hyperinflation adjustments	(36)	42
Company movements and others	(21)	(27)
Balance at December 31, 2021	5,616	2,602

The Group assesses the recoverability of deferred tax assets based on the future activities carried out by the different companies, on tax regulations in the different countries in which these companies operate, and on the strategic decisions affecting the companies.

Main changes registered in 2022

In July 2022, Telefónica was notified of the Supreme Court's ruling rejecting the appeal filed by the State Attorney's Office against the Supreme Court's ruling of October 29, 2021, which had upheld the criteria for the use of tax losses and deductions maintained by Telefónica in relation to the settlement agreements arising from the corporate income tax audit for those years (see Inspections of the tax group in Spain in this note). On October 24, 2022, the Supreme Court's ruling was enforced, ordering the refund to Telefónica of 790 million euros for taxes paid in those years, as well as 526 million euros in late-payment interest (see "Breakdown of financial result" in Note 19). As a result of the new assessments made, in 2022 tax credits of Telefónica, S.A.'s tax group that had been capitalized at December 31, 2021, amounting to 512 million euros for tax loss carryforwards and 278 million euros for tax credits, were derecognized. Also, in relation to the above, an addition of deferred tax assets of the tax group was recorded, with a balancing entry in the income tax of the consolidated income statement of tax loss carryforwards in the amount of 58 million euros and a derecognition of tax credits for deductions in the amount of 16 million euros.

In December 2022, the consortium formed by CAA and Vauban (see Note 2) acquired 45% of Bluevia Fibra, S.L. (Bluevia) for an amount of 1,021 million euros in cash. The transaction has not had any impact on the consolidated income statement as it is a change in the percentage of ownership that has not resulted in a loss of control. In the context of this transaction, Bluevia acquired from Telefónica de España a number of assets constituting the business object of Bluevia (see Note 29.c) at their fair value at the transaction date, which was higher than the pre-existing net book value, generating an accounting gain at the headquarters of Telefónica de España which, as Bluevia is outside the consolidation perimeter of the tax group of Telefónica, S.A., forms part of the taxable income of the aforementioned tax group. However, from an accounting point of view, this difference in value is not reflected in the consolidated accounts as it is a transaction between companies of the same Group. The difference between the tax value of these assets in Bluevia and their book value in the Group's consolidated accounts has generated an asset for deductible temporary differences amounting to 548 million euros, recorded as additions in the table above.

As of December 31, 2022, the estimated recoverability of the deferred tax assets of the companies that continue to form part of the tax group after the exit of Bluevia has been assessed. As a result of this analysis, a reversal of deferred tax assets for tax loss carryforwards amounting to 85 million euros and 112 million euros of deductions has been recorded.

In 2022 there were additions of deferred tax assets for 10 million euros as a result of the provisions recognized during the year in relation to the various workforce restructuring plans and other obligations with employees of the companies include in the group in Spain (see Note 24). Likewise, disposals of deferred tax assets in 2022 included the impact of the materialization of these provisions and its financial update, amounting to 319 million euros.

Telefónica Germany recognized tax credits for loss carryforwards generated in previous years amounting to 76 million euros and applied tax loss carryforwards amounting to 46 million euros in 2022. Furthermore, Telefónica Germany recognized deferred tax liabilities disposals amounting to 42 million euros.

The additions of deferred tax assets included tax credits recognized for 76 million euros by the German company Group 3G UMTS Holding GmbH. Furthermore, this company applied tax loss carryforwards in 2022 amounting to 76 million euros.

Telefónica Brazil recognized deferred tax assets amounting to 78 million euros and applied tax loss carryforwards amounting 86 million euros in 2022. In addition Telefónica Brazil, recognized deferred tax liabilities amounting to 59 million euros and disposals amounting to 212 million euros.

Telefónica Colombia recognized deferred tax assets amounting to 26 million euros and applied tax loss carryforwards amounting 119 million euros in 2022. Furthermore, recognized deferred tax liabilities amounting to 22 million euros.

The movements relating to deferred taxes recognized directly in equity in 2022 amounted to 238 million euros of additions (net position of higher deferred tax liabilities) and 44 million euros of disposals (net position of higher deferred tax liabilities).

Likewise, the amount of recognized deferred tax liabilities associated with investments in subsidiaries amounted to 319 million euros as of December 31, 2022 (220 million euros as of December 31, 2021). The amount of unrecognized deferred tax liabilities associated with investments in subsidiaries amounted to 234 million euros as of December 31, 2022 (256 million euros as of December 31, 2021).

Main changes registered in 2021

Following the recoverability analysis of the Tax Group's deferred tax assets in Spain as of December 31, 2021, a reversal of deferred tax assets for tax loss carryforwards and deductions was recorded, with a balancing entry in income tax, amounting to 294 million euros (69 million euros of tax loss carryforwards and 225 million euros of deductions).

In addition in 2021, the company completed the tax audit procedure for the years 2014 to 2017, which involved the consumption of deferred tax assets amounting to 199 million euros of tax loss carryforwards and 193 million euros of deductions.

In addition to this, deferred tax liabilities and the associated deferred tax asset of 143 million euros was derecognized, after the state aid recuperation procedure corresponding to the years 2005 to 2018 goodwill tax amortization (see Tax deductibility of financial goodwill in Spain, later in this note).

In 2021 there were additions of deferred tax assets for 348 million euros as a result of the provisions recognized during the year in relation to the various workforce restructuring plans and other obligations with employees of the companies included in the group in Spain (see Note 24). Likewise, disposals of deferred tax assets in 2021 included the impact of the materialization of these provisions, amounting to 240 million euros.

Telefónica Brazil recognized deferred tax assets amounting to 221 million euros, mainly as a consequence of the Federal Supreme Court ruling of September 24, 2021, recognizing the unconstitutionality of the taxation in the Corporate Income Tax of interest received on taxes unduly paid in previous periods. In addition, recognized deferred tax liabilities amounting to 179 million euros mainly related to the tax amortization of goodwill.

Telefónica Germany recognized tax credits for loss carryforwards generated in previous years amounting to 77 million euros and applied tax loss carryforwards amounting to 118 million euros in 2021. Furthermore, Telefónica Germany recognized deferred tax liabilities disposals amounting to 110 million euros.

The additions of deferred tax assets included tax credits recognized for 72 million euros by the German company Group 3G UMTS Holding GmbH. Furthermore, this company applied tax loss carryforwards in 2021 amounting to 66 million euros.

In September 2021, the Social Investment Law (Law 2155 of 2021) was approved in Colombia, which establishes that as of 2022, the general income tax rate for legal entities is 35%. As a result of this amendment, the company recorded deferred tax assets additions of 71 million euros in 2021.

The movements relating to deferred taxes recognized directly in equity in 2021 amounted to 27 million euros of additions (net position of higher deferred tax liabilities) and 196 million euros of disposals (net position of higher deferred tax assets).

Expected realization of deferred tax assets and liabilities

The estimated realization of deferred tax assets and liabilities recognized in the consolidated statement of financial position in 2022 is as follows:

Millions of euros			
12/31/2022	Total	Less than 1 year	More than 1 year
Deferred tax assets	4,884	749	4,135
Deferred tax liabilities	3,067	296	2,771

Deferred tax assets less than one year mainly come from the Tax Group in Spain (458 million euros at December 31, 2022).

Deferred tax assets

Deferred tax assets in the accompanying consolidated statements of financial position include the tax loss carryforwards, unused tax credits recognized and deductible temporary differences recognized at the end of the reporting period.

Millions of euros	12/31/2022	12/31/2021
Tax credits for loss carryforwards	2,011	2,639
Unused tax deductions	565	903
Deferred tax assets for temporary differences	2,308	2,074
Total deferred tax assets	4,884	5,616

Tax credits for loss carryforwards

The movements in Tax credits for loss carryforwards in the Telefónica Group in 2022 and 2021 are as follows:

Location of the company (Millions of euros)	Balance at 12/31/2021	Additions	Reversals	Perimeter changes	Translation differences and other	Balance at 12/31/2022
Spain	999	58	(600)	—	—	457
Germany	778	153	(122)	1	—	810
Latin America	861	64	(216)	—	32	741
Other	1	3	(1)	—	—	3
Total tax credits for loss carryforwards	2,639	278	(939)	1	32	2,011

Location of the company (Millions of euros)	Balance at 12/31/2020	Additions	Reversals	Perimeter changes	Translation differences and other	Balance at 12/31/2021
Spain	1,283	—	(283)	—	(1)	999
Germany	813	150	(184)	—	(1)	778
Latin America	645	285	(41)	—	(28)	861
Other	—	—	—	2	(1)	1
Total tax credits for loss carryforwards	2,741	435	(508)	2	(31)	2,639

The Spanish tax group considers that unused tax loss carryforwards in Spain, taking into account tax litigation in which the group is involved, amount to 3,825 million euros at December 31, 2022:

Millions of euros	Total	Less than 1 year	More than 1 year
Tax loss carryforwards generated in the tax group	1,755	—	1,755
Tax loss carryforwards generated before consolidation in the tax group	2,070	143	1,927

Total tax credits for loss carryforwards in Spain in the statement of financial position at December 31, 2022 amounted to 457 million euros (999 million euros at December 31, 2021). Total unrecognized tax credits for loss carryforwards of the Spanish tax group amounted to 498 million euros. These tax credits do not expire.

The Group companies in Germany have recognized 810 million euros of tax credits for loss carryforwards at December 31, 2022. Total unrecognized tax credits for loss carryforwards of these companies amount to 5,452 million euros. These tax credits do not expire.

Recognized tax credits in the consolidated statement of financial position arising from the Latin American subsidiaries at December 31, 2022 amounted to 741 million euros. Total unrecognized tax credits for tax loss carryforwards in Latin America amounted to 683 million euros.

Deductions

The Group has recognized 565 million euros of tax credits from deductions at December 31, 2022, in Spain (903 million euros in 2021), generated primarily from export activity, R+D+i, double taxation and donations to non-profit organizations.

Temporary differences

The sources of deferred tax assets and liabilities from temporary differences recognized at December 31, 2022 and 2021 are as follows:

Millions of euros	12/31/2022	12/31/2021
Goodwill and intangible assets	828	244
Property, plant and equipment	473	350
Personnel commitments	1,278	1,577
Provisions	935	817
Inventories and receivables	324	308
Rights of use	51	59
Lease liabilities	1,049	1,068
Other concepts	267	187
Total deferred tax assets for temporary differences	5,205	4,610
Deferred tax assets and liabilities offset	(2,897)	(2,536)
Total deferred tax assets for temporary differences registered in the statement of financial position	2,308	2,074
Millions of euros	12/31/2022	12/31/2021
Goodwill and intangible assets	1,970	1,712
Property, plant and equipment	1,282	1,204
Personnel commitments	12	11
Provisions	447	403
Investments in subsidiaries, associates and other shareholdings	374	278
Inventories and receivables	—	6
Rights of use	1,046	1,093
Other concepts	833	431
Total deferred tax liabilities for temporary differences	5,964	5,138
Deferred tax assets and liabilities offset	(2,897)	(2,536)
Total deferred tax liabilities for temporary differences registered in the statement of financial position	3,067	2,602

Deferred tax assets and liabilities are offset if a legally enforceable right exists to offset current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

The heading "Other concepts" includes, among others, the difference between the accounting and tax values created by the value of financial derivatives at year end (see Note 19).

Tax payables and receivables

Current tax payables and receivables at December 31, 2022 and 2021 are as follows:

Millions of euros	Balance at 12/31/2022	Balance at 12/31/2021
Tax payables		
Tax withholdings	96	98
Indirect taxes	390	476
Social security	114	163
Current income taxes payable	957	1,120
Other	363	169
Total	1,920	2,026

Millions of euros	Balance at 12/31/2022	Balance at 12/31/2021
Tax receivables		
Indirect taxes	569	705
Current income taxes receivable	1,549	1,310
Other	95	105
Total	2,213	2,120

The heading "Current income taxes receivable" as of December 31, 2022 includes a receivable from Telxius Telecom amounting to 876 million euros (875 as of December 31, 2021) corresponding to the income tax for the 2021 fiscal year, which was mainly generated by the second advance corporation tax paid for 2021 ("minimum instalment payment regime", regulated by RDL 2/2016 of 30 September, which is calculated on the positive result of the consolidated profit and loss account of its tax group whose parent company is Telxius Telecom). The profit obtained on the sale of its tower division subsidiaries, despite being tax exempt (at 95%) from corporate income tax, was nevertheless included in the basis for calculating the instalment payment. This credit was included into consideration for the annual corporate income tax return for 2021, which was filed in July 2022. The effective recovery of this credit has taken place in January 2023.

On May 13, 2021 the Supreme Court of Brazil concluded the judgment of one of the most important tax disputes in Brazil, related to the exclusion of the ICMS tax (state tax on goods and services) in the PIS/COFINS (Contribuição para Financiamento da Seguridade Social) tax base. In 2021 2,269 million Brazilian reais (equivalent to 356 million euros at the average exchange rate of 2021) have been registered in "Current income taxes receivable". The impact in the consolidated income statement at 2021 amounted to 1,660 million Brazilian reais (261 million euros) reducing "Taxes other than income tax" within "Other expenses" (see Note 26), 573 million Brazilian reais (90 million euros) in "Finance income" (see Note 19) and 36 million Brazilian reais correspond to monetary updating (6 million euros).

Additionally, Telefónica Brazil has another legal proceeding that became final in 2018 for which it partially recognized the credit. The remaining portion of this process, relating to the period from April 1998 to June 2002 was not recognized at that time, as Telefónica Brazil considered it to be a contingent asset and, therefore, did not meet the parameters for its accounting recognition. In August 2022, based on the evolution of more recent decisions handed down by the STF that could impact the process in question, Telefónica Brazil, supported by the opinions of its legal advisors, concluded that the aforementioned process reached the status of net recoverability and therefore would be entitled to the accounting recognition of the remaining portion of the credit. Consequently, in 2022 1,146 million Brazilian reais (212 million euros at the average exchange rate of December, 2022) has been registered in "Current income taxes receivable". The impact in the consolidated income statement at 2022 amounted to 397 million Brazilian reais (73 million euros) reducing "Taxes other than income tax" within "Other expenses" (see Note 26), 749 million Brazilian reais (139 million euros) in "Finance income" (see Note 19) and 67 million Brazilian reais correspond to monetary updating (12 million euros). In 2022 the Company started the offset of said credit.

At December 31, 2022 the credits pending compensation for the refund for the payments of PIS/COFINS amounting to 787 million Brazilian reais, equivalent to 141 million euros at the closing exchange rate of December 31, 2022 (1,579 million Brazilian reais at December 31, 2021, 250 million euros at the closing exchange rate).

Reconciliation of book profit before taxes to taxable income

The reconciliation between book profit before tax and the income tax expense from continuing operations for 2022, 2021 and 2020 is as follows:

Millions of euros	2022	2021	2020
Accounting profit before tax	2,960	12,095	2,583
Tax expense at prevailing statutory rate	797	2,768	532
Permanent differences	(793)	(1,705)	289
Changes in deferred tax charge due to changes in tax rates	1	51	14
(Capitalization)/reversal of tax deduction and tax relief	88	225	(103)
(Capitalization)/reversal of loss carryforwards	197	(307)	(88)
Increase/(decrease) in tax expense arising from temporary differences	43	84	(8)
Other concepts	308	262	(10)
Corporate income tax	641	1,378	626
Breakdown of current/deferred tax expense			
Current tax expense	(218)	831	462
Deferred tax expense	859	547	164
Total Corporate income tax	641	1,378	626

2022

"Permanent differences" in 2022, mainly includes 651 million of income corresponding to the last corporate simplification implemented in Brazil due to the approval in 2021 of a new Telecommunications Law (Law 14.195 of 26 August 2021), the consequent repeal of Decree 2.617/1998, which abolishes the obligation to control a telecommunications company through a Brazilian company.

Likewise, as a result of the closure of the tax inspection of Group 3G UMTS Holding GmbH for several years up to 2015 and once it was confirmed that no adjustment was proposed, the company has reversed the provision that had been recorded for this purpose, with an impact on Corporate income tax of 186 million euros and in Finance income of 69 million euros. This movement has not had any cash effect.

(Capitalization)/reversal of tax deduction and tax relief in 2022 mainly includes the reversal of deferred tax assets for tax credits of the Telefónica, S.A. tax group amounting to 112 million euros, with a balancing entry in deferred tax expense.

(Capitalization)/reversal of loss carryforwards in 2022 mainly includes the effect of unrecorded tax loss carryforwards generated in the year and the reversal of tax loss carryforwards generated in prior years of the Telefónica, S.A. tax group, amounting to 326 million euros and 85 million euros, respectively. On the other hand, the recognition of tax credits for tax loss carryforwards generated in previous years of Telefónica Germany and Group 3G UMTS Holding GmbH are included too in (Capitalization)/reversal of loss carryforwards in 2022, amounting to 152 million euros (see Main changes registered in 2022 above in this note).

Other items in 2022 mainly include an expense of 241 million euros as a result of the provision for tax contingencies recorded during the year by Telefónica del Perú (see Tax litigation at Telefónica del Perú later in this note).

2021

"Permanent differences" in 2021 mainly included the effect of the corporate income tax exemption on capital gains generated on the constitution of VMED O2 UK and on the sale of Telxius' telecommunications tower division (see Note 2). It also included 387 million euros expense for the signing of the Settlement Agreement following the closure of the corporate income tax audit for the years 2014 to 2017 in Spain referred to in the section "Inspections of the tax group in Spain" of this note.

"Changes in deferred tax charge due to changes in tax rates" in 2021 included the impact of the change in the corporate income tax rate in Argentina, United Kingdom and Colombia. In Argentina the Law 27,630 of June 16, 2021 of the Corporation Tax established an increase in the nominal tax rate from 30% to 35% with retroactive effect from January 1st, 2021. In addition, on May 24, 2021 a change in the nominal tax rate from 19% to 25% was substantially enacted in the United Kingdom, which will begin to apply on April 1st, 2023. In September 2021, the so-called Social Investment Law (Law 2155 of 2021) was approved in Colombia, which established that as of 2022, the general income tax rate for legal entities is 35%. As a result of these changes in tax rates, a net deferred tax effect was recorded with a counterpart in Corporate income tax, amounting to 51 million euros.

"(Capitalization)/reversal of loss carryforwards" in 2021 included the recognition of tax credits in Telefónica Germany and Group 3G UMTS amounting to 77 million euros and 72 million euros, respectively, the recognition of tax credits in Brazil amounting to 221 million euros as a result of the decision of the Supreme Federal Court of 24 September 2021 referred to in the section "Main changes registered in 2021" of this note, partially compensated by the reversal of the tax group in Spain amounting to 65 million euros.

"Increase/(decrease) in tax expense arising from temporary differences" in 2021 mainly included the effect of deductible temporary differences not recognized in Telefónica México, amounting to 83 million euros.

The heading "Other concepts" in 2021 included an expense of 97 million euros as a result of the provision for tax contingencies recorded by Telefónica del Perú in the year (see "Tax litigation in Telefónica del Perú" later in this note) and 97 million euros for the taxation of dividend income from Spanish companies.

2020

"Permanent differences" in 2020 included the effect of the non-deductible charge for the impairment losses on goodwill and other assets of Telefónica Argentina (see Note 7).

"(Capitalization)/reversal of loss carryforwards" in 2020 included the recognition of tax credits in Telefónica Germany and Group 3G UMTS amounting to 159 million euros and 24 million euros, respectively, partially compensated by the reversal of the tax group in Spain amounting to 101 million euros.

"Increase/(decrease) in tax expense arising from temporary differences" in 2020 mainly included the recognition of deferred tax assets amounting to 184 million euros corresponding to deductible temporary differences of assets of Telxius Towers Germany, partially compensated by the effect of deductible temporary differences not recognized in Telefónica México, amounting to 152 million euros.

Tax deductibility of financial goodwill in Spain

The tax regulations added article 12.5 to the Spanish Corporate Income Tax Law, which came into force on January 1, 2002. The article regulated the deductibility of tax amortization of financial goodwill (fondo de comercio) arising from the acquisition of non-Spanish companies, which could be amortized over 20 years at 5% per annum.

Following the entry into force of the Laws 9/2011 of August 19, 2011 and 16/2013 of October 29, 2013, the amount of goodwill amortization deductible for tax purposes under article 12.5 for the years 2011 to 2015 was reduced from 5% to 1%. The effect is temporary because the 4% not amortized for five years (20% in total) will be recovered extending the deduction period from the initial 20 years to 25 years.

The Telefónica Group, under this regulation, has been amortizing for tax purposes the financial goodwill from its investments, both direct and indirect, in O2, BellSouth and ColTel (prior to December 21, 2007) and Vivo (acquired in 2010). The positive accumulated effect of the corresponding settlements of corporate income tax from 2004 to the closing of December 31, 2022, was 2,042 million euros.

In relation to this tax incentive, the European Commission (EC) has in recent years commenced three proceedings against the Spanish State, as it deems that this tax benefit could constitute an example of state aid. Although the EC itself acknowledged the validity of the tax incentive for those investors that invested in European companies for operations carried out before December 21, 2007 in the first decision, and before May 21, 2011 for investments in other countries in the second decision, in its third decision issued on October 15, 2014 it calls into question the applicability of the principle of legitimate expectations in the application of the incentive for indirect acquisitions, whatever the date of acquisition may have been.

There are also doubts in the Spanish Courts about the classification of the incentive as a deduction and its maintenance in the case of subsequent transmission.

On October 6, 2021, the Court of Justice of the European Union concluded that the European Commission correctly classified the Spanish tax depreciation scheme of the Fondo de Comercio as State aid incompatible with the internal market for the First and Second Decisions.

With regard to the recognition of legitimate expectations for the First and Second decisions, the Court of Justice of the European Union confirms its applicability.

The proceedings initiated on the Third Decision, suspended until the resolution of the 1st and 2nd Decisions, were reactivated in October 2021, and are still pending first instance judgment.

Notwithstanding the above, the "Tax and Customs Control Unit of the Spanish Tax Authority" (Dependencia de Control Tributario y Aduanero de la Agencia Tributaria), in compliance with the obligation set out in the EC Decision (EU) 2015/314, recovered in March 2019 and February 2021, the amounts that had been deducted in connection with the amortization of goodwill for the indirect acquisition of non-resident companies from 2005 to 2015 and 2016 to 2018 respectively, and has notified in December 2022 the recovery of the relevant amounts for the years 2019 to 2020. The recovery of such amounts is provisional, pending the final rulings on the appeals brought against the three decisions. The amount paid by Telefónica after offsetting outstanding tax credits (tax losses carryforward and deductions) amounted to 12 million euros.

Notwithstanding the fact that Telefónica understands that the principle of legitimate expectations in relation to this tax incentive applies, in relation to tax-amortized goodwill through the purchase of some companies for which the applicability of the legitimate expectations principle is questioned, mainly Vivo, the Group has released in 2021 the provision for the recovered part, 143 million euros, and has decided to continue provisioning the amount of the goodwill amortized for tax purposes, and not recovered by the Administration which amounted to 406 million euros as of December 31, 2022 (343 million euros as of December 31, 2021).

Inspections of the tax group in Spain

In July 2019, new inspection procedure were initiated for several of the companies belonging to Tax Group 24/90, of which Telefónica, S.A. is the dominant company. The concepts and periods that have been audited are: Corporate Income Tax for the years 2014 to 2017 and Value Added Tax, Withholdings Income Tax for the second half of 2015 and from 2016 to 2018.

A Settlement Agreement was signed in October 2021, in which Telefónica manifested its agreement with certain of the tax assessments resulting from the inspection (specifically, with respect to the tax treatment of the exchange differences generated by assets denominated in Venezuelan bolivars), and its disagreement with others (mainly the consideration of exempt income of the "Juros sobre capital propio" since 2015), producing an impact on results (tax expense) of 387 million euros, with a deferred tax asset reduction as detailed in "Main changes registered in 2021" in Note 25 to the Consolidated Financial Statements. However, the tax assessments did not result in a significant cash outflow as the Telefónica Group had tax credits, which substantially offset their impact.

The closing of the inspection procedure took place in January 2022, with the Settlement Agreement being notified, and which the Company challenged in an economic-administrative procedure at the Central Economic-Administrative Court due to the adjustments with which it did not agree, mainly related to the "juros sobre el capital propio". On 9 December 2022, the Company received a rejection resolution from the Central Economic-Administrative Court, which will be challenged on the National High Court.

In relation to the 2008-2011 inspection procedure, in July 2022 Telefónica was notified of the Supreme Court's decision rejecting the appeal for cassation filed by the State Attorney's Office against the judgment of the Audiencia Nacional (National High Court) of October 29, 2021. This confirmed the criteria used by Telefónica, S.A. for the use of tax losses carryforward and deductions in relation to the liquidation agreements derived from the Corporate Income Tax inspection of those years.

On October 24, 2022, an Agreement for the Execution of the Judgment of the Audiencia Nacional (National High Court) was issued, which orders the refund to Telefónica of an amount of 790 million euros for taxes paid in those years, as well as an amount of 526 million euros as delayed interest. Said amounts were collected on October 28, 2022.

As a consequence of the final outcome of the litigation above mentioned, no additional liabilities were recorded as of December 31, 2022

Tax litigation in Telefónica Brazil

State taxes

The Telefónica Group is involved in a range of tax litigation in Brazil over direct and indirect taxes (including those relating to GVT). This includes a number of appeals relating to ICMS tax (a tax similar to VAT, levied on telecommunications services). There is a dispute with the Brazilian tax authorities over which services should be subject to this tax.

To date the most significant issues have focused on the requirement to collect ICMS on penalties charged to customers for non-compliance, and complementary or additional services to the basic telecommunications services such as value-added services, modem rental, and the application of this tax on the basic fee (assinatura básica). In the case of the latter (assinatura básica), the Supreme Court has established that the tax is only payable in respect of assessments for periods after October 2016.

All related procedures are being contested in all instances (administrative and court proceedings). The aggregate amount of the relevant proceedings, updated to take into account interest, fines and other items, is approximately 21,712 million Brazilian reais as of December 31, 2022 (approximately 3,898 million euros at the exchange rate on that date, see Note 24 to the Consolidated Financial Statements), 19,164 million Brazilian reais as of December 31, 2021 (approximately 3,032 million euros at the exchange rate on that date). Telefónica Brazil has obtained independent expert reports supporting its position, i.e. that the aforesaid services are not subject to ICMS.

Federal taxes

In addition, there are possible contingencies in relation to the income tax federal taxes for the total amount of 29,778 million Brazilian reais as of December 31, 2022 (approximately 5,346 million euros at the exchange rate on that date), 18,078 million Brazilian reais as of December 31, 2021 (approximately 2,860 million euros at the exchange rate on that date), mainly related to the tax amortization in Brazil in the years 2011 to 2020 of the goodwill originated in the acquisitions of Vivo and GVT and their subsequent merger with Telefónica Brasil. These proceedings are at the administrative and judicial stage and no provisions have been made since the potential risk associated with them has been classified as "not probable" and Telefónica Brazil has received independent expert reports that support this view.

There are other probable contingencies in relation to the income tax federal taxes for the total amount of 104 million Brazilian reais as of December 31, 2022 (approximately 19 million euros at the exchange rate on that date), 98 million Brazilian reais as of December 31, 2021 (approximately 16 million euros at the exchange rate on that date). The Company has recognized a provision for this amount.

Tax litigation in Telefónica del Perú

In relation to tax claims in Peru, it should be noted that Telefónica del Perú is party to numerous legal proceedings (contentious administrative proceedings (ACAs) and appeals (amparos)) for tax matters relating to corporate income tax and VAT, mainly for the years 1998 to 2005, the most relevant being those corresponding to the years 1998 to 2001 (relating to corporate income tax, payments in advance, credit balances, associated VAT, interest and applicable penalties).

The evolution of the appeals of the different cases from the period 1998 to 2001 has been uneven and complex over the last few years, but we can highlight the second instance Judgment of 2015, which was partially upheld; the Supreme Court Judgments of 2019; the January 2020 Supreme Court Ruling, annulling the previous rulings of 2000 and 2001 in relation to the provision for doubtful debts; the Constitutional Court Rulings in 2021 in relation to the settlement of late payment interest, partially upheld; and the Supreme Court Rulings of 2021 and 2022 on the credit balance from 1999 used in 2000.

On January 17 and 18, 2023, Telefónica del Perú received notifications of the judgments handed down by the Supreme Court that resolved, in the last instance and unfavorably to the Company (references to the "Company" in this section refer to Telefónica del Perú), the contentious administrative proceedings relating to income tax for the years 1998, 2000 and 2001.

The rulings issued by the Fifth Chamber of Constitutional and Social Transitory of the Supreme Court do not contain any payment mandate to the Company, as the rulings issued in the administrative contentious proceedings were resolved on concepts derived from a pronouncement of the Tax Court. At the end of these proceedings - and any others that may be applicable - the Tax Administration, through an administrative act, will determine the amount of the corresponding payment obligations.

Because there were certain adjustments on which the rulings had been definitive since 2015 (positively for the Company in relation to the deductibility of the rental of public spaces and negatively in the case of the deductibility of certain financial charges), the Company previously recorded a provision with an impact on income tax, the amount of which has been updated periodically and constantly depending on the evolution of the various proceedings and the applicable interest rates.

In addition to the above, in June 2022 a new ruling was received from the Tax Court in relation to the corporate income tax of Telefónica Móviles del Perú for 2000. This ruling was favorable to the Company with respect to the recognition of the tax value of certain network assets and unfavorable with respect to the deductibility of the exchange rate tax.

In relation to all these proceedings, the Group considers that the initial amount claimed by the Peruvian government has been exponentially increased by the accrual of interest generated by the delay, not attributable to the Company, of almost 20 years in processing the lawsuits, meaning that almost 80% of the total amount claimed is due to interest and fines. And all this, despite the fact that in 2021 the Constitutional Court itself ruled in favor of Telefónica del Perú, recognizing that it had been charged interest for delays not attributable to the company.

For this and other reasons, the Group has been in international arbitration before ICSID since March 2021 for various conducts of the Peruvian State in violation of the Agreement for the Promotion and Reciprocal Protection of Investments between Spain and Peru (see Note 29.a).

The Company has recorded the necessary provisions for the contingencies considered probable, leaving as possible contingencies an amount of 560 million Peruvian soles at December 31, 2022 (approximately 138 million euros).

As of December 31, 2022, the total amount of tax contingencies related to Telefónica del Perú that the Group has recognized in its consolidated financial statements, including as the most relevant amount that related to the aforementioned judgements and rulings received since 2015, plus accrued interest and other above-mentioned impacts, amounts to 3,849 million Peruvian soles which is equivalent to 945 million euros at the exchange rate of December 31, 2022.

Years open for inspection in the Group companies

The years open for review by the tax inspection authorities for the main applicable taxes vary from one consolidated company to another, based on each country's tax legislation, taking into account their respective statute of limitations periods. In Spain the taxes from 2018 onwards are open to inspection.

In the other countries in which the Telefónica Group has a significant presence, the years open for inspection by the relevant authorities are generally as follows:

- The last eleven years in Germany.
- The last eight years in the United Kingdom.
- The last seven years in Argentina.
- The last six years in Venezuela
- The last five years in Brazil, Mexico, Colombia, Uruguay and the Netherlands.
- The last four years in Peru.
- The last three years in Chile, Ecuador and the United States.

The tax inspection of the open years is not expected to give rise to additional material liabilities for the Group.

Note 26. Revenue and expenses

Revenues

The breakdown of Revenues for the years 2022, 2021 and 2020 is as follows:

Millions of euros	2022	2021	2020
Rendering of services	34,854	34,117	37,394
Sales	5,139	5,160	5,682
Total	39,993	39,277	43,076

Sales mainly include the sale of mobile terminals.

Other income

The breakdown of "Other income" is as follows:

Millions of euros	2022	2021	2020
Own work capitalized	783	771	873
Gain on disposal of businesses	205	11,008	67
Gain on disposal of property, plant and equipment	582	478	270
Gain on disposal of intangible assets	1	7	6
Government grants	16	13	17
Other operating income	478	396	354
Total	2,065	12,673	1,587

"Gain on disposal of businesses" in 2022 mainly includes the gain from the sale of fiber optics assets of Colombia Telecomunicaciones, amounting to 162 million euros and the gain from the establishment of the joint company for the deployment of fiber in the United Kingdom amounting to 20 million euros (see Note 10).

"Gain on disposal of businesses" in 2021 mainly included the gain from the sale of the towers division of Telxius (6,099 million euros, see Note 2), the gain generated in the constitution of the joint venture VMO2 (4,460 million euros, see Note 2), the gain from the sale of 60% of the shares of InfraCo, SpA (274 million euros, see Note 2) and the gain from the sale of Telefónica de Costa Rica (136 million euros, see Note 2).

"Gains on disposal of companies" in 2020 included the impact of the initial registration of Telefónica's joint venture with Allianz for the deployment of fiber (FTTH) in Germany (see Note 29.c).

"Gain on disposal of property, plant and equipment" includes the gains on sale and leaseback transactions, which amounted to 381 million euros, 263 million euros and 79 million euros in 2022, 2021 and 2020, respectively (Note 20).

Other expenses

The breakdown of “Other expenses” is as follows:

Millions of euros	2022	2021	2020
Leases included in "Other expenses" ⁽¹⁾	86	80	89
Other external services	8,731	8,604	9,617
Taxes other than income tax	834	703	902
Change in trade provisions	693	660	860
Losses on disposal of fixed assets and changes in provisions for fixed assets	124	51	416
Goodwill impairment (Note 7)	—	416	519
Other operating expenses	273	462	468
Total	10,741	10,976	12,871

⁽¹⁾ Following the adoption of IFRS 16 (Leases) in 2019, only included short-term leases and leases of low-value or intangible assets (see Notes 9).

"Losses on disposal of fixed assets and changes in provisions for fixed assets" in 2022 includes impairment losses of intangible assets and property, plant and equipment of Telefónica Argentina, for a total amount of 77 million euros (see Notes 6 and 8).

"Losses on disposal of fixed assets and changes in provisions for fixed assets" in 2020 includes impairment losses of intangible assets and property, plant and equipment of Telefónica Argentina, for a total amount of 375 million euros.

"Taxes other than income tax" includes the outstanding credits related to the court decisions in favor of Telefónica Brasil which recognized the right to deduct the ICMS from the calculation base of the PIS and COFINS. The impact was 73 million euros reducing "Taxes other than income tax" in 2022 (261 million euros and 75 million euros in 2021 and 2020, respectively, see note 25).

Purchases and other contractual commitments

The estimated payment schedule for purchases and other contractual commitments (non-cancelable without penalty cost) is as follows:

Millions of euros	Purchases and other contractual commitments
Less than 1 year	3,991
1 to 3 years	4,269
3 to 5 years	2,281
More than 5 years	1,744
Total	12,285

The purchases and other contractual commitments in the table above include 850 million euros corresponding to power purchase agreements (PPAs), mainly from Telefónica Spain for the period from 2023 to 2031 and Telefónica Germany from 2025 to 2035 (see Note 29.d). The Group uses these contracts to purchase energy from sustainable sources, such as wind and solar, at generally fixed prices (see Note 3.l).

Commitments for short-term leases and low value leases amounted to 33 million euros as of December 31, 2022. In addition, lease collection commitments amounted to 8 million euros as of December 31, 2022.

Headcount

The table below presents the breakdown of the Telefónica Group's average number of employees by fully consolidated segment (see Note 4) in 2022, 2021 and 2020, together with total headcount at December 31 each year.

	2022		2021		2020	
	Average	Year-end	Average	Year-end	Average	Year-end
Telefónica Spain	21,099	20,947	22,872	22,976	22,992	22,978
Telefónica United Kingdom	—	—	2,884	—	6,501	6,318
Telefónica Germany	7,029	7,099	7,375	7,056	7,770	7,701
Telefónica Brazil	34,275	34,846	33,987	34,343	33,938	33,828
Telefónica Hispam	30,232	29,994	31,806	30,717	33,872	33,506
Other companies	9,928	10,765	8,852	9,058	8,109	8,466
Total	102,563	103,651	107,776	104,150	113,182	112,797

At December 31, 2022, approximately 39% of the final headcount are women (approximately 38% at December 31, 2021).

At December 31, 2022, the number of employees with disabilities is 1,482 (1,128 employees at December 31, 2021), of which 314 employees are in Spain (267 employees in 2021).

In 2022, the average number of employees of Telefónica Tech UK & Ireland, Ltd. (acquired on July 29, 2021), Incremental (see Note 5) and BE-terna (see Note 5) amounted to 609, 330 and 954 people, respectively.

Depreciation and amortization

The breakdown of "Depreciation and amortization" on the consolidated income statement is as follows:

Millions of euros	2022	2021	2020
Property, plant and equipment (Note 8)	4,133	4,360	5,022
Intangible assets (Note 6)	2,599	2,388	2,735
Rights of use (Note 9)	2,064	1,649	1,602
Total	8,796	8,397	9,359

Earnings per share

Basic earnings per share amounts are calculated by dividing (a) the profit for the year attributable to equity holders of the parent, adjusted for the net coupon corresponding to the undated deeply subordinated securities (see Note 17.c) by (b) the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share amounts are calculated by dividing the net profit for the year attributable to ordinary equity holders of the parent, adjusted as described above, by the weighted average number of ordinary shares adjusted as described in the preceding paragraph, plus the weighted average number of ordinary shares that would be issued on the conversion of all the dilutive potential ordinary shares into ordinary shares.

Both basic and diluted earnings per share attributable to equity holders of the parent are calculated based on the following data:

Millions of euros	2022	2021	2020
Profit attributable to ordinary equity holders of the parent company	2,011	8,137	1,582
Adjustment for the coupon corresponding to perpetual subordinated obligations	(279)	(337)	(334)
Tax effect	70	84	84
Total profit attributable to ordinary equity holders of the parent for basic and diluted earnings per share	1,802	7,884	1,332

Number of shares (thousands)	2022	2021 (*)	2020 (*)
Weighted average number of ordinary shares for basic earnings per share (does not include treasury shares)	5,740,105	5,864,070	5,952,695
Telefónica, S.A. plans of rights over shares	23,096	10,098	6,590
Weighted average number of ordinary shares outstanding for diluted earnings per share (excluding treasury shares)	5,763,201	5,874,168	5,959,285

(*) Revised data.

For the purposes of calculating the earnings per share (basic and diluted) attributable to equity holders of the parent, the weighted average number of shares outstanding is retrospectively adjusted for transactions that have changed the number of shares outstanding without a corresponding change in resources, as if such transactions had occurred at the beginning of the earliest period presented. Such is the case of the bonus share issues carried out to meet the *scrip dividend* (see Note 17.b).

Thus, basic and diluted earnings per share attributable to equity holders of the parent are as follows:

Earnings per share (euros)	2022	2021	2020
Basic	0.31	1.34	0.22
Diluted	0.31	1.34	0.22

Note 27. Share-based payment plans

Long-term incentive plan based on Telefónica, S.A. shares: Performance Share Plan 2018-2022

At the General Shareholders' Meeting held on June 8, 2018, a long-term incentive plan was approved, consisting of the delivery of shares of Telefónica, S.A. aimed at senior executive officers of the Telefónica Group, including the Executive Directors of Telefónica, S.A. The plan consists of the delivery to the participants of a certain number of shares of Telefónica, S.A. based on compliance with the objectives established for each of the cycles into which the plan is divided.

The number of shares to deliver depend (i) 50% on achievement of the total shareholder return ("TSR") objective for shares of Telefónica, S.A. with regard to the TSRs of a comparison group made up of companies of the telecommunication sector, weighted by its relevance for Telefónica, and (ii) 50% on the generation of free cash flow of Telefónica Group ("FCF").

The plan has a duration of five years and is divided into three cycles of three years each. The first cycle commenced in 2018 and finalized on December 31, 2020. The maximum number of shares assigned to this cycle of the plan was 8,466,996, assigned as of January 1, 2018 with a unit fair value of 6.4631 euros per share for FCF objective and 4.516 euros for TSR. As of December 31, 2020 the number of outstanding shares was 7,093,162. Once considered the target fulfillment levels for 2018, 2019, and 2020, a weighted achievement ratio of 50% was reached. Performance assessment was carried out based on the evolution of the stock price and on the audited results of the Company.

Nevertheless, on February 23, 2021, the Chairman & CEO declared in the Nominating, Retribution and Good Governance Committee that he considered appropriate to renounce to this incentive perception as a sign of responsibility with society, customers, shareholders and employees of Telefónica as well as a cautious measure after the economic impacts of the COVID-19 crisis. The COO made the same declaration. The renounce was accepted by the Board of Directors.

The second cycle commenced in 2019 and finalized on December 31, 2021. The maximum number of shares assigned to this cycle of the plan was 9,471,489 with a unit fair value of 6.1436 euros per share for FCF objective and 4.4394 euros for TSR. As of December 31, 2021 the number of outstanding shares was 7,494,896. Once considered the target fulfillment levels for 2019, 2020, and 2021, a weighted achievement ratio of 50% was reached. Performance assessment was carried out based on the evolution of the stock price and on the audited results of the Company.

In 2020 the third and final cycle commenced, which finalized on December 31, 2022. The maximum number of shares assigned to this cycle of the plan was 5,346,508, assigned as of January 1, 2020 with a unit fair value of 3.2136 euros per share for FCF objective and 1.6444 euros for TSR. As of December 31, 2022 the number of outstanding shares was 4,595,621. Once considered the target fulfillment levels for 2020, 2021, and 2022, a weighted achievement ratio of 50% has been reached. Performance assessment has been carried out based on the evolution of the stock price and on the audited results of the Company.

Long-term incentive plan based on Telefónica, S.A. shares: Performance Share Plan 2021-2025

At the General Shareholders' Meeting held on April 23, 2021, a long-term incentive plan was approved, consisting of the delivery of shares of Telefónica, S.A. aimed at senior executive officers of the Telefónica Group, including the Executive Directors of Telefónica, S.A. The plan consists of the delivery to the participants of a certain number of shares of Telefónica, S.A. based on compliance with the objectives established for each of the cycles into which the plan is divided.

The number of shares to deliver depend (i) 50% on achievement of the total shareholder return ("TSR") objective for shares of Telefónica, S.A. with regard to the TSRs of a comparison group made up of companies of the telecommunication sector, weighted by its relevance for Telefónica, (ii) 40% on the generation of free cash flow of Telefónica Group ("FCF"), and (iii) 10% on CO2 Emission Neutralization, in line with the goal set by the Company.

The plan has a duration of five years and is divided into three cycles of three years each. The first cycle commenced in 2021, with delivery of the respective shares in 2024. The maximum number of shares assigned to this cycle of the plan was 19,425,499 and the outstanding shares at December 31, 2022 was 18,544,534, with the following breakdown:

First cycle	No. of shares assigned	Outstanding shares at 12/31/2022	Unit fair value (euros)
TSR Objective	9,712,750	9,272,267	2.64
FCF Objective	7,770,200	7,417,814	3.15
CO2 E.N. Objective	1,942,550	1,854,453	3.15

The second cycle commenced in 2022, with delivery of the respective shares in 2025. The maximum number of shares assigned to this cycle of the plan was 15,069,650 and the outstanding shares at December 31, 2022 was 14,969,799, with the following breakdown:

Second cycle	No. of shares assigned	Outstanding shares at 12/31/2022	Unit fair value (euros)
TSR Objective	7,534,825	7,484,899	2.43
FCF Objective	6,027,860	5,987,920	2.95
CO2 E.N. Objective	1,506,965	1,496,980	2.95

Long-term incentive plan based on Telefónica, S.A. shares: "Talent for the Future Share Plan 2018-2022" (TFSP)

At its meeting on June 8, 2018, the Telefónica, S.A.'s Board of Directors agreed to launch the long-term incentive plan "Talent for the Future Share Plan".

The term of this plan is five years and it is divided into three cycles. As in the case of the Performance Share Plan 2018-2022 described above, the number of shares to deliver will depend (i) 50% on achievement of the total shareholder return ("TSR") objective for shares of Telefónica, S.A. and (ii) 50% on the generation of free cash flow of the Telefónica Group ("FCF").

The first cycle commenced in 2018 and finalized on December 31, 2020. The maximum number of shares assigned to this cycle of the plan was 787,500, assigned as of January 1, 2018 with a unit fair value of 6.4631 euros per share for FCF objective and 4.516 euros for TSR. As of December 31, 2020 the number of outstanding shares was 691,750. Once considered the target fulfillment levels for 2018, 2019, and 2020, a weighted achievement ratio of 50% was reached. Performance assessment was carried out based on the evolution of the stock price and on the audited results of the Company.

The second cycle commenced in 2019 and finalized on December 31, 2021. The maximum number of shares assigned to this cycle of the plan was 812,000, assigned as of January 1, 2019 with a unit fair value of 6.1436 euros per share for FCF objective and 4.4394 euros for TSR. As of December 31, 2021 the number of outstanding shares was 690,750. Once considered the target fulfillment levels for 2019, 2020, and 2021, a weighted achievement ratio of 50% was reached. Performance assessment was carried out based on the evolution of the stock price and on the audited results of the Company.

In 2020 the third and final cycle commenced, which finalized on December 31, 2022. The maximum number of shares assigned to this cycle of the plan was 897,400, assigned as of January 1, 2020 with a unit fair value of 3.2136 euros per share for FCF objective and 1.6444 euros for TSR. As of December 31, 2022 the number of outstanding shares was 761,600. Once considered the target fulfillment levels for 2020, 2021, and 2022, a weighted achievement ratio of 50% has been reached. Performance assessment has been carried out based on the evolution of the stock price and on the audited results of the Company.

Long-term incentive plan based on Telefónica, S.A. shares: “Talent for the Future Share Plan 2021-2025” (TFSP)

At its meeting on March 17, 2021, the Telefónica, S.A.'s Board of Directors agreed to launch a new installment of the long-term incentive plan "Talent for the Future Share Plan".

The term of this plan is also five years and it is divided into three cycles. As in the case of the Performance Share Plan 2021-2025 described above, the number of shares to deliver will depend (i) 50% on achievement of the total shareholder return ("TSR") objective for shares of Telefónica, S.A. with regard to the TSRs of a comparison group made up of companies of the telecommunication sector, weighted by its relevance for Telefónica, (ii) 40% on the generation of free cash flow of Telefónica Group ("FCF"), and (iii) 10% on CO2 Emission Neutralization, in line with the goal set by the Company.

The first cycle commenced in 2021, with delivery of the respective shares in 2024. The maximum number of shares assigned to this cycle of the plan was 1,751,500 and the outstanding shares at December 31, 2022 was 1,659,500, with the following breakdown:

First cycle	No. of shares assigned	Outstanding shares at 12/31/2022	Unit fair value (euros)
TSR Objective	875,750	829,750	2.64
FCF Objective	700,600	663,800	3.15
CO2 E.N. Objective	175,150	165,950	3.15

The second cycle commenced in 2022, with delivery of the respective shares in 2025. The maximum number of shares assigned to this cycle of the plan was 1,646,500 and the outstanding shares at December 31, 2022 was 1,611,000, with the following breakdown:

Second cycle	No. of shares assigned	Outstanding shares at 12/31/2022	Unit fair value (euros)
TSR Objective	823,250	805,500	2.43
FCF Objective	658,600	644,400	2.95
CO2 E.N. Objective	164,650	161,100	2.95

Incentivized purchases of Telefónica, S.A. shares for employees

The Telefónica, S.A. Ordinary General Shareholders' meeting on April 8, 2022 approved a new voluntary plan for incentivized purchases of shares of Telefónica, S.A. for the employees of the Group. Under this Plan, employees are offered the option to acquire Telefónica, S.A. shares during a twelve-month period, with the company undertaking to deliver a certain number of free shares to participants, subject to certain requirements. The maximum amount that each employee can invest is limited to 1,800 euros. The total number of free shares to be delivered for the whole plan may never exceed 0.38% of the share capital of Telefónica, S.A. at the date of approval of the plan at the General Shareholders' Meeting.

The purchase period commenced in October 2022 and will finalize in September 2023. In March 2024 the vesting period of the plan will end. At December 31, 2022, 27,518 employees had registered for the plan.

Note 28. Cash flow detail

Net cash flow provided by operating activities

The detail of net cash flow provided by operating activities is the following:

Millions of euros	2022	2021	2020
Cash received from operations	46,925	46,415	51,353
Cash paid from operations	(34,778)	(34,379)	(36,477)
Cash paid to suppliers	(29,509)	(29,236)	(31,080)
Cash paid to employees	(4,416)	(4,299)	(4,434)
Payments related to cancellation of commitments	(853)	(844)	(963)
Net payments of interest and other financial expenses net of dividends received	(292)	(1,309)	(1,171)
Net interest and other financial expenses paid	(1,236)	(1,519)	(1,193)
Dividends received	944	210	22
Taxes proceeds / (payments)	(92)	(459)	(509)
Net cash flow provided by operating activities	11,763	10,268	13,196

In 2022, dividends amounting to 800 million pounds were received from VMED O2 UK Ltd (see Note 10) equivalent to 909 million euros (161 million pounds, equivalent to 187 million euros in 2021).

Net cash flow used in investing activities

The following is a detail of the items comprising the net cash flow used in investing activities.

Millions of euros	2022	2021	2020
Proceeds from the sale in property, plant and equipment and intangible assets	842	564	509
Payments on investments in property, plant and equipment and intangible assets	(6,350)	(6,728)	(7,529)
(Payments on investments)/proceeds from the sale in property, plant and equipment and intangible assets	(5,508)	(6,164)	(7,020)

Payments for non-financed spectrum in 2022 totaled 27 million euros, mainly due to the payment of 11 million euros for Telefónica Móviles Argentina and 8 million euros for Telefónica de España.

Payments for non-financed spectrum in 2021 totaled 999 million euros, mainly due to the payment of 521 million euros for Telefónica United Kingdom, 343 million euros for Telefónica Spain and 131 million euros for Telefónica Chile.

Millions of euros	2022	2021	2020
Constitution of VMO2 ⁽¹⁾ (Note 2)	(256)	5,872	—
Sale of Telecommunications towers divisions of Telxius (Note 2)	2	7,434	—
Tax associated with the sale of the tower division of Telxius (Note 25)	—	(917)	—
Sale of Telefónica de Costa Rica	(15)	442	—
Sale of InfraCo	—	479	—
Tax associated with the sale of InfraCo	(124)	—	—
Sale of Telefónica Móviles El Salvador	116	—	—
Sale of fiber assets of Colombia Telecomunicaciones	55	—	—
Deferred collection sale of T. Ireland	35	35	—
Tax associated with the sales of operating businesses in Guatemala, Nicaragua and Panama in Telefónica Centroamérica Inversiones, S.L.	—	—	71
Others	72	24	10
(Payments)/proceeds on disposals of companies, net of cash and cash equivalents disposed	(115)	13,369	81
Oi mobile assets acquisition (Note 2)	(986)	—	—
Incremental acquisition (Note 5)	(178)	—	—
BE-terna acquisition (Note 5)	(328)	—	—
Cancom acquisition (Note 5)	—	(374)	—
Capital increase of UGG TopCo (Note 10)	(50)	(27)	—
Others	(86)	(13)	(79)
Payments on investments in companies, net of cash and cash equivalents acquired	(1,628)	(414)	(79)

⁽¹⁾ Cash received (see Note 2) less: (i) Cash and cash equivalents of Telefonica UK at the date of its exit from the scope of consolidation, and (ii) payments made in 2021 and 2022 to the O2 UK pension plan and other expenses (see Note 29.c).

Millions of euros	2022	2021	2020
Collateral guarantees on derivatives	2,891	1,897	2,224
Legal deposits	3	125	63
Others	73	141	21
Proceeds on financial investments not included under cash equivalents	2,967	2,163	2,308
Legal deposits	(4)	(7)	—
Collateral guarantees on derivatives	(2,195)	(1,228)	(3,251)
Investment in funds shares of Telefónica Brasil	—	(117)	—
Long-term financial instruments of Pegaso PCS (Note 12)	(260)	—	—
Others	(116)	(122)	(46)
Payments on financial investments not included under cash equivalents	(2,575)	(1,474)	(3,297)
Net proceeds/(payments) for temporary financial investments	1,532	(1,584)	217

Net proceeds/(payments) for temporary financial investments mainly includes placements of treasury surpluses not included in cash equivalents.

Net cash flow used in financing activities

The following is a detail of the items comprising the net cash flow used in financing activities.

Millions of euros	2022	2021	2020
Dividends paid to the shareholders of Telefónica, S.A. ⁽¹⁾	(959)	(617)	(825)
Payments to non-controlling interests of Telefônica Brasil, S.A.	(268)	(198)	(227)
Payments to non-controlling interests of Telefónica Deutschland Holding, A.G.	(161)	(165)	(156)
Payments to non-controlling interests of Telefónica Centroamérica Inversiones, S.L.	—	—	(39)
Payments to non-controlling interests of Telxius for the sale of the telecommunications tower divisions (see Note 17.h)	—	(2,603)	—
Payments to non-controlling interests of Telxius Telecom, S.A.	—	(42)	(44)
Others	(9)	(5)	(5)
Dividends paid (see Note 17)	(1,397)	(3,630)	(1,296)
Share capital increase Pontel and Telxius (see Note 17.h)	—	—	323
Establishment of Bluevia Fibra (see notes 2 and 17.h)	1,021	—	—
Others	1	—	—
Proceeds from share capital increase with minority interests	1,022	—	323
Own shares purchase of Telefónica Brasil	(111)	(78)	—
Shares purchase of Telefónica Deutschland	(48)	(51)	—
Transactions carried out by Telefónica, S.A. (see Note 17)	(365)	(478)	(217)
Telefónica Centroamérica Inversiones, S.L. share premium (ECPN.) refund related to the sale of T. Guatemala, T. Nicaragua and T. Panama	(44)	—	—
Others	13	3	(6)
(Payments)/proceeds of treasury shares and other operations with shareholders and with minority interests	(555)	(604)	(223)
Issuance of undated deeply subordinated securities (Note 17)	750	1,750	500
Acquisition of undated deeply subordinated securities (Note 17)	(750)	(1,750)	(385)
Payment of undated deeply subordinated securities (Note 17)	—	—	(808)
Payment of the coupon related to the issuances of undated deeply subordinated securities issued (see Note 17)	(268)	(354)	(327)
Operations with other equity holders	(268)	(354)	(1,020)

⁽¹⁾ This amount differs from that indicated in Note 17 because of withholding taxes deducted in the payment to certain major shareholders in accordance with current legislation.

Millions of euros	2022	2021	2020
Issued under the EMTN program of Telefónica Emisiones, S.A.U. (see Appendix III)	1,100	—	3,500
Issuance of Telefónica Móviles Chile, S.A.	—	535	—
Issuance of Telefónica Brasil, S.A. ^(*) (see Appendix III)	628	—	—
Issuance of Colombia Telecomunicaciones S.A, ESP BIC	—	—	408
Others	18	26	103
Proceeds on issue of debentures and bonds, and other debts	1,746	561	4,011
Disposal bilateral loans of Telefónica, S.A. (see Note 18)	150	200	350
Syndicated provision of 750 million euros by Telefónica Germany GmbH	—	750	—
Syndicated provision of Telxius Telecom, S.A. (see Note 18)	100	—	—
Disposal bilateral loan of Telefónica Brasil, S.A. ^(*) (see Note 18)	199	—	—
Syndicated provision of Bluevia Fibra S.L. (see Note 18)	245	—	—
Settlement of nominal value of gross debt hedging derivatives	89	—	1,119
Disposal bilateral loans and syndicated loan of Colombia Telecomunicaciones, S.A, ESP BIC	—	—	436
Others	56	2,135	2,611
Proceeds on loans, borrowings and promissory notes (see Appendix V)	839	3,085	4,516
Repayments of debentures and bonds, and other debts	(3,541)	(5,847)	(6,728)
Syndicated amortization by Telefónica, S.A.	—	(750)	—
Syndicated amortization by Colombia Telecomunicaciones, S.A. ESP BIC	—	(200)	—
Amortization bilateral loans of Colombia Telecomunicaciones, S.A. ESP BIC ^(*) (see Note 18)	(117)	—	—
Syndicated amortization by Telxius Telecom, S.A. (see Note 18)	(70)	—	—
Settlement of nominal value of amortized debt hedging derivatives	(715)	(34)	(139)
Others	(2,175)	(3,162)	(2,713)
Repayments of loans, borrowings and promissory notes (see Appendix V)	(3,077)	(4,146)	(2,852)
Lease principal payments (Note 20)	(1,996)	(1,782)	(1,787)
Financed spectrum licenses payments (Note 21)	(549)	(57)	(60)
Payments for investments in spectrum use licenses financed without explicit interest (Notes 2 and 21)	(108)	(108)	(87)
Payments to suppliers with extended payment terms (Note 18)	(41)	(108)	(235)
Financed operating payments and investments in property, plant and equipment and intangible assets payments	(698)	(273)	(382)

^(*) Data converted at the exchange rate at the end of each of the corresponding periods. The impact of the exchange rate with respect to the date of the transaction is included in the "Others" line within the same sub-heading.

Note 29. Other information

a) Litigation and arbitration

Telefónica and its Group companies are party to several legal proceedings which are currently in progress in the courts of law and the arbitration bodies of the various countries in which we are present.

Based on the advice of our legal counsel it is reasonable to assume that these legal proceedings will not materially affect the financial condition or solvency of the Telefónica Group.

The contingencies arising from the litigation and commitments described below were evaluated (see Note 3.n) when the consolidated financial statements for the year ended December 31, 2022 were prepared. The provisions recorded in respect of the commitments taken as a whole are not material.

The following unresolved legal proceedings or those underway in 2022 are highlighted (see Note 25 for details of tax-related cases):

Appeal against the decision by Agência Nacional de Telecomunicações (“ANATEL”) regarding the inclusion of interconnection and network usage revenues in the Fundo de Universalização de Serviços de Telecomunicações (“FUST”)

Vivo Group operators (currently "Telefónica Brasil"), together with other cellular operators, appealed ANATEL's decision of December 16, 2005, to include interconnection and network usage revenues and expenses in the calculation of the amounts payable into the FUST (Fundo de Universalização de Serviços de Telecomunicações) – a fund which pays for the obligations to provide Universal Service– with retroactive application from 2000. On March 13, 2006, Brasilia Federal Regional Court no. 1 granted a precautionary measure which stopped the application of ANATEL's decision. On March 6, 2007, a ruling in favor of the wireless operators was issued, stating that it was not appropriate to include the revenues received by transfer from other operators in the taxable income for the FUST's calculation and rejecting the retroactive application of ANATEL's decision. On January 26, 2016, ANATEL filed an appeal to overturn this decision with Brasilia Federal Regional Court no. 1, which was also dismissed. On May 10, 2017 ANATEL appealed to the higher courts on the merits of the case.

At the same time, Telefónica Brasil and Telefónica Empresas, S.A., together with other wireline operators through ABRAFIX (Associação Brasileira de Concessionárias de Serviço Telefonico Fixo Comutado) appealed ANATEL's decision of December 16, 2005, also obtaining the precautionary measures requested. On June 21, 2007, Brasilia Federal Regional Court no. 1 ruled that it was not appropriate to include the interconnection and network usage revenues in the FUST's taxable income and rejected the retroactive application of ANATEL's decision. ANATEL filed an appeal to overturn this ruling on April 29, 2008, before Brasilia Federal Regional Court no. 1, which was dismissed on May 10, 2016. ANATEL filed an appeal against this dismissal.

The fixed operators filed an appeal to clarify that revenues obtained through interconnection and dedicated line operation should not be included in the calculation of the amounts payable to the FUST. In addition, the court was also requested to rule on two grounds which had not been analyzed in the initial decision: (i) that the FUST has become obsolete, among other reasons, by the advance of mobile telephony; and (ii) that amounts collected are not applied to the purpose for which the FUST was created, since only a very low percentage of the revenues collected by the FUST is used to finance fixed telephony. Although the petition for clarification was dismissed on August 23, 2016, the court noted that the FUST should not be funded with revenues from interconnection and dedicated line operation. ABRAFIX appealed to the higher courts on these two elements that had not been analyzed. ANATEL appealed all the holdings of the ruling to the higher courts.

The amount of the claim is quantified at 1% of the interconnection revenues.

Appeal against the Decision of the European Commission dated January 23, 2013, to sanction Telefónica for the infringement of Article 101 of the Treaty on the functioning of the European Union

On January 19, 2011, the European Commission initiated formal proceedings to investigate whether Telefónica, S.A. (Telefónica) and Portugal Telecom SGPS, S.A. (Portugal Telecom) had infringed European Union antitrust laws with respect to a clause contained in the sale and purchase agreement of Portugal Telecom's ownership interest in Brasilcel, N.V., a joint venture in which both companies were venturers and which was the owner of the Brazilian company Vivo.

On January 23, 2013, the European Commission passed a ruling on the formal proceedings. The ruling imposed a fine on Telefónica in the amount of 67 million euros, as the European Commission ruled that Telefónica and Portugal Telecom committed an infraction of Article 101 of the Treaty on the Functioning of the European Union for having entered into the agreement set forth in Clause Nine of the sale and purchase agreement of Portugal Telecom's ownership interest of Brasilcel, N.V.

On April 9, 2013, Telefónica filed an appeal for annulment of this ruling with the European Union General Court. On August 6, 2013, the European Union General Court notified Telefónica of the response issued by the European Commission, in which the European Commission reaffirmed the main arguments of its ruling and, specifically, that Clause Nine includes a competition restriction. On September 30, 2013, Telefónica filed its reply. On December 18, 2013, the European Commission filed its appeal.

A hearing was held on May 19, 2015, at the European Union General Court.

On June 28, 2016, the European Union General Court ruled. Although it declared the existence of an infringement of competition law, it annulled Article 2 of the contested Decision and required the European Commission to reassess the amount of the fine imposed. The General Court considered that the European Commission has not neutralized the allegations and evidences provided by Telefónica on services in which there was not potential competition or were outside the scope of Clause Nine.

Telefónica understands that there are grounds for believing that the ruling does not suit at law; consequently, it filed an appeal to the Court of Justice of the European Union, on September 11, 2016.

On November 23, 2016, the European Commission filed its response against the Telefónica's appeal. On January 30, 2017, Telefónica filed its response. On March 9, 2017, the European Commission filed its rejoinder.

On December 13, 2017, the General Court dismissed the appeal filed by Telefónica. The European Commission, which was urged to recalculate the amount of the fine in the judgment of the General Court of June 2016, issued a resolution on January 25, 2022, imposing a fine of 67 million euros on Telefónica. In April 2022, Telefónica paid the fine of 67 million euros imposed, bringing the procedure to an end.

Decision by the High Court regarding the acquisition by Telefónica of shares in Český Telecom by way of a tender offer

Venten Management Limited ("Venten") and Lexburg Enterprises Limited ("Lexburg") were non-controlling shareholders of Český Telecom. In September 2005, both companies sold their shares to Telefónica in a mandatory tender offer. Subsequently, Venten and Lexburg, in 2006 and 2009, respectively, filed actions against Telefónica claiming a higher price than the price for which they sold their shares in the mandatory tender offer.

On August 5, 2016, the hearing before the High Court in Prague took place in order to decide the appeal against the second decision of the Municipal Court, which had been favorable to Telefónica's position (as was also the case with the first decision of the Municipal Court). At the end of the hearing, the High Court announced the Second Appellate Decision by which it reversed the second decision of the Municipal Court and ordered Telefónica to pay 644 million Czech korunas (approximately 23 million euros) to Venten and 227 million Czech korunas (approximately 8 million euros) to Lexburg, in each case plus interest.

On December 28, 2016, the decision was notified to Telefónica. Telefónica filed an extraordinary appeal, requesting the suspension of the effects of the decision.

In March 2017, Telefónica was notified of the decision of the Supreme Court, which ordered the suspension of the effects of the unfavorable decision to Telefónica issued by the High Court.

Venten and Lexburg filed with the Supreme Court a motion to partially abolish the suspension of enforceability of the Decision of the High Court in Prague. On January 17, 2018, Telefónica filed its response seeking dismissal of such motion for lack of legal basis.

On February 14, 2019, notification was given to Telefónica of the resolution of the Supreme Court which, based on the extraordinary appeal filed by Telefónica, abolished the decision of the High Court in Prague dated August 5, 2016 and remanded the case back to the High Court.

In December 2021, the High Court of Prague confirmed its appointment of an expert in order to produce a new expert report to assess the reliability of market-based price criteria used in the mandatory tender offer and further

technical issues discussed in this litigation, including a new discounted cashflow valuation of the shares of Český Telecom in 2005.

Appeal against the resolution of ANATEL to sanction Telefónica Brasil for breaches of the Fixed Telephony Regulation

In May 2018, Telefónica filed a judicial action for annulment against a resolution issued by ANATEL (the National Telecommunications Agency of Brazil) in March 2018 concluding the administrative process for determination of non-compliance with obligations (*Processo Administrativo para Apuração de Descumprimento de Obrigações* or "PADO") investigating alleged infractions of the Fixed Telephony Regulation by Telefónica Brasil.

This PADO investigation had been suspended during the negotiations of the conduct adjustment term (*Termo de Ajustamento de Conduta* or "TAC") between Telefónica and ANATEL relating to this and certain other PADO investigations. Since the negotiations concluded without agreement, the suspended PADO sanctioning procedures were reactivated and finalized.

In its resolution of March 2018, ANATEL considered that Telefónica Brasil committed several infractions, specifically those related to the inadequate notice of suspension of services to defaulting users, the terms of reactivation of services after payment of outstanding amounts by defaulting users and the disagreement with the terms of refunds claimed by users of the services.

The fine imposed by ANATEL and appealed by Telefónica Brasil is approximately 211 million Brazilian reals (approximately 38 million euros), which amounted to approximately 575 million Brazilian reals after currency value updates and accrued interest as of December 31, 2022 (approximately 103 million euros).

Telefónica Brasil has appealed the fine imposed by ANATEL based, fundamentally, on the following arguments: (i) ANATEL should have considered a smaller universe of users to determine the fine and (ii) the calculation of the fine is disproportionate and based on insufficient grounds.

Telefónica Brasil has not yet paid the fine, although Telefónica Brasil has guaranteed its payment through a guarantee insurance submitted to the court.

As of the date of these financial statements, there has been no conciliation and the proceeding is following its normal course.

ICSID Arbitration Telefónica, S.A. vs. Republic of Colombia

In the local arbitration brought by Colombia against Colombia Telecomunicaciones ("ColTel"), on July 25, 2017, the local arbitration tribunal ordered ColTel to pay 470 million euros as economic compensation for the reversion of assets related to voice services in relation to the concession granted between 1994 and 2013.

On August 29, 2017, ColTel's share capital was increased in order to make the payment ordered by the local arbitral award; Telefónica, S.A. contributed and disbursed an amount equivalent to 67.5% of the award's amount (317 million euros) and the Colombian Government contributed an amount equivalent to the remaining 32.5% (153 million euros).

On February 1, 2018, Telefónica, S.A. filed a Request for Arbitration against Colombia at the International Centre for Settlement of Investment Disputes ("ICSID"), which was formally registered on February 20, 2018.

The ICSID Court was constituted on February 26, 2019, with José Emilio Nunes Pinto as President, Horacio A. Grigera Naón appointed by Telefónica, S.A., and Yves Derains appointed by Colombia.

Colombia filed Preliminary Objections on Jurisdiction on August 5, 2019. Telefónica, S.A. responded to Colombia's objections in its Claimant's Memorial on September 23, 2019, in which it also requested that Colombia pay compensation for damages caused to Telefónica, S.A.

On October 23, 2019, Colombia submitted its Complementary Objections on Jurisdiction as well as a request for Bifurcation, to which Telefónica, S.A. responded on November 29, 2019.

On January 24, 2020, the Court dismissed the request for Bifurcation presented by Colombia, ordering the continuation of the proceeding. A decision on the merits of Telefónica, S.A.'s claim is pending.

On July 3, 2020, Colombia filed its reply to the claim filed by Telefónica before the ICSID.

On November 2, 2020, Telefónica presented its response to Colombia's reply.

After the hearing held in April 2021, on July 27, 2021 the hearing of closing arguments was held, and the parties are awaiting the issuance of the arbitration award.

Telefónica's lawsuit against Millicom International Cellular for default in the sale of Telefónica de Costa Rica

Telefónica, S.A. (Telefónica) and Millicom International Cellular, S.A. (Millicom) reached an agreement on February 20, 2019 for the purchase and sale of the entire capital stock of Telefónica de Costa Rica TC, S.A.

In March 2020, Telefónica informed Millicom that, once the pertinent regulatory authorizations had been obtained and all the other conditions established in the aforementioned agreement for the execution of the sale had been completed, the execution of the contract and the closing of the transaction should be in April 2020.

Millicom expressed its refusal to proceed with the closing, arguing that the competent Costa Rican administrative authorities had not issued the appropriate authorization.

On May 25, 2020, Telefónica filed a lawsuit against Millicom before the New York Supreme Court, considering that Millicom had breached the terms and conditions established in the sale contract, demanding compliance with the provisions of the aforementioned agreement, and compensation for all damages that this unjustified breach could cause to Telefónica.

On June 29, 2020, Millicom filed a Motion to Dismiss, to which Telefónica replied on July 8, 2020.

On August 3, 2020, Telefónica submitted an amendment to the lawsuit, removing the requirement to comply with the provisions of the sale and purchase contract and requesting only compensation for all damages that the unjustified breach of said agreement could cause to Telefónica.

On January 5, 2021, the Motion to Dismiss filed by Millicom in June 2020 was dismissed by the New York Supreme Court.

ICSID Arbitration Telefónica, S.A. vs. Republic of Peru

On February 5, 2021, Telefónica filed a request for arbitration against the Republic of Peru at the ICSID, which was formally registered on March 12, 2021.

Telefónica bases its claims on the Agreement for the Promotion and Reciprocal Protection of Investments between the Kingdom of Spain and the Republic of Peru ("APRPI") signed on November 17, 1994. Telefónica argues that the Peruvian tax administration (called Superintendencia Nacional de Aduanas y de Administración Tributaria, known as "SUNAT") and other state bodies have failed to comply with the obligations established in the APRPI, including by adopting arbitrary and discriminatory actions.

It is requested that the defendant be ordered to fully compensate Telefónica for all damages suffered.

Once the Tribunal was constituted, on February 9, 2023, Telefónica filed a request for urgent injunctive relief together with a request for injunctive relief, requesting the suspension of the administrative litigation (acción contencioso-administrativa or ACA) related to the income tax for the years 1998, 2000 and 2001, as well as the extension of the deadline for submission by Telefónica of the memorial or claim. Following response of Peru, on February 16, 2023, the Tribunal ruled to dismiss Telefónica's request for urgent injunctive relief, to establish the procedural calendar to process the request for injunctive relief and to grant Telefónica two additional weeks to file the memorial or claim.

Appeal against the ANATEL resolution on the calculation of amounts for the renewal of radio frequencies in Brazil associated with the provision of the personal mobile services (filed in 2013)

In 2013, Telefónica Brasil filed a lawsuit against the resolution of ANATEL which sets forth the calculation of the amount to be paid by Telefónica Brasil for the renewal of radio frequencies associated with the provision of personal mobile services (which has been granted to Telefónica Brasil for a period of fifteen years).

According to ANATEL the renewals, which must be carried out every two years, should be accompanied by a payment equivalent to 2% of all income derived from the provision of personal mobile services, while Telefónica

Brasil believes that the calculation must be made with respect to the income derived from voice services only, which would exclude data services and interconnection revenues.

In February 2020, Telefónica Brasil filed an appeal before the Regional Federal Court of Brasilia after obtaining an unfavorable ruling in the Court of First Instance, which considered that the criteria defended by ANATEL was the one to be followed.

As of December 31, 2022, the amount under litigation was 774 million Brazilian reais (139 million euros based on the exchange rate of such date), resulting from the method of calculation of ANATEL that has been appealed.

Appeal against the ANATEL resolution on the calculation of amounts for the renewal of radio frequencies in Brazil associated with the provision of the personal mobile services (filed in 2015)

In 2015, Telefónica Brasil filed a lawsuit against the resolution of ANATEL which sets forth the calculation of the amount to be paid by Telefónica Brasil for the renewal of radio frequencies associated with the provision of personal mobile services (which has been granted to Telefónica Brasil for a period of fifteen years).

According to ANATEL the renewals, which must be carried out every two years, should be accompanied by a payment equivalent to 2% of all income derived from the provision of personal mobile services, while Telefónica Brasil believes that the calculation must be made with respect to the income derived from voice services only, which would exclude data services and interconnection revenues.

In August 2016, Telefónica Brasil filed an appeal before the Regional Federal Court of Brasilia after obtaining an unfavorable ruling in the Court of First Instance, which considered that the criteria defended by ANATEL was the one to be followed. Pending judgment on appeal.

As of December 31, 2022, the amount under litigation was 400 million Brazilian reais (72 million euros based on the exchange rate of such date), resulting from the method of calculation of ANATEL that has been appealed.

UK High Court claim by Phones 4 U Limited against various mobile network operators and other companies, among others, Telefónica, S.A., Telefonica O2 Holdings Limited and Telefonica UK Limited

In late 2018, Phones 4U Limited (in administration) (“P4U”) commenced a claim in the English High Court in London against various mobile network operators: Everything Everywhere, Deutsche Telekom, Orange, Vodafone, Telefónica, S.A., Telefonica O2 Holdings Limited and Telefonica UK Limited (together the “Defendants”).

P4U carried on a business of selling mobile phones and connections to the public, such connections being supplied by mobile network operators including the Defendants. In 2013 and 2014, the Defendants declined to extend and / or terminated their contracts to supply connections to P4U.

P4U went into administration in September 2014.

P4U alleges that the Defendants ceased to supply connections because they had colluded between themselves in contravention of the United Kingdom and the European Union competition laws and asserts that it has a basis to claim damages for breach of competition law by all the Defendants. The Defendants deny all P4U’s allegations.

The claim commenced on December 18, 2018 by P4U. The Defendants filed their initial Defences in the course of April and May 2019, with P4U filing replies on October 18, 2019. The first case management conference took place on March 2, 2020.

The trial was held between May and July 2022. The parties are awaiting the issuance of the sentence.

b) Other proceedings

The Group is currently cooperating with governmental authorities (and, where appropriate, conducting the relevant internal investigations) regarding requests for information potentially related, directly or indirectly, to possible violations of applicable anti-corruption laws. Telefónica believes that, considering the size of the Group, any potential penalty as a result of matters relating to those specific information requests would not materially affect the Group’s financial condition.

c) Commitments

Agreement related to the Sale of Customer Relationship Management (“CRM”) Business, Atento

As a result of the sale agreement of Atento by Telefónica, announced on October 12, 2012, and ratified on December 12, 2012, both companies signed a Master Service Agreement which regulates Atento’s relationship with the Telefónica Group as a service provider for a period of nine years and which has been amended on May 16, 2014, November 8, 2016, May 11, 2018, November 28, 2019 and February 4, 2022. The term of the agreement was extended for Spain and Brazil in November 2016, for two additional years until the end of 2023, and for Latin America in February 2022, for one additional year until the end of 2022.

By virtue of this agreement, Atento became Telefónica’s preferred Contact Center and Customer Relationship Management (“CRM”) service provider, stipulating annual commitments in terms of turnover which is updated based on inflation and deflation that vary from country to country, pursuant to the volume of services Atento has been providing to the entire Group. Effective January 1, 2017, the minimum volume commitments that Telefónica must comply with have significantly decreased for Brazil and Spain. Additionally, from January 1, 2019 a new reduction of the minimum commitment has been agreed, in this case only for Spain.

Failure to meet the annual turnover commitments in principle results in the obligation to the counterparty, to pay additional amounts, which would be calculated based on the difference between the actual amount of turnover and the predetermined commitment, applying a percentage based on the Contact Center’s business margin to the final calculation.

Notwithstanding the above, as a consequence of the amendment signed with the Atento Group on May 11, 2018, from January 1, 2018 the payment obligation for failure to meet the annual turnover commitment continues to be calculated every year but will only be liquidated upon termination of the agreement. Such payment will only be due if the balance is in favor of Atento after adding certain amounts agreed between the parties and deducting an annual percentage of the Atento Group’s sales to the Telefónica Group.

The Master Agreement sets forth a reciprocal arrangement, whereby Atento assumes similar commitments to subscribe certain telecommunications services from Telefónica.

Investment Framework Agreement between the shareholders of Colombia Telecomunicaciones, S.A. ESP BIC - Sale of shares

Pursuant to the Framework Investment Agreement entered into between the shareholders of Colombia Telecomunicaciones, S.A. ESP BIC (a) if Telefónica decides to dispose or transfer of all or part of its shareholding in Colombia Telecomunicaciones, S.A. ESP BIC to third parties, Telefónica commits that: (i) the acquirer or transferee will be obliged to adhere to the Framework Investment Agreement; and (ii) that the acquirer or transferee will be obliged to present an offer to purchase all of the shares in Colombia Telecomunicaciones, S.A. ESP BIC held by the Colombian Government (that amounts to 32.5% of the share capital) at the same price and under the same terms and conditions negotiated with Telefónica and through the procedure established by Law 226 of 1995 for the disposal of shares held by public entities and, (b) if the Colombian Government transfer its shares in Colombia Telecomunicaciones, S.A. ESP BIC under certain circumstances, the Strategic Partner shall subscribe with the acquirer of the shares a new shareholders agreement which will have to be then negotiated by the parties and which, as the case may be, will include some of the rights currently held by the Colombian Government under the Framework Investment Agreement currently in force.

Agreement for the sale of the shares of Telefónica Gestión de Servicios Compartidos España, S.A.U., Telefónica Gestión de Servicios Compartidos Argentina, S.A. and T-Gestiona Servicios Contables y Capital Humano, S.A.C.

On March 1, 2016, a share purchase agreement between, on one hand, Telefónica, S.A., Telefónica Servicios Globales, S.L.U. and Telefónica Gestión de Servicios Compartidos Perú, S.A.C. (as sellers), and, on the other hand, IBM Global Services España, S.A., IBM del Perú, S.A.C., IBM Canada Limited and IBM Americas Holding, LLC (as purchasers) for the sale of the companies Telefónica Gestión de Servicios Compartidos España, S.A.U., Telefónica Gestión de Servicios Compartidos Argentina, S.A. and T-Gestiona Servicios Contables y Capital Humano, S.A.C., for a total price of approximately 22 million euros, was ratified before Notary Public. This share purchase agreement was subscribed on December 31, 2015.

Following the aforementioned share purchase agreement and in connection with the latter transaction, also, on December 31, 2015, Telefónica subscribed a master services agreement with IBM for the outsourcing of economic-financial and HR activities and functions to be provided to the Telefónica Group during a period of ten years, for a total amount of approximately 450 million euros. Most of the Telefónica Group's subsidiary companies have already adhered to that master services agreement.

On March 31, 2021 and March 31, 2022 the master services agreement with IBM for the outsourcing of economic-financial and HR activities and functions to be provided to the Telefónica Group was amended. By virtue of these amendments the term may be extended for those adhered companies that decide to extend their services beyond the initial term.

In addition, on July 29, 2022 a new amendment was executed by virtue of which the term may be extended for those adhered companies in Latinoamérica that decide to extend some of their services.

Commitments derived from the agreements reached for the acquisition of football (soccer) related rights between Telefónica (through its affiliate Telefónica Audiovisual Digital, S.L.U.) and LaLiga, UEFA and RFEF

On June 25, 2018, Telefónica was provisionally awarded with the broadcasting rights for all football (soccer) matches of the Spanish First Division Football League National Championship in the residential subscribers market for exploitation on pay television for the 2019-2022 cycle (packages 4 and 5 of the auction called by the Professional Football League). The definitive agreements were signed on July 5, 2018.

The award was granted for a total amount of 2,940 million euros, at an identical price of 980 million euros for each of the three seasons, which represents a slight decrease compared to the last season of the previous cycle. Telefónica, as the operator of these broadcasting rights for the 2019-2022 cycle, has the right to decide, design and develop the broadcasting content, which carried the Movistar hallmark for the 2019-2020 season.

On December 21, 2018, Telefónica was provisionally awarded with the broadcasting rights for all football (soccer) matches of the Spanish Second Division Football League National Championship in the residential subscribers market for exploitation on pay television for the 2019-2022 cycle (package 6 of the auction called by the Professional Football League). No other bids were submitted for such package during the first round of the auction called by the Professional Football League. The award was granted for a total amount of 105 million euros (i.e., 35 million euros for each of the three seasons).

On January 11, 2019 the definitive agreement on such broadcasting rights (package 6) was signed.

On July 2, 2020 Telefónica signed an agreement for acquiring the exclusive media rights in Spain of UEFA Champions League and UEFA Europa League, as well as the UEFA Europa Conference League (a new competition to be separated from the UEFA Europa League) and UEFA Youth League, for the next cycle comprising seasons 2021/22, 2022/23 and 2023/2024, after the expiration of the agreement with Mediapro of June 28, 2018 for previous cycle 2018/2019 to 2020/2021.

The agreement guarantees Telefónica all media rights with respect to the main European football competitions for all its customers, both residential and horecas (hotels, restaurants, cafes, etc.).

The direct acquisition from UEFA of this "premium" content will also allow Telefónica to continue designing and selling its own produced channels and content with the best European football that could be, likewise, accessible to other operators in the market interested in this content.

The total award price for all competitions amounted to 975 million euros (i.e. 325 million euros for each of the seasons 2021/22, 2022/23 and 2023/2024) which is less than the license fees paid for the previous cycle and without any year-to-year increase.

On December 13, 2021, Telefónica was provisionally awarded the exclusive broadcasting rights of five matches per matchday of the Campeonato Nacional de Liga de Primera División ("LaLiga"), for pay television in the residential market, in Spain. Telefónica received the first pick in 18 matchdays of each season and second pick in 17 matchdays, including "El Clásico" of the second round (Option D bis, Lot D.1 bis).

Likewise, Telefónica was awarded the exclusive broadcasting rights of three matchdays, which contain ten matches each matchday, including matches of Real Madrid C.F., F.C. Barcelona and Club Atlético de Madrid against the six first classified of the previous season; and Valencia C.F., Athletic Club de Bilbao or Real Betis Balompié, if they were not among the aforementioned first classified (Option D bis, Lot D.3 bis).

The award includes the cycle 2022/2023 to 2026/2027 although the 2025/2026 and 2026/2027 seasons are subject to the CNMC lifting or modifying the resolution that limits the maximum duration of the contracts entered into by Telefónica for the acquisition of sports rights (Expte. VC/0612/14).

The award has been made at a price of 520 million euros for each of the seasons.

The award was subject to the execution of an agreement between Telefónica and LaLiga with the remaining terms and requirements established in the LaLiga tender, which was signed on January 19, 2022.

On March 28, 2022, Telefónica entered into an agreement with the company DAZN for the distribution of the so-called DAZN LaLiga Package. Such package includes the remaining five football matches per match-weekend of the Spanish First Division Football Championship, in 35 out of 38 match-weekends for exploitation on pay television for residential subscribers in Spain (Option D bis, Package D.2 bis).

This is a non-exclusive agreement for five seasons, from 2022/2023 to 2026/2027. The agreed value amounts 280 million euros for each of the seasons.

In addition, on July 29, 2022, Telefónica signed a new contract with LaLiga for the non-exclusive broadcasting of the channel that broadcasts matches of Second Division of National Football Championship League for seasons 2022/2023, 2023/2024 and 2024/2025, with Telefónica's unilateral option to extend for two additional seasons, with a variable cost that amounts to approximately 16 million euros per season.

Similarly, on August 4, 2022, a contract was formalized with LaLiga for the non-exclusive broadcast of the LaLiga TV Bar Channel for non-residential subscribers for the 2022/2023 season with a minimum guarantee of 29 million euros, being the final price variable.

On November 2, 2022, Telefonica was also awarded by Real Federacion Española de fútbol (RFEF) exclusive pay television rights of Copa del Rey Competiton and Supercopa de España for seasons 2022/2023, 2023/2024 and 2024/2025.

Wholesale Access Services Agreement with AT&T Mexico

On November 21, 2019, Pegaso PCS, S.A. de C.V. ("Telefónica México") and AT&T Comunicaciones Digitales, S. de R.L. de C.V. ("AT&T Mexico") entered into a Wholesale Access Services Agreement ("Wholesale Agreement"), under which AT&T Mexico agreed to provide wholesale wireless access to Telefónica México on 3G, 4G and any other future technology available in Mexico.

The Wholesale Agreement has a minimum duration of eight years, renewable for additional consecutive periods of three years. Such Wholesale Agreement establishes a gradual migration of Telefónica México's traffic to AT&T Mexico's access network over the first three years of the agreement.

As set forth in the Wholesale Agreement such migration was completed during the first half of 2022. As a result, Telefónica México's wireless access infrastructure was turned off and Telefónica México no longer uses the licensed spectrum that it used in the past to operate its network.

Agreement to share network infrastructure between Telefônica Brasil (VIVO) and TIM.

On December 19, 2019 Telefônica Brasil S.A. and TIM S.A. executed two agreements for the share of 2G, 3G and 4G mobile network infrastructure. Both companies reiterate that they will preserve their commercial and customer management autonomy, regardless of any infrastructure sharing agreement.

The agreements cover the following matters:

1. 2G network Sharing: to be implemented in areas where both operators are present, so that the operator reminiscent will provide 2G mobile connectivity services to the Vivo and TIM customer base, resulting in the disconnection of overlapping sites and therefore achieving cost reduction and the optimization of spectrum use.
2. 3G and 4G network Sharing: covering only cities with less than 30 thousand inhabitants with the aim of sharing 4G and 3G network in cities where only one operator is present (coverage expansion) and where both already provide services (network consolidation).

Both agreements were approved by the Telecommunications and Competition regulatory authorities ("Agência Nacional de Telecomunicações" - ANATEL and "Conselho Administrativo de Defesa Econômica" - CADE).

Contracts for the provision of IT services with Nabiax

In 2019 Telefónica, S.A. signed an agreement for the sale of a portfolio of eleven data center businesses to a company (hereinafter "Nabiax") controlled by Asterion Industrial Partners SGEIC, S.A.

At the same time as this sale, agreements were entered into with Nabiax to provide housing services to the Telefónica Group, allowing Telefónica to continue providing housing services to its customers, in accordance with its previous commitments. Such service provision agreements have an initial term of ten years and include minimum consumption commitments in terms of capacity. These commitments are consistent with the Group's expected consumption volumes, while prices are subject to review mechanisms based on inflation and market reality.

On May 7, 2021, Asterion Industrial Partners SGEIC, S.A. and Telefónica Infra (T. Infra), the infrastructure unit of the Telefónica Group, reached an agreement for the contribution to Nabiax of four additional data centers owned by the Telefónica Group (two of them located in Spain and two in Chile). In exchange for the contribution of these four data centers, T. Infra will receive a 20% equity stake in Nabiax. Once the relevant authorizations and other conditions precedent to the contribution of the two data centers located in Spain were obtained, the partial closing of the transaction took place as of July 21, 2021, whereby Telefónica Group contributed those data centers to Nabiax, with T. Infra receiving in exchange a 13.94% stake in Nabiax at this stage. The agreement was complemented by the signing of a contract for the provision to Telefónica of housing services from those two data centers under terms and conditions equivalent to those established in the transaction executed in 2019, for an initial period of ten years.

Once the conditions related to the contribution of the two data centers located in Chile were fulfilled, on May 24, 2022, the complete closing of the transaction took place, and T. Infra reached a 20% stake in Nabiax (see Note 10). The agreement was complemented by the signing of a contract for the provision to Telefónica of housing services from those two data centers under terms and conditions equivalent to those established in the transaction executed in 2019, for an initial period ending in 2031.

50:50 joint venture with Liberty Global for the combination of both groups' businesses in the United Kingdom

On May 7, 2020, Telefónica agreed to enter into a joint venture with Liberty Global plc ("Liberty Global") pursuant to a contribution agreement (as amended, the "Contribution Agreement") between Telefónica, Telefonica O2 Holdings Limited, Liberty Global, Liberty Global Europe 2 Limited and a newly formed entity of which, after closing, each of Telefónica and Liberty Global would hold 50% of its share capital named VMED O2 UK Limited.

After having obtained the clearance from the Competition and Market Authority (the antitrust authority in the UK) to complete this transaction and having fulfilled all the other pre-closing conditions included in the Contribution Agreement, the transaction was completed on June 1, 2021. From such date, Telefónica and Liberty Global each hold an equal number of shares in VMED O2 UK Limited; after: (i) Telefónica having contributed to VMED O2 UK Limited its O2 mobile business in the United Kingdom and (ii) Liberty Global having contributed its Virgin Media business in the United Kingdom to VMED O2 UK Limited.

The corporate governance of VMED O2 UK Limited is regulated by a shareholders' agreement, which was entered into by the parties to the Contribution Agreement on June 1, 2021 (the "Shareholders' Agreement").

On the date of closing of the transaction, Telefónica, Liberty Global, and certain companies belonging to each shareholder's corporate group entered into certain services, reverse services, licensing and data protection agreements with VMED O2 UK Limited and certain entities belonging to the VMED O2 UK Limited group. In particular, Telefónica and Liberty Global agreed that each shareholder's group would provide certain services, either on a transitional or ongoing basis to VMED O2 UK Limited and its group and that, for a limited period of time, VMED O2 UK Limited would also provide certain reverse services to specific companies belonging to the corporate group of each of its shareholders.

Pursuant to the terms of the above referred services agreements, the transitional services that are to be provided by the Telefónica Group to VMED O2 UK Limited shall be provided for terms ranging from 7 to 24 months while the ongoing services that are to be provided by the Telefónica Group to VMED O2 UK Limited will be provided for periods of two to six years, depending on the service. The services provided by the Telefonica Group to VMED O2 UK Limited consist primarily of technology and telecommunication services that will be used by or will otherwise benefit VMED O2 UK Limited. In addition to providing VMED O2 UK Limited with such services, the mobile operators of the Telefonica Group and VMED O2 UK Limited will maintain their roaming commercial relationships in order to reciprocally provide roaming services for their respective customers.

Likewise, as of closing of the transaction Telefónica granted certain trademark license agreements to VMED O2 UK Limited (the “VMED O2 UK Limited Trademark Licenses”). Pursuant to the VMED O2 UK Limited Trademark Licenses, Telefonica Group licensed the use of Telefónica and O2 brand rights to VMED O2 UK Limited.

Purchase Agreement for Acquisition of UPI Mobile Assets of Oi Group

On January 28, 2021, Telefónica Brasil executed the Purchase and Sale Agreement of Shares and Other Covenants (the “Oi Agreement”), by and among Oi Móvel SA - In Judicial Recovery, as “Seller”, Telefónica Brasil, Tim S.A. and Claro S.A., as “Buyers”, and Oi S.A. - In Judicial Recovery and Telemar Norte Leste S.A. - In Judicial Recovery, as intervening parties and guarantors of the seller’s obligations.

On April 20, 2022, the closing of the transaction related to the purchase agreement for the acquisition of the assets of Oi Group's mobile business operations (the “UPI Mobile Assets”) took place, and Telefónica Brasil acquired, on such date, all the shares of Garliava RJ Infraestrutura e Redes de Telecomunicações S.A. (Garliava), a special purpose company, to which the mobile assets of Oi Group assigned to Telefónica Brasil had been contributed under the segregation plan stated in the Oi Agreement.

Telefónica Brasil thus acquired its share of mobile assets of the Oi Group for an amount of 5,373 million Brazilian reais (approximately 1,063 million euros at the exchange rate at such date), having paid, on such day, the amount of 4,885 million Brazilian reais (approximately 972 million euros). The remaining amount, equivalent to 10% of the payment made on that date, was withheld and its release is currently subject to certain ongoing discussions regarding price adjustments, as provided for in the Oi Agreement.

Likewise, on such date, Telefónica Brasil: (i) committed to an additional payment of 110 million Brazilian reais (approximately 23 million euros) of which 40 million Brazilian reais were paid at that date (approximately 8 million euros), subject to the fulfilment of certain targets by Oi; (ii) made a payment of approximately 148 million Brazilian reais (approximately 29 million euros) for certain transition services to be provided by Oi to Garliava; and (iii) entered into a take-or-pay data transmission capacity agreement, with a net present value of 179 million Brazilian reais (approximately 35 million euros), to be paid in monthly installments during a period of 10 years.

The mobile assets of Oi Group finally assigned to Telefónica Brasil were the following:

- a. Customers: approximately 12.5 million (equivalent to 30% of the total customer base of the mobile assets of Oi Group) – according to ANATEL’s February 2022 data;
- b. Spectrum: 43MHz as national population-weighted average (46% of the radiofrequency of the mobile assets of Oi Group); and
- c. Infrastructure: contracts for the use of approximately 2.7 thousand sites of mobile access (corresponding to 19% of the sites of the mobile assets of Oi Group).

All commitments assumed were duly submitted to ANATEL and CADE during 2022.

On October 3, 2022, Telefónica Brasil initiated an arbitration procedure against Oi S.A. – In Judicial Recovery (“Seller”), pursuant to the terms of the Oi Agreement, alleging manifest breach by Seller of certain terms of the Oi Agreement, after the exchange of notices about the post-closing price adjustment between Buyers and Seller, upon the competent request of arbitration filed with the Market Arbitration Chamber.

On February 1, 2023, Telefónica Brasil's Extraordinary Shareholders' Meeting was held and Garliava’s merger into Telefónica Brasil was approved, subject to prior approval from ANATEL and the conclusion of certain systemic operations. Once such conditions are fulfilled, Telefónica Brasil’s Board of Directors will convene a new meeting to verify the accomplishment of such conditions and to give effects to said merger.

Investment Agreement with Allianz and Telefónica Germany

On October 29, 2020, Telefónica Infra Germany GmbH (“TEF Infra Germany”, a subsidiary indirectly wholly-owned by Telefónica through Telefónica Infra, S.L.U.) entered into an investment agreement (and related contracts, including a partners’ agreement which sets forth the principles of corporate governance of the joint venture) with several entities belonging to the Allianz Group (“Allianz”) and Telefónica Germany 1. Beteiligungsgesellschaft mbH (a subsidiary wholly-owned by Telefónica Germany GmbH & Co. OHG) (“TEF Germany”) for the creation of a joint venture to deploy Fiber-to-the-Home (FTTH) in Germany, pursuant to which TEF Infra Germany and TEF Germany conditionally agreed to invest up to 500 million euros equity in total (400 million euros by TEF Infra Germany and

100 million euros by TEF Germany) and Allianz conditionally agreed to invest up to 1,000 million euros through different sources of funding over a six year period.

The closing of the transaction and the acquisition of the joint control took place on December 18, 2020. The registration of Allianz and TEF Germany as limited partners of the joint venture in the German commercial registry occurred on January 21, 2021. After the closing of the transaction, the Allianz Group and the Telefónica Group each holds 50% in the joint venture under a co-control governance model. Telefónica Group's ownership is held through TEF Infra Germany holding 40% and TEF Germany holding a 10% stake.

New long-term master services agreement in the United Kingdom

On January 7, 2021, each of Telefónica U.K. and Vodafone U.K. entered into new Master Services Agreements with Cornerstone Telecommunications Infrastructure Limited ("CTIL"), their passive tower network infrastructure partnership which is 50:50 jointly owned and operated by the two operators. The new agreements came into effect on January 1, 2021, with initial terms of 8 years, with three additional 8-year renewal periods.

CTIL was formed in 2012 through the consolidation of both Telefónica U.K. and Vodafone U.K.'s existing basic network infrastructure, including towers and masts, which were transferred to the joint operation. CTIL currently operates c.14,200 macro sites with a 2.0x tenancy ratio (including active sharing) and c.1,400 micro sites. CTIL also provides management services for the anchor tenants for a further c.5,100 third party sites where their active equipment is deployed. Telefónica's stake in CTIL is currently held through VMED O2 UK Limited (see Note 10), the joint venture between Telefonica and Liberty Global plc in the United Kingdom.

The new agreements do not materially impact existing network agreements and will continue to allow CTIL to primarily serve its shareholders as well as some third parties.

Transaction between Colombia Telecomunicaciones S.A. ESP BIC and Kohlberg Kravis Roberts ("KKR")

On July 16, 2021, Colombia Telecomunicaciones S.A. ESP BIC and KKR entered into an agreement to sign the following contracts:

(i) An assets purchase agreement for the fiber optic assets owned by Colombia Telecomunicaciones S.A. ESP BIC with a Colombian company controlled by KKR (InfraCo, SpA), in consideration for an initial payment of 320 million U.S. dollars, which may be subject to post-closing adjustments under usual conditions for this type of operation. As well as a subsequent payment, consisting of the possibility of receiving a higher consideration from its result in network deployment activities, for an amount of up to an additional 100 million U.S. dollars.

(ii) A contract through which Colombia Telecomunicaciones S.A. ESP BIC will acquire a 40% stake in a Spanish company controlled by KKR, which it holds the remaining 60%. The Colombia Telecomunicaciones S.A. ESP BIC's contribution would be a portion of the consideration received from assets purchase agreement for the fiber optic assets.

(iii) Several commercial contracts between Colombia Telecomunicaciones S.A. ESP BIC and InfraCo, SpA for the provision of wholesale connectivity services by InfraCo, SpA to Colombia Telecomunicaciones S.A. ESP BIC, deployment of fiber optic network and other related services.

The signing of the contracts of numerals (i) and (iii), as well as the execution of the aforementioned operations contracts, was subject to the respective contractual provisions and to the obtaining of the necessary regulatory authorizations.

On January 11, 2022, after obtaining the necessary regulatory authorizations and meeting certain agreed conditions, the transaction was executed. Therefore, Colombia Telecomunicaciones S.A. ESP BIC executed the sale of fiber optic assets to Onnet Fibra Colombia S.A.S. ("Onnet"), a company with which it also entered into a series of commercial contracts by virtue of which (i) Onnet will provide wholesale connectivity services to Colombia Telecomunicaciones S.A. ESP BIC, and (ii) Colombia Telecomunicaciones S.A. ESP BIC will provide to Onnet fiber optic network deployment services and other related services. Simultaneously, Colombia Telecomunicaciones S.A. ESP BIC acquired shares equivalent to a 40% in Alamo HoldCo S.L., a Spanish company that owns 100% of Onnet's shares (see Note 10).

Agreement for the purchase of 40% of the share capital of Telxius Telecom, S.A.

On February 1, 2022, Telefónica's subsidiary, Pontel Participaciones, S.L. ("Pontel"), a company which is held 83.35% by Telefónica and 16.65% by Pontegadea Inversiones, S.L. ("Pontegadea"), reached an agreement with Taurus Bidco S.à r.l. ("Taurus", a company managed by KKR) for the purchase of 40% of the share capital of Telxius Telecom, S.A. ("Telxius"), held by Taurus, for an estimated amount of 215.7 million euros, being the referred price subject to, among others, adjustments derived from the sale of the towers business to American Tower.

On January 18, 2023, after obtaining the necessary regulatory and competition authorizations, the transaction was completed. (See Note 31).

As a result of the transaction, Pontel, which prior to the closing of the transaction held the remaining 60% of the share capital of Telxius, has become the sole shareholder of this company. Pontegadea has increase its holding in Pontel to 30% and Telefónica holds a 70% stake. Thus, in terms of indirect holding in Telxius, Pontegadea has increased its holding from 9.99% to 30% and Telefónica from 50.01% to 70%.

Agreement reached between Telefónica España Filiales, S.A.U. ("Telefónica España Filiales"), T. Infra, Vauban and Crédit Agricole Assurances for the establishment of Bluevia Fibra

On July 25, 2022, Telefónica España Filiales S.A.U, Telefónica Infra S.L.U. (T. Infra) and the consortium formed by Vauban Infrastructure Partners ("Vauban") and Crédit Agricole Assurances ("CAA") reached an agreement for the establishment of a company, Bluevia Fibra, S.L. ("Bluevia"), whose corporate purpose is the deployment and commercialization of a fiber-to-the-home (FTTH) network mainly in rural areas in Spain.

Once the relevant regulatory authorizations were obtained, the closing of the transaction took place on December 20, 2022. After closing, the Telefónica Group holds 55% of the capital of Bluevia (30% through Telefónica España Filiales and 25% through T. Infra), with Vauban/CAA holding the remaining 45%. At closing, Bluevia purchased from Telefónica España 3.9 million already passed real estate units, and agreed to deploy 1.1 million additional units over the next two years, reaching a total footprint of 5 million passed real estate units. The 3.9 million already passed real estate units acquired by Bluevia represent 14% of Telefónica's FTTH network in Spain, with Telefónica España retaining ownership of the remainder of the network. In addition, as part of the transaction, the Telefónica Group has entered into a series of service provision agreements with Bluevia which entail the mutual provision and receipt of services by/to Telefonica Group and Bluevia. As part of the transaction Telefonica Group has contributed equity funds to Bluevia in the amount of approximately 1,247 million euros and the Vauban/CAA consortium has acquired 45% of Bluevia from Telefónica España for 1,021 million euros in cash (see Note 2).

Agreement reached by T. Infra, Liberty Global and InfraVia for the establishment of a fiber-to-the-home (FTTH) joint venture in the United Kingdom

On July 29, 2022, T. Infra, Liberty Global plc ("Liberty Global") and InfraVia Capital Partners ("InfraVia") reached an agreement for the establishment of a joint venture, "nexfibre", for the deployment of fiber-to-the-home (FTTH) to 5 million homes in the United Kingdom not reached by VMED O2 UK Limited's (VMO2) network, with potential for expansion to an additional 2 million homes. The fiber network will offer wholesale FTTH access to telecommunications service providers, with VMO2 acting as the lead customer, as well as providing a range of technical services.

Once the relevant regulatory authorizations were obtained and the other conditions were fulfilled, the closing of the transaction took place on December 15, 2022. After closing, Liberty Global and T. Infra participate by halves in a joint vehicle that holds a 50% interest in nexfibre, with InfraVia owning the remaining 50%.

The business plan for the initial rollout to 5 million homes envisages an investment of approximately 4,500 million pounds (approximately 5,072 million euros at the exchange rate at December 31, 2022). The three partners have funded their pro-rata share of equity funding for the construction, totaling up to 1,400 million pounds (approximately 1,578 million euros at the exchange rate at December 31, 2022). In addition, nexfibre has entered into a facilities agreement with a consortium of banks for an amount of up to 3,300 million pounds (approximately 3,719 million euros at the exchange rate at December 31, 2022). As part of the transaction, InfraVia has made and will continue to make certain payments to Liberty Global and T. Infra, a portion of which will be linked to the progress of the construction of the network.

d) Environmental and climate change matters

Environmental management of the Group

Commitment to protect the environment is part of the Company's general strategy and is the responsibility of the Board of Directors. The performance in this area is regularly supervised by the Board's Sustainability Committee and the Responsible Business Office, made up of the global areas which execute that strategy alongside the business units.

The Group has global environmental and energy management policies, and externally certified environmental management systems in accordance with ISO 14001 in all Group companies. The environment is a central issue throughout the Company, involving both operational and management areas as well as business and innovation areas.

Managing environmental impact and energy consumption is a strategic priority and carbon reduction targets are part of the variable remuneration of all Company employees, including the Senior Management. In addition, Telefónica, S.A.'s long-term share-based incentive plans 2021-2025 (see Note 27) include CO2 Emission Neutralization targets, in line with the target set by the Company.

Climate change and energy

In managing climate change, Telefónica identifies adaptation and mitigation measures and new opportunities for growth and development. To analyse climate change risks, the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD) are followed, identifying short, medium and long-term risks. Specifically, physical and transition risks identify the importance of reducing GHG emissions and energy consumption, and are managed in accordance with Telefónica's decarbonization roadmap. Opportunities, meanwhile, identify different lines on which Telefónica seeks to develop its activity through the Energy Efficiency Plan and the Renewable Energy Plan, the Sustainable Finance Framework and the development of new products and services.

All of this is contained in the Climate Action Plan, which defines Telefónica's decarbonization process to achieve net zero emissions by 2040, which involves minimising its own emissions (Scope 1 and 2) and those of the value chain (Scope 3).

For Telefónica, it is a priority to keep energy consumption stable despite the sharp increase in the digitalization of society and, therefore, in data traffic flowing through the networks. The Group's Energy Efficiency Plan therefore includes initiatives such as network modernization, for example, with investments in fibre optics (more efficient) replacing the copper network, or 5G, and specific projects such as climate modernization.

The Company's decarbonization requires not only maximum efficiency in the use of energy, but also that it comes from renewable sources. Telefónica's Renewable Energy Plan contemplates different solutions such as self-generation, the purchase of renewable electricity with a guarantee of origin and long-term power purchase agreements (PPAs, see Note 26), and prioritizes non-conventional renewable electricity sources, defines the strategy that allows us to reduce operating costs and reduces exposure to fluctuations in electricity prices.

Most of the electricity consumption in own facilities come from renewable sources. In Brazil, it is worth highlighting the continuation of the distributed generation project. In Spain, the four long-term renewable power purchase agreements (PPAs) signed for the period 2022-2031 have come into operation, equivalent to 482 GWh per year for 10 years. These new agreements follow on from the one signed in 2020, enabling Telefónica to achieve a total of 582 GWh of renewable electricity covered by PPAs in Telefónica Spain. In October 2022, Telefonica Germany concluded a PPA with an energy supplier which provides long-term energy security and energy supply with renewable energies from an offshore wind farm over the period from 2025 to 2035. In February 2023 Telefonica Germany has concluded a further PPA for the period 2025 to 2040.

In terms of renewable self-generation, the Group has photovoltaic self-generation systems in several buildings in Spain, with solar production for self-consumption (without surplus to the grid) under two models: the first with its own CapEx and the second under a service model, where the electricity generated is paid for at a lower market value.

As part of its net zero objective, Telefónica supports projects that absorb or reduce carbon emissions in order to offset and neutralize emissions that are not reduced. To this end, it purchases carbon credits from projects under the highest standards in certain regions where Telefónica operates.

The Telefónica Group contracted, both locally and globally, several insurance programs in order to mitigate the possible occurrence of an incident stemming from the risks of environmental liability and/or natural disasters, to guarantee the continuity of its activity.

Sustainable financing

Sustainable financing is a key tool for supporting the transformation of the business through investment in projects with a positive environmental and social impact. In 2018, the Company published its Sustainable Financing Framework. This was updated in January 2021 and, in both cases, was endorsed by a second party opinion from Sustainalytics. The framework is linked to the United Nations Sustainable Development Goals and aligned with the Green Bond, Social Bond and Sustainable Bond Principles of the International Capital Market Association (ICMA).

Telefónica was the first issuer of senior green bonds and hybrid instruments (green and sustainable) in the telecommunications sector. The funds that were obtained have been allocated to projects focused on switching our network from copper to fiber, which is more efficient and suffers fewer faults; the rollout and improvement of mobile connectivity in rural areas; and the promotion of entrepreneurship and job creation through investments in start-ups.

In addition to senior green bonds and hybrid instruments, the Group use other sustainable bank financing tools, such as loans and credits linked to sustainability objectives that make it possible to progress steadily towards such important corporate targets as reducing emissions and gender equality. Also in this case, the main syndicated loan of the Telefónica Group is linked to sustainability criteria in line with the corporate Sustainability-linked Loan Framework, which was drawn up in late 2021 with a second opinion from Sustainalytics.

In 2022, the Company maintained an active presence in the capital market through several issuances. These included its first sustainable senior bond issuance for 1,000 million euros in May (see Appendix III) with a term of nine years. The funds obtained from this issuance will be allocated to projects related to transformation of the telecommunications network via the rollout of fiber optics and 5G technology, as well as social projects aimed at promoting inclusive connectivity, entrepreneurship and job creation.

The Company's second hybrid green instrument issuance took place in November for the value of 750 million euros (see Note 17.c), with the first redemption date at six years. In this case, the investment from funds will be used to switch off obsolete equipment and transform mobile infrastructures through energy efficiency projects.

Despite the market instability, these two issues were well received by the market with a broadly international and diversified investor base.

Already in January 2023, a new green hybrid instrument has been issued for an amount of 1,000 million euros has been carried out (see Note 31).

Telefónica Brazil carried out its first issuance of sustainability-linked bonds, to an aggregated amount of 3,500 million reais (equivalent to 628 million euros at closing 2022 exchange rate, see Appendix III). Financing costs are linked to compliance with sustainability targets between now and 2027.

In terms of bank financing, the Telefónica Group's main syndicated loan was refinanced at a corporate level in early 2022 for the amount of 5,500 million euros (see Note 18 and Appendix V), the interest applied to which will be linked to compliance with sustainability targets. The deal was supported by nearly 30 entities.

Committed lines and bilateral financing operations were also carried out during the year with numerous financial entities, obtaining a total volume of 3,864 million euros at the close of 2022, the interest applied to which is also linked to compliance with sustainability targets.

Overall, as at December 31, 2022, the Group's sustainable financing amounts to 15,956 million euros, broken down as follows:

December 31, 2022	
Millions of euros	Sustainable financing
Financial liabilities	2,842
Senior green bond of Telefónica Emisiones (Appendix III)	1,000
Senior sustainable bond of Telefónica Emisiones (Appendix III)	1,000
Sustainability linked bonds of Telefónica Brazil (Appendix III)	628
Sustainability linked facilities of Colombia Telecomunicaciones	214
Undated deeply subordinated securities (hybrid instruments) (Note 17.c)	3,000
Undrawn facilities at December 31, 2022 (Note 18)	10,114
Sustainability linked facility of Telefónica, S.A.	5,500
Sustainability linked facility of Telefonica Germany	750
Sustainability linked bilateral facilities	3,864
Total	15,956

e) Auditors' fees

The services commissioned to the auditors meet the independence requirements stipulated by the Spanish Audit Law 22/2015, July 20, the US SEC rules and the Public Company Accounting Oversight Board (PCAOB).

The expenses accrued by the Group, in respect of the fees for services rendered to the various member firms of the PwC network, of which PricewaterhouseCoopers Auditores, S.L. ("PwC Auditores, S.L."), the auditors of Telefónica, S.A., forms part, amounted to 20.07 million euros and 19.99 million euros in 2022 and 2021, respectively.

The detail of these amounts is as follows:

Millions of euros	2022			2021		
	PwC Auditores, S.L.	Other PwC	Total	PwC Auditores, S.L.	Other PwC	Total
Audit services	7.73	10.98	18.71	7.39	10.97	18.36
Audit-related services	0.99	0.37	1.36	0.82	0.81	1.63
Total	8.72	11.35	20.07	8.21	11.78	19.99

Audit services includes audit fees of Telefónica, S.A. individual and consolidated financial statements and its subsidiaries, as well as reviews of interim financial statements. These Audit services also incorporate the integrated audits of the financial statements for the annual report Form 20-F to file with the US SEC for those entities currently required including, therefore, the internal control audit over the financial information to comply with the requirements of the Sarbanes-Oxley 2002 Act (Section 404). Also includes audit work related with legal and regulatory requirements that the auditor must necessarily perform in their function and audit and reviews of financial statements in connection with financial transactions.

Audit-related services: services related to the review of the information required by regulatory authorities, agreed financial reporting procedures not requested by legal or regulatory bodies, the issuance of comfort letters, the report on the information relating to the system of internal control over financial reporting (ICFR) and the verification of the non-financial information in the annual reports.

During the years 2022 and 2021, the Principal Auditor has not performed other services than the Audit services or the Audit-related services in the Group.

PwC Auditores, S.L., has provided the following services to the Group during the years 2022 and 2021: the individual and consolidated financial statements audit, reviews of interim financial statements, the integrated audit of the financial statements for the annual report Form 20-F to file with the US SEC, the internal control audit over the financial information to comply with the requirements of the Sarbanes-Oxley 2002 Act (Section 404), the issuance of comfort letters, agreed financial reporting procedures and the verification of the non-financial information in the annual reports.

The expenses accrued to Other Audit Firms, other than those integrated in the international PwC network, that have provided audit services to companies included in the consolidation of the Group for the year 2022 have amounted to a total of 1.46 million euros (1.58 million euros in 2021), the detail of the audit services corresponds to 0.83 million euros (0.55 million euros in 2021).

f) Trade and other guarantees

The Company is required to issue trade guarantees and deposits for concession and spectrum tender bids (see Note 19) and in the ordinary course of its business. No significant additional liabilities in the accompanying consolidated financial statements are expected to arise from guarantees and deposits issued.

g) Directors' and Senior Executives' compensation and other benefits

The compensation of the members of Telefónica's Board of Directors is governed by article 35 of the Company's By-Laws, which provides that the annual amount of the compensation to be paid thereby to all of the Directors in their capacity as such, i.e., as members of the Board of Directors and for the performance of the duty of supervision and collective decision-making inherent in such body, shall be fixed by the shareholders at the General Shareholders' Meeting. The Board of Directors shall determine the exact amount to be paid within such limit and the distribution thereof among the Directors, taking into account the duties and responsibilities assigned to each Director, their membership on Committees within the Board of Directors and other objective circumstances that it deems relevant. Furthermore, Executive Directors shall receive such compensation as the Board determines for the performance of executive duties delegated or entrusted to them by the Board of Directors. Such compensation shall conform to the Director compensation policy approved by the shareholders at the General Shareholders' Meeting.

In accordance with the foregoing, the shareholders acting at the Ordinary General Shareholders' Meeting held on April 11, 2003 set at 6 million euros the maximum amount of annual gross compensation to be received by the Board of Directors as a fixed allotment and as attendance fees for attending the meetings of the Advisory or Control Committees of the Board of Directors. Thus, as regards fiscal year 2022, the total amount of compensation accrued by the Directors of Telefónica, in their capacity as such, was 2,851,801 euros for the fixed allocation and for attendance fees.

The compensation of the Directors of Telefónica in their capacity as members of the Board of Directors, of the Executive Commission and/or of the Advisory or Control Committees consists of a fixed amount payable monthly and of attendance fees for attending the meetings of the Advisory or Control Committees.

Set forth below are the amounts established in fiscal year 2022 as fixed amounts for belonging to the Board of Directors, the Executive Commission and the Advisory or Control Committees of Telefónica and the attendance fees for attending meetings of the Advisory or Control Committees of the Board of Directors:

Compensation of the Board of Directors and of the Committees thereof

Amounts in euros			
Position	Board of Directors	Executive Commission	Advisory or Control Committees ⁽¹⁾
Chairman	240,000	80,000	22,400
Vice chairman	200,000	80,000	—
Executive Member	—	—	—
Proprietary Member	120,000	80,000	11,200
Independent Member	120,000	80,000	11,200
Other external	120,000	80,000	11,200

⁽¹⁾ In addition, the amount of the attendance fee for each of the meetings of the Advisory or Control Committees is 1,000 euros.

In this regard, it is noted that the Executive Chairman, Mr. José María Álvarez-Pallete López, waived the receipt of the above amounts (i.e., 240,000 euros as Chairman of the Board of Directors and 80,000 euros as Chairman of the Executive Commission).

Likewise, the fixed remuneration of 1,923,100 euros established for the 2023 financial year related to executive roles carried out by Executive Chairman, Mr. José María Álvarez-Pallete López is equal to that received in the

previous seven years (i.e. 2022, 2021, 2020, 2019, 2018, 2017 and 2016), which was set in his capacity as Chief Operating Officer, remaining invariably after his appointment as Chairman in 2016.

The fixed remuneration, for his executive roles, of 1,600,000 euros that the Chief Operating Officer (C.O.O.), Mr. Ángel Vilá Boix, has established for the 2023 financial year is equal to the one received in the years 2022, 2021, 2020 and 2019.

Individualized description

Appendix II provides an individual breakdown by item of the compensation and benefits that the members of the Board of Directors and of the Senior Management of the Company have accrued and/or received from Telefónica, S.A. and from other companies of the Telefónica Group during fiscal year 2022. Likewise, the compensation and benefits accrued and/or received, during such year, by the members of the Company's Senior Management are broken down.

Note 30. Operations classified as held for sale

The breakdown of non-current assets and disposal groups held for sale and liabilities associated at December 31, 2022 and December 31, 2021 is as follows:

Millions of euros	12/31/2022	12/31/2021
Telefónica Móviles El Salvador	—	253
Fiber optic assets in Colombia	—	57
Other assets	7	48
Non-current assets and disposal groups held for sale	7	358

Millions of euros	12/31/2022	12/31/2021
Telefónica Móviles El Salvador	—	134
Other liabilities	—	—
Liabilities associated with non-current assets and disposal groups held for sale	—	134

Fiber assets in Colombia

On July 16, 2021, Colombia Telecomunicaciones S.A. ESP BIC (Telefónica Colombia) entered into a sale with a Colombian company controlled by Kohlber Kravis Roberts - KKR (Onnet Fibra Colombia S.A.S) for the sale and purchase of certain fiber assets owned by Telefónica Colombia and for the provision of wholesale connectivity services by Onnet Fibra Colombia S.A.S to Telefónica Colombia, the development of activities of deployment of fiber network, and other associated services. On January 11, 2022, once the corresponding authorizations from the regulatory authorities were obtained and after the fulfillment of certain agreed conditions, the transaction was completed (see Note 10).

Telefónica Móviles El Salvador

On October 14, 2021, Telefónica Centroamérica Inversiones, S.L. (60% of which is held, directly and indirectly, by Telefónica and 40% by Corporación Multi Inversiones) reached an agreement with General International Telecom Limited for the sale of the entire share capital of Telefónica Móviles El Salvador, S.A. de C.V.

On January 13, 2022, after the satisfaction of the closing conditions and once the relevant regulatory approvals were obtained, Telefónica Centroamérica Inversiones, S.L transferred its stake (99.3%) in Telefónica Móviles El Salvador to General International Telecom El Salvador, S.A. de C.V. for an amount of 139 million U.S. dollars (approximately 121 million euros at the exchange rate at such date).

The breakdown of assets and liabilities of Telefónica Móviles El Salvador classified as Non-current assets and disposal groups held for sale and associated liabilities in the consolidated statement of financial position at December 31, 2021 was as follows:

2021	
Millions of euros	T. Móviles El Salvador
Non-current assets	211
Intangible assets	39
Goodwill	38
Property, plant and equipment	79
Rights of use	44
Financial assets and other non-current assets	7
Deferred tax assets	4
Current assets	42
Inventories	7
Receivables and other current assets	25
Tax receivables	3
Other current financial assets	1
Cash and cash equivalents	6
Non-current liabilities	63
Non-current financial liabilities	8
Non-current lease liabilities	37
Payable and other non-current liabilities	1
Deferred tax liabilities	10
Non-current provisions	7
Current liabilities	71
Current financial liabilities	27
Current lease liabilities	12
Payables and other current liabilities	32

Note 31. Events after the reporting period

The following events regarding the Telefónica Group took place between December 31, 2022 and the date of authorization for issue of the accompanying consolidated financial statements:

- On January 13, 2023, the first annual extension of the sustainability-linked syndicated loan facility for 5,500 million euros of Telefónica, S.A. was exercised. The new expiration date is January 13, 2028.
- On January 18, 2023, Telefónica informed that, once the corresponding regulatory and competition approvals were obtained, Pontel Participaciones, S.L., Telefónica's subsidiary held 83.35% by Telefónica and 16.65% by Pontegadea Inversiones, S.L., acquired 40% of the share capital of Telxius Telecom, S.A. from Taurus Bidco S.à r.l. (a company managed by KKR). As a result of the transaction, Pontel Participaciones, S.L., which held the remaining 60% of Telxius Telecom, S.A.'s share capital, has become the sole shareholder of Telxius Telecom, S.A. Likewise, Pontegadea Inversiones, S.L. increased its holding in Pontel Participaciones, S.L. to 30% and Telefónica has now a 70% stake.
- On January 23, 2023, Telefónica Emisiones, S.A.U. redeemed 1,277 million euros of its notes issued on January 22, 2013. These notes were guaranteed by Telefónica, S.A.
- In January 2023, Telefónica Europe, B.V. carried out the following transactions related to its capital structure:
 - a new issue amounting to 1,000 million euros, guaranteed by Telefónica, S.A. An amount equal to the net proceeds of the issue of the securities will be subject to specific eligibility criteria to be applied to finance new or refinance existing projects, as detailed in Telefónica's SDG Framework. The settlement took place on February 2, 2023; and
 - a tender offer for the following hybrid instruments: (i) any outstanding 1,250 million euros Undated 5.7 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "September 2023 Notes") and (ii) any outstanding 1,000 million euros Undated 10 Year Non-Call Deeply Subordinated Guaranteed Fixed Rate Reset Securities (the "March 2024 Notes"), irrevocably guaranteed by Telefónica, S.A. Telefónica Europe, B.V. accepted the purchase in cash of the tendered securities for an aggregate principal amount, with respect to the September 2023 Notes, of 388 million euros, and an aggregate principal amount, with respect to the March 2024 Notes, of 612 million euros. The tender offer settled on February 3, 2023.
- On February 14, 2023, Telefónica, S.A. signed a bilateral loan of 150 million euros and maturing in 2033.

Appendix I: Scope of consolidation

The main companies of the Telefónica Group

The table below lists the main companies comprising the Telefónica Group at December 31, 2022 and the main investments consolidated using the equity method.

Included for each company are the company name, corporate purpose, country, functional currency, share capital (in millions of functional currency units), the Telefónica Group's effective shareholding and the company or companies through which the Group holds a stake.

Parent Company

Telefónica, S.A.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Telefónica Spain					
Telefónica de España, S.A.U. Telecommunications service provider	Spain	EUR	1,024	100 %	Telefónica, S.A.
Telefónica Móviles España, S.A.U. Wireless communications services provider	Spain	EUR	209	100 %	Telefónica, S.A.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Teleinformática y Comunicaciones, S.A.U. (Telyco) Promotion, marketing and distribution of telephone and telematic equipment and services	Spain	EUR	8	100 %	Telefónica España Filiales, S.A.
Telefónica Soluciones de Informática y Com. de España S.A.U. Telecommunications systems, networks and infrastructure engineering	Spain	EUR	2	100 %	Telefónica de España, S.A.U.
Telefónica Soluciones de Outsourcing, S.A. Promotion and networks management	Spain	EUR	1	100 %	Telefónica España Filiales, S.A.
Telefónica Servicios Integrales de Distribución S.A.U. Logistic service provider	Spain	EUR	2	100 %	Telefónica de España, S.A.U.
Telefónica España Filiales, S.A. Organization and operation of multimedia service-related business	Spain	EUR	226	100 %	Telefónica, S.A.
Telefónica Servicios Audiovisuales, S.A.U. Provision of all type of audiovisual telecommunications services	Spain	EUR	6	100 %	Telefónica España Filiales, S.A.
Telefónica Broadcast Services, S.L.U. DSNG-based transmission and operation services	Spain	EUR	—	100 %	Telefónica España Filiales, S.A.
TBSC Barcelona Producciones, S.L.U. Provision of audiovisual telecommunications services	Spain	EUR	—	100 %	Telefónica Broadcast Services, S.L.U.
Telefónica Audiovisual Digital, S.L.U. Provision of all type of audiovisual telecommunications services	Spain	EUR	46	100 %	Telefónica España Filiales, S.A.
Telefónica Global Technology, S.A.U. Global management and operation of IT systems	Spain	EUR	16	100 %	Telefónica España Filiales, S.A.
Telefónica Educación Digital, S.L. Vertical e-learning portal	Spain	EUR	1	100 %	Telefónica España Filiales, S.A.
Bluevia Fibra, S.L. Operations and exploitation of FTTH network and other connectivity services.	Spain	EUR	68	55 %	Telefónica España Filiales, S.A. (30%) Telefónica Infra, S.L. (25%)
Solar360 Soluciones de Instalacion y Mantenimiento S.L. Marketing and management in the installation, sale and maintenance of photovoltaic equipment	Spain	EUR	—	51 %	Telefónica de España, S.A.U.
Telefónica Germany					
Telefónica Deutschland Holding A.G Holding company	Germany	EUR	2,975	70.58 %	Telefónica Germany Holdings Limited (69.22%) Telefónica, S.A. (1.36%)
Telefónica Germany GmbH & Co. OHG Wireless communications services operator	Germany	EUR	51	70.58 %	Telefónica Deutschland Holding A.G (70.57%) T. Germany Management, GmbH (0.01%)
Telefónica Germany (cont.)					
E-Plus Service GmbH Wireless communications services operator	Germany	EUR	—	70.58 %	Telefónica Germany GmbH & Co. OHG
Telefónica Germany Business Sales GmbH Technological and consulting services in Big Data provider	Germany	EUR	—	70.58 %	Telefónica Germany GmbH & Co. OHG
O2 Telefónica Deutschland Finanzierungs GmbH Integrated cash management, consulting and financial support for Group companies	Germany	EUR	—	70.58 %	Telefónica Germany GmbH & Co. OHG
Telefónica Brazil					
Telefónica Brasil, S.A. Wireline telephony operator	Brazil	BRL	63,571	74.79 %	Telefónica Latinoamérica Holding, S.L. (36.31%) Telefónica, S.A. (37.83%) Telefónica Chile, S.A. (0.06%)
Terra Networks Brasil, Ltda. ISP and portal	Brazil	BRL	136	74.79 %	Telefónica Brasil, S.A.
Telefónica Infraestrutura e Segurança Brasil Ltda. Security services and systems	Brazil	BRL	289	74.79 %	Terra Networks Brasil, Ltda.
Garliava RJ Infraestrutura e Redes de Telecomunicacoes S.A. Wireline telephony operator	Brazil	BRL	1,121	74.79 %	Telefónica Brasil, S.A.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Vivo ventures fundo de investimento em participacoes multiestrategia. Investment funds	Brazil	BRL	21	75.29 %	Telefónica Brasil, S.A. (73.29%) Telefónica Open Innovation S.L. (2.00%)
Vita IT Comércio e Serviços de Soluções em TI Ltda. Technical support, maintenance and other IT services	Brazil	BRL	2	74.79 %	Telefónica Infraestrutura e Segurança Brasil Ltda.
Telefónica Hispam					
Telefónica Hispanoamérica, S.A. Holding company	Spain	EUR	78	100 %	Telefónica, S.A.
TLH Holdco, S.L. Holding company	Spain	EUR	85	100 %	Telefónica, S.A.
Telefónica Venezolana, C.A. Wireless communications operator	Venezuela	VED	394	100 %	Telefónica Hispanoamérica, S.A. (86.72%) Comtel Comunicaciones Telefónicas, S.A. (2.56%)
Colombia Telecomunicaciones S.A. ESP BIC Communications services operator	Colombia	COP	3,410	67.5 %	Telefónica Hispanoamérica, S.A.
Operaciones Tecnológicas y Comerciales S.A.S Communications services operator	Colombia	COP	3,330	67.5 %	Colombia Telecomunicaciones S.A. ESP BIC
Pegaso Pcs S.A. de C.V. Communications services operator	Mexico	MXN	1,405	100 %	Telefónica Hispanoamérica, S.A. (99.95%) Celular de Telefonía S.A. de CV. (0.05%)
Terra Networks México, S.A. de C.V. ISP, portal and real-time financial information services	Mexico	MXN	305	100 %	Telefónica Hispanoamérica, S.A.
Fisatel México, S.A. de C.V. SOFOM E.N.R. Integrated cash mangement, consulting and financial support for Group companies	Mexico	MXN	3,505	100 %	Telefónica Hispanoamérica, S.A. (99.99%) Pegaso Pcs S.A. de CV. (0.01%)
Otecel, S.A. Wireless communications services provider	Ecuador	USD	183	100 %	Telefónica Hispanoamérica, S.A.
Telefónica de Argentina, S.A. Telecommunications service provider	Argentina	ARS	239,296	100 %	Telefónica Móviles Argentina, S.A. (77.64%) TLH Holdco, S.L. (22.36%)
Telefónica Móviles Argentina, S.A. Telecommunications service provider	Argentina	ARS	27,201	100 %	TLH Holdco, S.L.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Telefónica Hispam (cont.)					
Telefónica Móviles Chile, S.A. Wireless communications services operator	Chile	CLP	1,364,872	100 %	Inversiones Telefónica Internacional Holding SpA. (98.96%) Telefónica Hispanoamérica, S.A. (1.04%)
Telefónica Chile, S.A. Local and international long distance telephony services provider	Chile	CLP	809,773	99.34 %	Telefónica Móviles Chile, S.A.
Telefónica Chile Holdings, S.L.U. Holding Company	Chile	CLP	—	100 %	Telefónica Hispanoamérica, S.A.
Telefónica del Perú, S.A.A. Local, domestic and international long distance telephone service provider	Peru	PEN	2,107	98.94 %	Telefónica Hispanoamérica, S.A.
Media Networks Latin America, S.A.C Telecommunications research activities and projects	Peru	PEN	158	100 %	Telefónica Latinoamérica Holding, S.L.
Telefónica Móviles del Uruguay, S.A. Wireless communications and services operator	Uruguay	UYU	1,107	100 %	Telefónica Hispanoamérica, S.A.
Other companies					
Telefónica Infra, S.L. Holding company	Spain	EUR	12	100 %	Telefónica, S.A.
Telefónica Infra Germany GmbH Broadband telecommunications operator	Germany	EUR	—	100 %	Telefónica Infra, S.L.
Telefónica O2 Holdings Ltd. Holding company	United Kingdom	GBP	9	100 %	Telefónica, S.A. (99.99%) Telefónica Capital S.A. (0.01%)
MmO2 Ltd. Holding company	United Kingdom	GBP	—	100 %	Telefónica O2 Holding Ltd.
O2 International Holdings Ltd. Holding company	United Kingdom	GBP	—	100 %	O2 (Europe) Ltd.
O2 (Netherlands) Holdings BV. Holding company	Netherlands	EUR	—	100 %	O2 International Holdings Ltd.
Telefónica Germany Holdings Ltd. Holding company	United Kingdom	EUR	3,463	100 %	O2 (Europe) Ltd.
O2 (Europe) Ltd. Holding company	United Kingdom	EUR	6,895	100 %	Telefónica, S.A.
Telefónica International Holding, B.V. Holding company	Netherlands	EUR	—	100 %	Telefónica Latinoamérica Holding, S.L.
Telefónica Latinoamérica Holding, S.L. Sociedad holding	Spain	EUR	291	100 %	Telefónica, S.A.
Telefónica Global Solutions, S.L.U. International service provider	Spain	EUR	1	100 %	Telefónica, S.A.
Telefónica Global Solutions USA, Inc. Provision of telecommunications services	USA	USD	202	100 %	Telefónica Global Solutions, S.L.U.
Telefónica Global Solutions Germany GmbH. International service provider	Germany	EUR	—	100 %	Telefónica Global Solutions, S.L.U.
Telefónica Global Solutions México, S.A. de C.V. Carrying out research activities and projects in the field of telecommunications	Mexico	MXN	31	100 %	Telefónica Global Solutions, S.L.U.
Telefónica Digital España, S.L. Developer Telco Services Holding Company	Spain	EUR	26	100 %	Telefónica, S.A.
Telefónica Digital Ltd. Developer Telco Services	United Kingdom	GBP	45	100 %	Telefónica Digital España, S.L.
Telefónica Open Innovation S.L. Talent identification and development in ICT.	Spain	EUR	2	100 %	Telefónica Digital España, S.L.
Wayra Chile Tecnología e Innovación Limitada Technological innovation based business project development	Chile	CLP	29,899	100 %	Telefónica Open Innovation S.L.
Wayra Brasil Desenvolvedora e Apoiadora de Projetos Ltda Technological innovation based business project development	Brazil	BRL	52	100 %	Telefónica Open Innovation S.L.
WY Telecom, S.A. de C.V. Talent identification and development in ICT	Mexico	MXN	173	100 %	Telefónica Open Innovation S.L.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Other companies (cont.)					
Wayra Argentina, S.A. Talent identification and development in ICT	Argentina	ARS	1,133	100 %	Telefonica Open Innovation S.L. (95%) Telefónica, S.A. (5%)
Wayra Colombia, S.A.S. Technological innovation based business project development	Colombia	COP	2,304	100 %	Telefonica Open Innovation S.L.
Proyecto Wayra, C.A. Commercial, industrial and mercantile activities	Venezuela	VED	2	100 %	Telefónica Venezolana, C.A.
Wayra Perú Aceleradora de Proyectos, S.A.C. Technological innovation based business project development	Peru	PEN	28	100 %	Telefonica Open Innovation S.L.
Wayra UK Ltd. Technological innovation based business project development	United Kingdom	GBP	—	100 %	Telefonica Open Innovation S.L.
Terra Networks Perú, S.A. ISP and portal	Peru	PEN	10	100 %	Telefónica Latinoamérica Holding, S.L.
Terra Networks Argentina, S.A. ISP and portal	Argentina	ARS	43	100 %	Telefónica Latinoamérica Holding, S.L. (99.99%) Telefónica International Holding, B.V. (0.01%)
Telfisa Global, B.V. Integrated cash management, consulting and financial support for Group companies	Netherlands	EUR	—	100 %	Telefónica, S.A.
Telefónica Global Activities Holding, B.V. Holding Company	Netherlands	EUR	—	100 %	Telfisa Global, B.V.
Telefónica Global Services, GmbH Purchasing services	Germany	EUR	—	100 %	Group 3G UMTS Holding, GmbH
Telefónica Global Roaming, GmbH Optimization of network traffic	Germany	EUR	—	100 %	Telefónica Global Services, GmbH
Group 3G UMTS Holding GmbH Holding Company	Germany	EUR	250	100 %	Telefónica Global Activities Holdings, B.V.
Telefónica Compras Electrónicas, S.L. Development and provision of information Society services	Spain	EUR	—	100 %	Telefónica Global Services, GmbH
Telefonica lot & Big Data Tech S.A. Provision of telemarketing services	Spain	EUR	1	100 %	Telefónica Tech S.L.
Geprom Software Engineering S.L. Technical engineering services and other consultancy activities	Spain	EUR	—	100 %	Telefonica lot & Big Data Tech S.A.
Geprom Software Engineering S.A. de C.V. Technical engineering services and other consultancy activities	Mexico	MXN	—	100 %	Geprom Software Engineering S.L.
Telfin Ireland DAC. Intragroup financing	Ireland	EUR	—	100 %	Telefónica, S.A.
Telefónica Ingeniería de Seguridad, S.A.U. Security services and systems	Spain	EUR	8	100 %	Telefónica, S.A.
TIS Hispanoamérica, S.L. Security services and systems	Spain	EUR	—	100 %	Telefónica, S.A.
Telefónica Capital, S.A.U. Finance company	Spain	EUR	7	100 %	Telefónica, S.A.
Lotca Servicios Integrales, S.L. Aircraft ownership and operation	Spain	EUR	17	100 %	Telefónica, S.A.
Fonditel Pensiones, Entidad Gestora de Fondos de Pensiones, S.A. Administration of pension funds	Spain	EUR	16	70 %	Telefónica Capital, S.A.
Fonditel Gestión, Soc. Gestora de Instituciones de Inversión Colectiva, S.A. Administration and representation of collective investment schemes	Spain	EUR	2	100 %	Telefónica Capital, S.A.
Telefónica Investigación y Desarrollo, S.A.U. Telecommunications research activities and projects	Spain	EUR	7	100 %	Telefónica, S.A.
Telefónica Luxembourg Holding, S.à.r.L. Holding company	Luxembourg	EUR	3	100 %	Telefónica, S.A.
Nova Casiopea RE S.A. Reinsurance	Luxembourg	EUR	15	100 %	Telefónica Luxembourg Holding, S.à.r.L.
Telefónica Seguros y Reaseguros Compañía Aseguradora, S.A.U. Realización de operaciones de seguros directos	Spain	EUR	24	100 %	Telefónica Luxembourg Holding, S.à.r.L.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Other companies (cont.)					
Telefónica Finanzas, S.A.U. Integrated cash management, consulting and financial support for Group companies	Spain	EUR	3	100 %	Telefónica, S.A.
Telefónica Correduría de Seguros y Reaseguros Compañía de Mediación, S.A. Distribution, promotion or preparation of insurance contracts	Spain	EUR	—	100 %	Telefónica Finanzas, S.A.U. (TELFISA) (83.33%) Telefónica, S.A. (16.67%)
Telefónica Europe, B.V. Fund raising in capital markets	Netherlands	EUR	—	100 %	Telefónica, S.A.
Telefónica Participaciones, S.A.U. Financial debt instrument issuer	Spain	EUR	—	100 %	Telefónica, S.A.
Telefónica Emisiones, S.A.U. Financial debt instrument issuer	Spain	EUR	—	100 %	Telefónica, S.A.
Aliança Atlântica Holding B.V. Holding company	Netherlands	EUR	150	87.4 %	Telefónica, S.A. (50%) Telefónica Brasil, S.A. (37.4%)
Telefónica Serviços Empresariais do BRASIL, Ltda. Management and administrative services rendered	Brazil	BRL	63	100 %	Telefónica Servicios Globales, S.L.
Telefónica Gestión Integral de Edificios y Servicios S.L. Management and administrative services rendered	Spain	EUR	29	100 %	Telefónica Servicios Globales, S.L.
Tempotel, Empresa de Trabajo Temporal, S.A. Temporary employment agency	Spain	EUR	—	100 %	Telefónica Servicios Globales, S.L.
O2 Worldwide Limited Wireless telecommunications activities	United Kingdom	GBP	—	100 %	Telefónica, S.A.
Telefónica Servicios Globales, S.L. Sociedad Holding	Spain	EUR	1	100 %	Telefónica, S.A.
Telefónica Holding Atticus, B.V. Holding company	Netherlands	EUR	—	100 %	Telefónica Latinoamérica Holding, S.L.
Telefónica Soluciones de Criptografía, S.A. Engineering, research and development	Spain	EUR	—	100 %	Telefónica, S.A.
Telefónica Centroamérica Inversiones ,S.L. Communications services provider	Spain	EUR	1	60 %	Telefónica, S.A.
Telefónica Tech S.L. Holding Company	Spain	EUR	65	100 %	Telefónica, S.A.
Telefónica Cybersecurity & Cloud Tech SL. Ciberseguridad, seguridad de información electrónica y consultoría informática	Spain	EUR	32	100 %	Telefónica Tech S.L.
Telefónica Cybersecurity & Cloud Tech Chile SpA. Cybersecurity, electronic information security and IT consulting	Chile	CLP	25,301	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Tech Inc. Cybersecurity, electronic information security and IT consulting	USA	USD	9	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
iHackLabs Ltd. Cybersecurity, electronic information security and IT consulting	United Kingdom	GBP	—	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Audertis Audit Services S.L. Provision of audit services in the areas of security, privacy and data protection	Spain	EUR	—	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Govertis Advisory Services S.L. Cybersecurity, electronic information security and IT consulting	Spain	EUR	—	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Cybersecurity & Cloud Tech Colombia SAS Ciberseguridad, seguridad de información electrónica y consultoría informática	Colombia	COP	406	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Cybersecurity Tech Mexico, S.A de C.V. Cybersecurity, electronic information security and IT consulting	Mexico	MXN	48	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Cibersegurança e Tecnologia do Brasil Ltda Cybersecurity, electronic information security and IT consulting	Brazil	BRL	26	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Cybersecurity & Cloud Tech Perú S.A.C Cybersecurity, electronic information security and IT consulting	Peru	PEN	30	100 %	Telefónica Tech S.L.

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Other companies (cont.)					
Telefonica Cybersecurity Tech Ecuador Tctech S.A. Cybersecurity, electronic information security and IT consulting	Ecuador	USD	—	100 %	Otecel, S.A. (99%) Telefónica Global Solutions Ecuador TGSE, S.A. (1%)
Telefónica Cybersecurity & Cloud Tech Deutschland GmbH Cybersecurity, electronic information security and IT consulting	Germany	EUR	—	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Acens Technologies, S.L. Holding housing and telecommunications solutions Service provider	Spain	EUR	2	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Altostratus Solutions, S.L. Provision of IT services	Spain	EUR	—	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Tech UK & Ireland, Limited Holding company	United Kingdom	GBP	14	100 %	Telefónica Cybersecurity & Cloud Tech S.L.
Telefónica Tech UK Holdings Limited Holding company	United Kingdom	GBP	—	100 %	Telefónica Tech UK & Ireland, Limited
Telefónica Tech UK TOG Limited Headquarters activities	United Kingdom	GBP	—	100 %	Telefónica Tech UK Holdings Limited
Telefónica Tech UK Managed Services Limited Information technology, management and IT services consultancy	United Kingdom	GBP	—	100 %	Telefónica Tech UK TOG Limited
Telefónica Tech UK Limited Information technology, management and IT services consultancy	United Kingdom	GBP	—	100 %	Telefónica Tech UK TOG Limited
Telefónica Tech Northern Ireland Holdings Limited Other computer service activities	United Kingdom	GBP	1	100 %	Telefónica Tech UK & Ireland, Limited
Telefónica Tech Communication & Collaboration Limited Other computer service activities	United Kingdom	GBP	—	100 %	Telefónica Tech Northern Ireland Holdings Limited
Telefónica Tech Northern Ireland Limited Other computer service activities	United Kingdom	GBP	—	100 %	Telefónica Tech Northern Ireland Holdings Limited
Telefónica Tech Ireland Limited Provision of IT services	Ireland	EUR	—	100 %	Telefónica Tech Northern Ireland Holdings Limited
Telefónica Tech Ocean Limited Holding company	United Kingdom	GBP	—	100 %	Telefónica Tech UK & Ireland, Limited.
Perpetual Topco Limited Holding company	United Kingdom	GBP	4	100 %	Telefónica Tech UK & Ireland Limited
Perpetual Midco Limited Holding company	United Kingdom	GBP	4	100 %	Perpetual Topco Limited
Perpetual Bidco Limited Holding company	United Kingdom	GBP	3	100 %	Perpetual Midco Limited
Incremental Group Holdings Limited Holding company	United Kingdom	GBP	1	100 %	Perpetual Bidco Limited
Redspire Limited Software development and information technology consultancy activities	United Kingdom	GBP	—	100 %	Incremental Group Holdings Limited
Incremental Group Limited Information technology consultancy activities and other services activities	United Kingdom	GBP	—	100 %	Incremental Group Holdings Limited
Adatis Group Limited Holding company	United Kingdom	GBP	—	100 %	Incremental Group Holdings Limited
Adatis Consulting Limited Information technology consultancy activities	United Kingdom	GBP	—	100 %	Adatis Group Limited
Adatis BG LTD Information technology consultancy activities	Bulgaria	BGN	—	100 %	Adatis Consulting Limited
Adatis India Private Limited Information technology consultancy activities	India	INR	—	100 %	Adatis Group Limited (99%) Adatis Consulting Limited (1%)
Kumo Analytics Limited Information technology consultancy activities	United Kingdom	GBP	—	100 %	Adatis Group Limited
Adatis Managed Services Limited Information technology consultancy activities	United Kingdom	GBP	—	100 %	Adatis Group Limited

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Other companies (cont.)					
BE-terna Acceleration Holding GmbH Holding company and provision of marketing, consultancy, implementation and commercialisation services for software and information technology	Germany	EUR	—	100 %	Telefónica Cybersecurity & Cloud Tech SL.
BE-terna Acceleration GmbH Holding company	Germany	EUR	—	100 %	BE-terna Accelera Holding
BE-terna Enhancement GmbH Holding company	Germany	EUR	—	100 %	BE-terna Acceleration
BE-terna Germany GmbH Holding company	Germany	EUR	—	100 %	BE-terna Enhancement
BE-terna AB (Sweden) Technology services	Sweden	SEK	—	100 %	BE-terna Enhancement
Boydak Automation AG Technology services	Switzerland	CHF	—	100 %	BE-terna Enhancement
BE-terna ApS (Denmark) Computer programming activities	Denmark	DKK	—	100 %	BE-terna Enhancement
BE-terna B.V. (Netherlands) Technology services	Netherlands	EUR	—	100 %	BE-terna ApS (Denmark)
BE-terna GmbH (Leipzig) Software production, electronic data processing, consultancy, services and project management	Germany	EUR	—	100 %	BE-terna Germany GmbH
BE-terna Austria GmbH Holding company	Austria	EUR	—	100 %	BE-terna Enhancement
BE-terna GmbH (Innsbruck) Services in automatic data processing and information technology	Austria	EUR	—	100 %	BE-terna Austria GmbH
Pipol A/S Conduct business with international implementation of business-oriented software solutions	Denmark	DKK	1	100 %	BE-terna Enhancement
BE-terna A/S (Norway) Computer programming activities	Norway	NOK	—	100 %	BE-terna Enhancement
BE-terna Business Solutions GmbH Software development and consulting, distribution of corresponding products, systems and processes	Germany	EUR	—	100 %	BE-terna GmbH (Innsbruck)
BE-terna Industry Solutions GmbH Sales, implementation and maintenance of international ERP products	Germany	EUR	—	100 %	BE-terna GmbH (Innsbruck)
BE-terna AG (Switzerland) Service provision, analysis and optimisation of business processes, selection of business software and implementation of ERP solutions	Switzerland	CHF	—	100 %	BE-terna GmbH (Innsbruck)
BE-terna Adriatic d.o.o Holding company	Slovenia	EUR	—	100 %	BE-terna Austria GmbH
BE-terna d.o.o Belgrade (Serbia) Technology services	Serbia	RSD	13	100 %	BE-terna Adriatic
BE-terna d.o.o Ljubijana (Slovenia) Technology services	Slovenia	EUR	—	100 %	BE-terna Adriatic
BE-terna d.o.o Zagreb (Croatia) Technology services	Croatia	HRK	2	100 %	BE-terna Adriatic
Pontel Participaciones, S.L. Holding company	Spain	EUR	—	83.35 %	Telefónica, S.A.
Telxius Telecom, S.A. Telecommunications service provider	Spain	EUR	260	50.01 %	Pontel Participaciones, S.L.
Telxius Cable América, S.A. Provision of high bandwidth communications services	Uruguay	USD	417	50.01 %	Telxius Telecom, S.A.
Telxius Cable España, S.L.U. Establishment and operation of any kind of communications infrastructure and/or network	Spain	EUR	5	50.01 %	Telxius Telecom, S.A.
Telxius Cable República Dominicana, S.A.S. Telecommunications service provider	Republica Dominicana	USD	6	50.01 %	Telxius Cable América, S.A. (49.51%) Telxius Cable España, S.L.U. (0.5%)
Telxius Cable Argentina, S.A. Operation and deployment of telecommunications infrastructure	Argentina	USD	78	50.01 %	Telxius Cable América, S.A. (49.98%) Telxius Cable España, S.L.U. (0.03%)

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Other companies (cont.)					
Telxius Cable Panamá, S.A. Installation and operation of telecommunications networks for wholesalers	Panama	USD	10	50.01 %	Telxius Cable América, S.A.
Telxius Cable Puerto Rico, Inc. High capacity optical fibre network communications services	Puerto Rico	USD	14	50.01 %	Telxius Cable América, S.A.
Telxius Cable USA, Inc. High bandwidth communications services	USA	USD	58	50.01 %	Telxius Cable América, S.A.
Telxius Cable Ecuador, S.A. Sale of usage of data transmission capacity via an underwater optical fibre network	Ecuador	USD	5	50.01 %	Telxius Cable América, S.A.
Telxius Cable Chile, S.A. Involvement in businesses related to public or private telecommunications services	Chile	USD	37	50.01 %	Telxius Cable América, S.A.
Telxius Cable Guatemala, S.A. Installation and operation of telecommunications networks for wholesalers	Guatemala	USD	20	50.01 %	Telxius Cable América, S.A.
Telxius Cable Perú, S.A.C. Involvement in the operation and deployment of international telecommunications services via underwater cables and others means	Peru	USD	20	50.01 %	Telxius Cable América, S.A.
Telxius Cable Colombia, S.A. Supply of data transmission capacity via underwater cable system	Colombia	USD	4	50.01 %	Telxius Cable América, S.A. (47.5%) Telxius Cable Chile, S.A. (0.83%) Telxius Cable Perú, S.A.C. (0.84%) Telxius Cable Guatemala, S.A. (0.83%) Telxius Cable Argentina, S.A. (0.01%)
Telxius Cable Brasil Participações, Ltda. Holding company	Brazil	USD	62	50.01 %	Telxius Cable América, S.A.
Telxius Cable Brasil, Ltda. Operation and deployment of telecommunications infrastructures	Brazil	USD	74	50.01 %	Telxius Cable Brasil Participações, Ltda.
Telxius Cable Bolivia, S.A. Establishment and operation of any kind of communications infrastructure and/or network	Bolivia	USD	4	50.01 %	Telxius Cable América, S.A. (49.01%) Telxius Cable España, S.L.U. (0.5%) Telxius Cable Argentina, S.A. (0.5%)
Companies accounted for using the equity method					
VMED O2 UK Limited Integrated provider of fixed and mobile services	United Kingdom	GBP	—	50 %	Telefónica O2 Holdings Limited
FiBrasil Infraestrutura e Fibra Ótica S.A. Fibre wholesale supplier	Brazil	BRL	2	43.7 %	Telefónica Brasil, S.A. (18.7%) Telefónica Infra S.L. (25%)
VivaE Educação Digital S.A. Training for professional and management development	Brazil	BRL	1	37.40 %	Telefónica Brasil, S.A.
HoldCo InfraCo SpA Investment in money and/or securities	Chile	CLP	25,067	39.74 %	Telefónica Chile, S.A.
Infraco SpA. Operation of physical fibre optic infrastructure	Chile	CLP	25,067	39.74 %	HoldCo InfraCo SpA
Telefónica Factoring España, S.A. Factoring services provider	Spain	EUR	5	50 %	Telefónica, S.A.
Telefónica Factoring Do Brasil, Ltda. Factoring services provider	Brazil	BRL	5	50 %	Telefónica, S.A. (40%) Telefónica Factoring España, S.A. (10%)
Telefónica Factoring Mexico, S.A. de C.V. SOFOM ENR Factoring services provider	Mexico	MXN	34	50 %	Telefónica, S.A. (40.5%) Telefónica Factoring España, S.A. (9.5%)
Telefónica Factoring Perú, S.A.C. Factoring services provider	Peru	PEN	6	50 %	Telefónica, S.A. (40.5%) Telefónica Factoring España, S.A. (9.5%)
Telefónica Factoring Colombia, S.A. Factoring services provider	Colombia	COP	4,000	50 %	Telefónica, S.A. (40.5%) Telefónica Factoring España, S.A. (9.5%)

Name and corporate purpose	Country	Currency	Capital	%Telefónica Group	Holding Company
Companies accounted for using the equity method (cont.)					
Telefónica Factoring Chile, SpA. Factoring services provider	Chile	CLP	547	50 %	Telefónica Factoring España, S.A.
Mobile Financial Services Holding SPRL Financial services	Belgium	USD	198	50 %	Telefónica Internacional Holding, B.V (26.28%) Telefónica Holding Atticus, B.V (23.72%)
Telefónica Consumer Finance, Establecimiento Financiero de Crédito, S.A. Specialised credit institution	Spain	EUR	5	50 %	Telefónica, S.A.
Movistar Consumer Finance Colombia SAS. Specialised credit institution	Colombia	COP	6,000	50 %	Telefónica Digital España, S.L.
Alamo Holdco S.L. Holding company	Spain	EUR	—	27 %	Colombia Telecomunicaciones S.A. ESP BIC
ONNET Fibra Colombia S.A.S. Fibre wholesale supplier	Colombia	COP	45,852	27 %	Alamo Holdco S.L.
The Smart Steps Data Technology Company Big data services in China	China	CNY	—	37.5 %	Telefónica Iot & Big Data Tech S.A.
Internet para todos S.A.C Telecommunications service provider	Peru	PEN	364	54.09 %	Telefónica del Perú, S.A.A.
Movistar Prosegur Alarmas, S.L. Private security services	Spain	EUR	—	50 %	Telefónica España Filiales, S.A.
Prosegur Soluciones S.A.U. Private security services	Spain	EUR	—	50 %	Movistar Prosegur Alarmas, S.L.
Buendía Producción, S.L. Service provision related to film and video production activities	Spain	EUR	—	50 %	Telefónica Audiovisual Digital, S.L.U.
Buendía Estudios, S.L. Service provision related to film and video production activities	Spain	EUR	—	50 %	Telefónica Audiovisual Digital, S.L.U.
Buendía Estudios Uno, S.L.U. Service provision related to film and video production activities	Spain	EUR	—	50 %	Buendía Estudios, S.L.
Buendía Estudios Dos, S.L.U. Service provision related to film and video production activities	Spain	EUR	—	50 %	Buendía Estudios, S.L.
Buendía Estudios Canarias, S.L.U. Service provision related to film and video production activities	Spain	EUR	—	50 %	Buendía Estudios, S.L.
Buendía Estudios Bizkaia, S.L. Service provision related to film and video production activities	Spain	EUR	—	50 %	Buendía Estudios, S.L.
Solar360 de Repsol y Movistar S.L. Development and marketing of photovoltaic self-consumption products and/or services	Spain	EUR	—	50 %	Telefónica de España, S.A.U.
UGG TopCo/HoldCo General Partner GmbH. Holding company	Germany	EUR	—	47.06 %	Telefónica Infra Germany GmbH. (40%) Telefónica Deutschland Holding A.G. (7.06%)
UGG TopCo GmbH & Co KG Holding company	Germany	EUR	—	47.06 %	Telefónica Infra Germany GmbH. (40%) Telefónica Deutschland Holding A.G. (7.06%)
UGG HoldCo GmbH& Co KG Holding company	Germany	EUR	—	47.06 %	UGG TopCo GmbH & Co KG
UGG General Partner GmbH Holding company	Germany	EUR	—	47.06 %	UGG HoldCo GmbH& Co KG
Unsere Grüne Glasfaser GmbH & Co KG Broadband telecommunications operator	Germany	EUR	—	47.06 %	UGG HoldCo GmbH& Co KG
Daytona Midco S.L. Securities transactions	Spain	EUR	4	20 %	Telefónica Infra, S.L.
Digital Data Centre BidCo, S.L.U. Management and administration of equity securities	Spain	EUR	4	20 %	Daytona Midco S.L.
Telefónica Renting, S.A. Purchase, sale and leasing of all kinds of movable property and provision of services ancillary to the leasing thereof	Spain	EUR	—	50 %	Telefónica, S.A.
Opal Holdco Limited Holding company	United Kingdom	GBP	—	50 %	Telefónica Infra, S.L.
Opal Jvco Limited Holding company	United Kingdom	GBP	—	25 %	Opal Holdco Limited

Main changes in the scope of consolidation for the year 2022

Acquisition of new companies

Companies/Segment/Subsidiaries	Country	Date of inclusion	% Acquisition
Telefónica Brazil			
VivaE Educação Digital S.A. Training for professional and management development	Brazil	02/28/2022	74.79 %
Garliava RJ Infraestrutura e Redes de Telecomunicacoes S.A. Wireline telephony operator	Brazil	04/30/2022	74.79 %
Vivo ventures fundo de investimento em participacoes multiestrategia. Fondos de inversión	Brazil	04/30/2022	74.79 %
Vita IT Comércio e Serviços de Soluções em TI Ltda. Technical support, maintenance and other IT services	Brazil	10/31/2022	74.79 %
Other companies			
Geprom Software Engineering S.L. Technical engineering services and other consultancy activities	Spain	01/30/2022	100 %
Geprom Software Engineering S.A. de C.V. Technical engineering services and other consultancy activities	Mexico	01/30/2022	100 %
Perpetual Topco Limited Holding company	United Kingdom	03/31/2022	100 %
Perpetual Midco Limited Holding company	United Kingdom	03/31/2022	100 %
Perpetual Bidco Limited Holding company	United Kingdom	03/31/2022	100 %
Incremental Group Holdings Limited Holding company	United Kingdom	03/31/2022	100 %
Redspire Limited Software development and information technology consultancy activities	United Kingdom	03/31/2022	100 %
Incremental Group Limited Information technology consultancy activities and other services activities	United Kingdom	03/31/2022	100 %
Adatis Group Limited Holding company	United Kingdom	03/31/2022	100 %
Adatis Consulting Limited Information technology consultancy activities	United Kingdom	03/31/2022	100 %
Adatis BG LTD Information technology consultancy activities	Bulgaria	03/31/2022	100 %
Adatis India Private Limited Information technology consultancy activities	India	03/31/2022	100 %
Kumo Analytics Limited Information technology consultancy activities	United Kingdom	03/31/2022	100 %
Adatis Managed Services Limited Information technology consultancy activities	United Kingdom	03/31/2022	100 %
BE-terna Acceleration Holding GmbH Holding company and provision of marketing, consultancy, implementation and commercialisation services for software and information technology	Germany	06/30/2022	100 %
BE-terna Acceleration GmbH Holding company	Germany	06/30/2022	100 %
BE-terna Enhancement GmbH Holding company	Germany	06/30/2022	100 %
BE-terna Germany GmbH Holding company	Germany	06/30/2022	100 %
BE-terna AB (Sweden) Technology services	Sweden	06/30/2022	100 %
Boydak Automation AG Technology services	Switzerland	06/30/2022	100 %
BE-terna ApS (Denmark) Computer programming activities	Denmark	06/30/2022	100 %
BE-terna B.V. (Netherlands) Technology services	Netherlands	06/30/2022	100 %
BE-terna GmbH (Leipzig) Software production, electronic data processing, consultancy, services and project management	Germany	06/30/2022	100 %

Companies/Segment/Subsidiaries	Country	Date of inclusion	% Acquisition
Other companies (cont.)			
BE-terna Austria GmbH Holding company	Austria	06/30/2022	100 %
BE-terna GmbH (Innsbruck) Services in automatic data processing and information technology	Austria	06/30/2022	100 %
Pipol A/S Conduct business with international implementation of business-oriented software solutions	Dinamarca	06/30/2022	100 %
BE-terna A/S (Norway) Computer programming activities	Norway	06/30/2022	100 %
BE-terna Business Solutions GmbH Software development and consulting, distribution of corresponding products, systems and processes	Germany	06/30/2022	100 %
BE-terna Industry Solutions GmbH Sales, implementation and maintenance of international ERP products	Germany	06/30/2022	100 %
BE-terna AG (Switzerland) Service provision, analysis and optimisation of business processes, selection of business software and implementation of ERP solutions	Switzerland	06/30/2022	100 %
BE-terna Adriatic d.o.o Holding company	Slovenia	06/30/2022	100 %
BE-terna d.o.o Belgrade (Serbia) Technology services	Serbia	06/30/2022	100 %
BE-terna d.o.o Ljubijana (Slovenia) Technology services	Slovenia	06/30/2022	100 %
BE-terna d.o.o Zagreb (Croatia) Technology services	Croatia	06/30/2022	100 %

Companies accounted for using the equity method

Alamo Holdco S.L. Holding company	Spain	01/31/2022	27 %
ONNET Fibra Colombia S.A.S. Fibre wholesale supplier	Colombia	01/31/2022	27 %
Opal Holdco Limited Holding company	United Kingdom	08/31/2022	50 %
Liberty Global Investment Jvco Limited Holding company	United Kingdom	08/31/2022	50 %

Incorporation of companies

Companies/Segment/Subsidiaries	Country	Date of incorporation	% Acquisition
Telefónica Spain			
Bluevia Fibra, S.L. Operations and exploitation of FTTH network and other connectivity services.	Spain	06/30/2022	100 %
Solar360 Soluciones de Instalacion y Mantenimiento S.L. Marketing and management in the installation, sale and maintenance of photovoltaic equipment	Spain	06/30/2022	51 %
Telefónica Hispam			
TLH Holdco, S.L. Holding company	Spain	09/30/2022	100 %
Other companies			
TIS Hispanoamérica, S.L. Security services and systems	Spain	10/31/2022	100 %
Companies accounted for using the equity method			
Buendía Estudios Canarias, S.L.U Service provision related to film and video production activities	Spain	01/01/2022	50 %
Buendía Estudios Bizkaia, S.L. Service provision related to film and video production activities	Spain	09/30/2022	50 %
Solar360 de Repsol y Movistar S.L. Development and marketing of photovoltaic self-consumption products and/or services	Spain	06/30/2022	50 %
Telefónica Renting, S.A. Purchase, sale and leasing of all kinds of movable property and provision of services ancillary to the leasing thereof	Spain	07/31/2022	50 %

Merged companies

Companies/Segment/Subsidiaries	Country	Date	Surviving company
Telefónica Spain			
Compañía Independiente de Televisión, S.L. Provision of all type of audiovisual telecommunications services	Spain	06/30/2022	Telefónica Audiovisual Digital, S.L.U.

Divestment companies

Companies/Segment/Subsidiaries	Country	Deconsolidation date	% Sold
Telefónica Spain			
Bluevia Fibra, S.L.U. Operations and exploitation of FTTH network and other connectivity services.	Spain	12/31/2022	45 %
Other companies			
Telefónica Móviles El Salvador, S.A. de C.V. Provision of wireless and international long distance communications services	El Salvador	01/31/2022	59.58 %
Companies accounted for using the equity method			
VivaE Educação Digital S.A. Training for professional and management development	Brazil	04/30/2022	50 %
Opal Jvco Limited Holding company	United Kingdom	12/31/2022	25 %

Liquidated companies

Companies/Segment/Subsidiaries	Country	Deconsolidation date	% Shareholding
Other companies			
Telefónica Cybersecurity Tech Argentina S.A. Cybersecurity, electronic information security and IT consulting	Argentina	08/31/2022	100 %
Sao Paulo Telecomunicações Participações Ltda Holding company	Brazil	10/31/2022	100 %

Main changes in the scope of consolidation for the year 2021

Acquisition of new companies

Companies/Segment/Subsidiaries	Country	Date of inclusion	% Acquisition
Other companies			
Altostratus Solutions, S.L. Provision of IT services	Spain	06/30/2021	100 %
Telefónica Cybersecurity & Cloud Tech Deutschland GmbH Cybersecurity, electronic information security and IT consulting	Germany	08/31/2021	100 %
Telefónica Tech UK & Ireland, Limited Holding company	United Kingdom	07/31/2021	100 %
Telefónica Tech UK Holdings Limited Holding company	United Kingdom	07/31/2021	100 %
Telefónica Tech UK TOG Limited Headquarters activities	United Kingdom	07/31/2021	100 %
Telefónica Tech UK Managed Services Limited Information technology, management and IT services consultancy	United Kingdom	07/31/2021	100 %
Telefónica Tech UK Limited Information technology, management and IT services consultancy	United Kingdom	07/31/2021	100 %
Telefónica Tech Northern Ireland Holdings Limited Other computer service activities	United Kingdom	07/31/2021	100 %
Telefónica Tech Communication & Collaboration Limited Other computer service activities	United Kingdom	07/31/2021	100 %
Telefónica Tech Northern Ireland Limited Other computer service activities	United Kingdom	07/31/2021	100 %
Cancom Ireland Limited Provision of IT services	Ireland	07/31/2021	100 %
Telefónica Tech Ocean Limited Holding company	United Kingdom	07/31/2021	100 %
Companies accounted for using the equity method			
Prosegur Soluciones S.A.U. Private security services	Spain	07/31/2021	100 %
Daytona Midco S.L. Securities transactions	Spain	05/31/2021	13.94 %

Incorporation of companies

Companies/Segment/Subsidiaries	Country	Date of incorporation	% Acquisition
Telefónica Hispam			
HoldCo InfraCo SpA Investment in money and/or securities	Chile	04/30/2021	100 %
Other companies			
Telefónica Global Solutions Germany GmbH. International service provider	Germany	03/31/2021	100 %
Companies accounted for using the equity method			
Movistar Consumer Finance Colombia SAS. Specialised credit institution	Colombia	01/31/2021	50 %
Buendía Estudios Uno, S.L.U. Service provision related to film and video production activities	Spain	03/31/2021	50 %
Buendía Estudios Dos, S.L.U. Service provision related to film and video production activities	Spain	03/31/2021	50 %
Joint ventures			
FiBrasil Infraestrutura e Fibra Ótica S.A. Fibre wholesale supplier	Brazil	03/31/2021	43.55 %
VMED O2 UK Limited Integrated provider of fixed and mobile services	United Kingdom	06/30/2021	50 %

Merged companies

Companies/Segment/Subsidiaries	Country	Date	Surviving company
Other companies			
Govertis Advisory Services Perú S.A.C. Cybersecurity, electronic information security and IT consulting	Peru	06/30/2021	Telefónica Cybersecurity & Cloud Tech Perú S.A.C
Cyberrange S.L. Cybersecurity, electronic information security and IT consulting	Spain	10/31/2021	Telefónica Cybersecurity & Cloud Tech SL.
Ace & Niu Consulting S.L. Cybersecurity, electronic information security and IT consulting	Spain	10/31/2021	Govertis Advisory Services S.L.
Telefónica Innovación Alpha, S.L. Electronic communications and audiovisual services provider	Spain	09/30/2021	Telefonica Open Innovation S.L.

Divestment companies

Companies/Segment/Subsidiaries	Country	Deconsolidation date	% Sold
Other companies			
Inmosites, S.A.U. Purchase and leasing of real estate related to the telecommunications infrastructure business	Spain	06/30/2021	50.01 %
Telxius Torres Latam, S.L.U. Establishment and operation of any kind of communications infrastructure and/or network	Spain	06/30/2021	50.01 %
Telxius Torres España, S.L.U. Establishment and operation of any kind of communications infrastructure and/or network	Spain	06/30/2021	50.01 %
Telxius Towers Germany, Gmbh. Telecommunications service provider	Germany	06/30/2021	50.01 %
Telxius Torres Perú S.A.C. Telecommunications service provider	Peru	06/30/2021	50.01 %
Telxius Torres Chile Holding, S.A. Holding company	Chile	06/30/2021	50.01 %
Telxius Torres Chile, S.A. Telecommunications service provider	Chile	06/30/2021	50.01 %
Telxius Torres Brasil, Ltda. Telecommunications service provider	Brazil	06/30/2021	50.01 %
Inmosites Brasil Participações Imobiliarias Ltda Telecommunications service provider	Brazil	06/30/2021	50.01 %
Telxius Torres Argentina, S.A. Telecommunications service provider	Argentina	06/30/2021	50.01 %
Telefónica de Costa Rica TC, S.A. Wireless communications	Costa Rica	08/31/2021	100 %
Companies accounted for using the equity method			
HoldCo InfraCo SpA Investment in money and/or securities	Chile	07/31/2021	60 %
Joint ventures			
O2 Holdings Ltd Holding company	United Kingdom	06/30/2021	50 %
Telefónica United Kingdom Ltd. Wireless communications	United Kingdom	06/30/2021	50 %
Giffgaff Ltd Wireless communications services provider	United Kingdom	06/30/2021	50 %
O2 Networks Ltd. Holding company	United Kingdom	06/30/2021	50 %
Cornerstone Telecommunications Network sharing	United Kingdom	06/30/2021	25 %
Tesco Mobile Ltd. Wireless telephony services	United Kingdom	06/30/2021	25 %
Telefónica Cybersecurity Tech UK Limited Cybersecurity, electronic information security and IT consulting	United Kingdom	06/30/2021	50 %

Appendix II: Board and Senior Management Compensation

TELEFÓNICA, S.A.

(Amounts in euros)

Directors	Salary ¹	Fixed remuneration ²	Allowances ³	Short-term variable remuneration ⁴	Remuneration for belonging to the Board Committees ⁵	Other items ⁶	Total
Mr. José María Álvarez-Pallete López	1,923,100	—	—	4,198,897	—	6,085	6,128,082
Mr. Isidro Fainé Casas	—	200,000	—	—	80,000	—	280,000
Mr. José María Abril Pérez	—	200,000	9,000	—	91,200	—	300,200
Mr. José Javier Echenique Landiribar	—	200,000	24,000	—	113,600	—	337,600
Mr. Ángel Vilá Boix	1,600,000	—	—	2,911,200	—	24,514	4,535,714
Mr. Juan Ignacio Cirac Sasturain	—	120,000	30,000	—	33,600	—	183,600
Mr. Peter Erskine	—	120,000	19,000	—	113,600	—	252,600
Ms. Carmen García de Andrés	—	120,000	32,000	—	33,600	—	185,600
Ms. María Luisa García Blanco	—	120,000	32,000	—	44,800	—	196,800
Mr. Peter Löscher	—	120,000	23,000	—	113,600	—	256,600
Ms. Verónica Pascual Boé	—	120,000	7,000	—	11,200	—	138,200
Mr. Francisco Javier de Paz Mancho	—	120,000	33,000	—	124,800	—	277,800
Mr. Francisco José Riberas Mera	—	120,000	—	—	—	—	120,000
Ms. María Rotondo Urcola	—	120,000	20,000	—	22,400	—	162,400
Ms. Claudia Sender Ramírez	—	120,000	18,000	—	22,400	—	160,400

¹Salary: Regarding Mr José María Álvarez-Pallete López and Mr Ángel Vilá Boix, the amount includes the non-variable remuneration earned from their executive functions.

²Fixed remuneration: Amount of the compensation in cash, with a pre-established payment periodicity, whether or not it can be consolidated over time, earned by the member for his/her position on the Board, regardless of the effective attendance of the member to board meetings.

³Allowances: Total amount of allowances for attending Advisory or Steering Committee meetings.

⁴Short-term variable remuneration (bonuses): Variable amount linked to the performance or achievement of a series of individual or group objectives (quantitative or qualitative) within a period of time equal to or less than a year, corresponding to the year 2022 and to be paid in the year 2023. In reference to the bonus corresponding to 2021, which was paid in 2022, Executive Board Member Mr José María Álvarez-Pallete López received 3,807,738 euros and Executive Board Member Mr Ángel Vilá Boix received 2,640,000 euros.

⁵Remuneration for belonging to the Board Committees: Amount of items other than allowances, which the directors are beneficiaries through their position on the Executive Commission and the Advisory or Steering Committees, regardless of the effective attendance of the board member such Committee meetings.

⁶Other concepts: This includes, among others, the amounts received as remuneration in kind (general medical and dental coverage and vehicle insurance), paid by Telefónica, S.A.

The following table breaks down the amounts accrued and/or received from other companies of the Telefónica Group other than Telefónica, S.A. individually, by the Board Members of the Company, by the performance of executive functions or by their membership to the Board of Directors of such companies:

OTHER COMPANIES OF THE TELEFÓNICA GROUP

(Amounts in euros)

Directors	Salary ¹	Fixed remuneration ²	Allowances ³	Short-term variable remuneration ⁴	Remuneration for belonging to the Board Committees ⁵	Other items ⁶	Total
Mr. José María Álvarez-Pallete López	—	—	—	—	—	—	—
Mr. Isidro Fainé Casas	—	—	—	—	—	—	—
Mr. José María Abril Pérez	—	—	—	—	—	—	—
Mr. José Javier Echenique Landiribar	—	90,000	—	—	—	87,500	177,500
Mr. Ángel Vilá Boix	—	—	—	—	—	—	—
Mr. Juan Ignacio Cirac Sasturain	—	—	—	—	—	90,457	90,457
Mr. Peter Erskine	—	80,000	—	—	—	—	80,000
Ms Carmen García de Andrés	—	—	—	—	—	—	—
Ms. María Luisa García Blanco	—	—	—	—	—	87,500	87,500
Mr. Peter Löscher	—	119,000	—	—	—	—	119,000
Ms. Verónica Pascual Boé	—	—	—	—	—	60,457	60,457
Mr. Francisco Javier de Paz Mancho	—	170,727	—	—	—	155,000	325,727
Mr. Francisco José Riberas Mera	—	—	—	—	—	—	—
Ms. María Rotondo Urcola	—	—	—	—	—	—	—
Ms. Claudia Sender Ramírez	—	—	—	—	—	127,957	127,957

¹ Salary: Amount of non-variable remuneration earned by the Director from other companies of the Telefónica Group for his/her executive functions.

² Fixed remuneration: Amount of the compensation in cash, with a pre-established payment periodicity, subject to consolidation over time or not, earned by the member for his/her position on the boards of other companies of the Telefónica Group.

³ Allowances: Total amount of the allowances for attending the board meetings of other companies of the Telefónica Group.

⁴ Variable short-term remuneration (bonuses): Variable amount linked to the performance or achievement of a series of individual or group objectives (quantitative or qualitative) within a period of time equal to or less than a year, corresponding to the year 2022 and to be paid in the year 2023 by other companies of the Telefónica Group.

⁵ Remuneration for belonging to the Board Committees of other companies of the Telefónica Group: Amount of items other than allowances, which the directors are beneficiaries through their position on the Advisory or Steering Committees of other companies of the Telefónica Group, regardless of the effective attendance of the board member such Committee meetings.

⁶ Other concepts: This includes, among others, the amounts received as remuneration in kind (general medical and dental coverage and vehicle insurance), paid by other companies of the Telefónica Group. Also included are the amounts received for membership of the Advisory Boards of Telefónica España, Telefónica Hispanoamérica, Telefónica Tech and Telefónica Ingeniería de Seguridad.

Additionally, as mentioned in the Remuneration Policy section, the Executive Board Members have a series of Assistance Services. Below, the contributions made during 2022 are detailed for the Company to long-term savings systems (Pension Plans and Social Welfare Plan):

LONG-TERM SAVINGS SYSTEMS

(Amounts in euros)

Directors	Contributions for fiscal year 2022
Mr. José María Álvarez-Pallete López	673,085
Mr. Ángel Vilá Boix	560,000

The breakdown of the long-term saving systems includes contributions to Pension Plans, to the Benefit Plan and to the Unit link-type Insurance, as set out below:

(Amounts in euros)

Directors	Contribution to Pension Plans	Contribution to Executive Social Welfare Plan ¹	Contributions to Unit link-type Insurance/Pension Plan Surplus ²
Mr. José María Álvarez-Pallete López	7,574	540,968	124,543
Mr. Ángel Vilá Boix	6,721	487,840	65,439

¹. Contributions to the Executive Social Welfare Plan established in 2006, financed exclusively by the Company, to complement the current Pension Plan, which involves defined contributions equivalent to a certain percentage of the fixed remuneration of the Director, depending on the professional levels in the organization of the Telefónica Group.

². Contributions to Unit link-type Insurance/Pension Plan Surplus: In 2015 and 2021, applicable law reduced the financial and tax limits of the contributions to Pension Plans; for this reason, in order to compensate for the difference in favor of the Beneficiaries, a Unit-link type group insurance policy was arranged to channel such differences that occur during each fiscal year.

This Unit-link type insurance is arranged with the entity Plus Ultra, Seguros Generales y Vida, S.A. de Seguros y Reaseguros (after the merger through absorption of Seguros de Vida y Pensiones Antares, S.A.U. by Plus Ultra), and covers the same contingencies as those of the "Pension Plan" and the same exceptional liquidity events in case of serious illness or long-term unemployment.

The 2022 amounts for life insurance premiums were as follows:

LIFE INSURANCE PREMIUMS

(Amounts in euros)

Directors	Life insurance premiums
Mr. José María Álvarez-Pallete López	74,699
Mr. Ángel Vilá Boix	58,820

REMUNERATION PLANS BASED ON SHARES

As regards to remuneration plans based on shares (involving Executive Directors), the following long-term variable remuneration plans were in existence during the year 2022:

The so-called **Performance Share Plan ("PSP")**, made up of three cycles (2018-2021; 2019-2022; 2020-2023), approved by the General Shareholders' Meeting held on June 8, 2018.

The maximum number of Telefónica shares to be delivered depends (i) 50% of the compliance with the targets set out for Total Shareholder Return ("TSR") on Telefónica, S.A. shares with respect to the TSRs of a comparison group of companies in the telecommunications sector weighted according to their relevance to Telefónica, and (ii) 50%, of the Free Cash Flow (the "FCF") of the Telefónica Group.

The target measurement period for the First Cycle started on January 1, 2018 and ended on December 31, 2020, resulting in a weighted payout ratio of 50%. Notwithstanding the foregoing, the Executive Chairman stated to the Nominating, Compensation and Corporate Governance Committee, at its meeting of February 23, 2021, that he considered it appropriate to propose his waiver of the incentive, as a gesture of responsibility towards the company, customers, shareholders and employees of Telefónica, as well as a measure of prudence following the economic effects derived from COVID-19. The CEO expressed the same view. The resignation was accepted by the Board of Directors.

The target measurement period for the Second Cycle started on January 1, 2019 and ended on December 31, 2021, resulting in a weighted payout ratio of 50%. The evaluation of the degree of compliance was carried out on the basis of the evolution of the share price, as well as the audited results of the Company. Thus, at the end of the Plan's Second Cycle, Executive Directors received 234,000 gross shares in the case of the Executive Chairman, Mr. José María Álvarez-Pallete López, and 173,500 gross shares in the case of the Chief Operating Officer (C.O.O.) Mr. Ángel Vilá Boix.

The target measurement period of the Third and last Cycle started on January 1, 2020 and ended on December 31, 2022.

This Cycle had a maximum of 465,000 shares allocated on January 1, 2020, to the executive Directors, with a unit fair value of 3.2136 euros per share for FCF ("Free Cash Flow") and 1.6444 euros for TSR ("Total Shareholder Return"). At the end of the cycle date, Kepler has submitted the Nominating, Compensation and Good Governance Committee the calculation of Total Shareholder Return for Telefónica, S.A., which has concluded below the median according to the performance scale. Therefore, there is no right to perceive the number of shares linked to the relative TSR objective.

With respect to Free Cash Flow objective, considering the partial fulfillment of 2020, 2021 and 2022, the average weighted payment coefficient is 50%. Performance assessment has been carried out based on the results audited both by independent and internal auditors of the Company, analyzed firstly by the Audit and Control Committee and subsequently submitted to the Nominating, Compensation and Corporate Governance Committee and approved by the Board of Directors.

Thus, at the end of the Plan's Third and last Cycle, Executive Directors are entitled to receive 133,500 gross shares in the case of the Executive Chairman, Mr. José María Álvarez-Pallete López, and 99,000 gross shares in the case of the Chief Operating Officer (C.O.O.) Mr Ángel Vilá Boix.

On the other hand, the denominated **Performance Share Plan (PSP), consisting of three cycles (2021-2024; 2022- 2025; 2023-2026)**, approved by the Ordinary General Meeting of Shareholders held on April 23, 2021, was also in force during the financial year 2022.

There were two Cycles of the Plan in force during the 2022 financial year. The First Cycle, which started on January 1, 2021 and will end on December 31, 2023. If targets are met, the shares will be delivered in 2024. And the Second Cycle, which started on January 1, 2022 and will end on December 31, 2024. If targets are met, the shares will be delivered in 2025.

In both Cycles, the number of Telefónica, S.A. shares that, within the established maximum, could be delivered, as the case may be, to the Participants, is conditioned and is determined based on the compliance of the established targets: 50% of the compliance of the Total Shareholder Return objective (the TSR) of the Telefónica, S.A. share, 40% of the generation of Free Cash Flow of the Telefónica Group (the FCF), and 10% of the Neutralization of CO2 Emissions.

To determine compliance with the TSR target and calculate the specific number of shares to be delivered for this concept, the performance of the TSR on Telefónica, S.A.'s shares will be measured during the measurement period of each three-year cycle, in relation to the TSRs experienced by certain companies in the telecommunications sector, weighted according to their relevance to Telefónica, S.A., which for purposes of the Plan will constitute a comparison group (hereinafter the "Comparison Group"). The companies included in the Comparison Group are listed below: América Móvil, BT Group, Deutsche Telekom, Orange, Telecom Italia, Vodafone Group, Proximus, Koninklijke KPN, Millicom, Swisscom, Telenor, TeliaSonera, TIM Brasil, and Liberty Global.

With regard to complying with the TSR objective, the Plan will foresee that the number of shares to be delivered associated with meeting this objective will range from 15% of the number of theoretical shares assigned, assuming that the TSR performance of Telefónica, S.A. shares is at least the median of the comparison group, to 50% if the performance is in the third quartile or above in the Comparison Group, with the percentage calculated by linear interpolation for cases falling between the median and third quartile.

In order to determine the compliance with the FCF objective and calculate the specific number of shares to be delivered for this concept, the FCF level generated by the Telefónica Group during each year will be measured and compared to the value set in the budgets approved by the Board of Directors for each financial year.

With regard to the FCF, for each of the two cycles in force during the fiscal year 2022, the Board of Directors, at the proposal of the Appointments, Remunerations and Corporate Governance Committee, determined a scale of achievement that includes a minimum threshold of 90% compliance, below which no incentive is paid and compliance with which will entail the delivery of 20% of the theoretical shares assigned, and a maximum level of 100% compliance, which will entail the delivery of 40% of the theoretical shares assigned.

To determine compliance with the CO2 Emissions Neutralization target and calculate the specific number of shares to be delivered for this item, the level of CO2 emissions neutralization achieved at the end of the cycle will be measured, with the incentive being paid upon reaching a certain level of scope 1 + 2 emissions reduction.

The level of direct and indirect CO2 emissions from our daily activity shall be calculated according to the following:

CO2 Emission = Activity x Emission Factor, where:

- Activity: Amount of energy, fuel, gas, etc. consumed by the Company.
- Emission Factor: Amount of CO2 emitted to the atmosphere by the consumption of each unit of activity.

The emission factor provided by official sources (European Union, Ministries, CNMC, etc.) is used for electricity and the GHG Protocol emission factors are used for fuels.

At the beginning of both cycles, the Board of Directors, at the proposal of the Appointments, Remunerations and Corporate Governance Committee, determined a scale of achievement that includes a minimum threshold of 90% compliance, below which no incentive is paid and compliance with which will entail the delivery of 5% of the theoretical shares assigned, and a maximum level of 100% compliance, which will entail the delivery of 10% of the theoretical shares assigned. In addition, a minimum level of emission reductions of Scope 1 + 2 will need to be achieved for the incentive to be paid.

In any case, 100% of the shares delivered under the Plan to the Executive Directors and other Participants as determined by the Board of Directors shall be subject to a two-year holding period.

In addition, in accordance with the provisions of the Remuneration Policy for Directors of Telefónica, SA, the Executive Directors must maintain (directly or indirectly) a number of shares (including those delivered as remuneration) equivalent to two years of their Gross Fixed Remuneration, as long as they continue to belong to the Board of Directors and perform executive functions. Until such time as this requirement is met, the holding period for any shares delivered under the Plan to Executive Directors will be three years.

The maximum number of allocated shares to be delivered in the event of maximum compliance with the TSR (Total Shareholder Return), FCF (Free Cash Flow) and CO2 Emission Neutralization targets set for the First and Second Cycle of the Plan is shown below.

PSP - First Cycle / 2021-2024

Directors	Maximum number of shares (*)
Mr. José María Álvarez-Pallete López	1,094,000
Mr. Ángel Vilá Boix	819,000

(*) Maximum possible number of shares to be received in case of maximum completion of TSR, FCF and Neutralization of CO2 Emissions target.

In any case, it is noted that no shares have been delivered to Executive Directors under the first cycle of the PSP and that the above table only reflects the number of potentially deliverable shares, without in any way implying that all or part of the shares will actually be delivered.

PSP - Second Cycle / 2022-2025

Directors	Maximum number of shares (*)
Mr. José María Álvarez-Pallete López	995,000
Mr. Ángel Vilá Boix	745,000

(*) Maximum possible number of shares to be received in case of maximum completion of TSR, FCF and Neutralization of CO2 Emissions target.

In any case, it is noted that no shares have been delivered to Executive Directors under the second cycle of the PSP and that the above table only reflects the number of potentially deliverable shares, without in any way implying that all or part of the shares will actually be delivered.

On the other hand, Telefónica, S.A. General Meeting of Shareholders held on April 8, 2022, approved a new Global Telefónica, S.A. Incentive Share Purchase Plan for Telefónica Group Employees, in which the Executive Directors participate as a token of their commitment to the Company and in order to encourage other employees to participate in the Global Plan. The Plan will end in March 2024, and the maximum amount that each employee can allocate to it is 1,800 euros.

In addition, it should be noted that the external directors of the company do not perceive nor have perceived remuneration during the year 2022 in concept of pensions or life insurance, nor do they participate in compensation plans referenced to the value of the share price.

Furthermore, the company does not grant nor has granted during the year 2022, an advance, loan or credit in favor of its Board Members or its Senior Management, complying with the requirements of the Sarbanes-Oxley Act published in the United States, which is applicable to Telefónica as a listed company in this market.

Remuneration of the Company's Senior Management

As for the Directors who made up the Senior Management¹ of the company in the year 2022, excluding those who form an integral part of the Board of Directors, have accrued a total amount of 9,381,900 euros during the 2022 fiscal year.

In addition, and in terms of long-term savings systems, the contributions made by the Telefónica Group during the year 2022 to the Social Security Plan described in the "Income and expenditure" note with regard to these directors increased to 943,754 euros; the contributions corresponding to the Pension Plan increased to 214,600 euros; the contributions to the Seguro Unit link-Excess Pension Fund increased to 112,712 euros.

Furthermore, the amount related to the remuneration in kind (which includes the fees for life insurance and other insurance, such as the general medical and dental coverage, and vehicle insurance) was 185,657 euros.

On the other hand, regarding share-based remuneration plans, during the year 2022, there were in force the following long-term variable remuneration plans:

The so-called **"Performance Share Plan" ("PSP"), made up of three cycles (2018-2021; 2019-2022; 2020-2023)**, approved by the General Shareholders' Meeting held on June 8, 2018.

The target measurement period of the First Cycle started on January 1, 2018 and ended on December 31, 2020, resulting in a weighted payment coefficient of 50%. Consequently, the number of shares corresponding to the First Cycle (2018-2021) of the Performance Share Plan that were delivered in the 2021 financial year to the Company's Senior Executives amounted to 220,085 gross shares.

The target measurement period of the Second Cycle started on January 1, 2019 and ended on December 31, 2021, resulting in a weighted payment coefficient of 50%. Consequently, the number of shares corresponding to the Second Cycle (2019-2022) of the Performance Share Plan that were delivered in the 2022 financial year to the Company's Senior Executives amounted to 256,246 gross shares.

The target measurement period of the Third and last Cycle started on January 1, 2020 and ended on December 31, 2022. This cycle had a maximum of 316,762 shares allocated on January 1, 2020 to the group of directors forming part of the Company's Senior Management, with a unit fair value of 3.2136 euros per share for FCF and 1.6444 euros for TSR. At the end of the cycle date, Kepler has submitted the Nominating, Compensation and Good Governance Committee the calculation of TSR for Telefónica, S.A., which has concluded below the median according to the performance scale. Therefore, there is no right to perceive the number of shares linked to the relative TSR objective.

With respect to Free Cash Flow objective, considering the partial fulfillment of 2020, 2021 and 2022, the average weighted payment coefficient is 50%. Performance assessment has been carried out based on the results audited both by independent and internal auditors of the Company, analyzed firstly by the Audit and Control Committee and subsequently submitted to the Nominating, Compensation and Corporate Governance Committee and approved by the Board of Directors.

Thus, at the end of the Third Cycle (2020-2023) of the Performance Share Plan, the Company's Senior Executives are entitled to receive 158,381 gross shares.

On the other hand, the **Performance Share Plan (PSP), consisting of three cycles (2021-2024; 2022-2025; 2023- 2026)**, approved by the Ordinary General Meeting of Shareholders held on April 23, 2021, was also in force during the financial year 2022.

The target measurement period of the First Cycle started on January 1, 2021 and will end on December 31, 2023. The maximum number of shares allocated to be delivered in 2023 in the event of maximum compliance with the TSR (Total Shareholder Return), FCF (Free Cash Flow) and CO2 Emission Neutralization targets set for the First Cycle (2021-2024) for all the Company's Senior Executives was 1,333,081.

The target measurement period of the Second Cycle started on January 1, 2022 and will end on December 31, 2024. The maximum number of shares allocated to be delivered in 2025 in the event of maximum compliance with the TSR (Total Shareholder Return), FCF (Free Cash Flow) and CO2 Emission Neutralization targets set for the Second Cycle (2022-2025) for all the Company's Senior Executives was 1,241,015.

1

On the other hand, Telefónica, S.A. General Meeting of Shareholders held on April 8, 2022, approved a new Global Telefónica, S.A. Incentive Share Purchase Plan for Telefónica Group Employees, in which the Senior Management participate as a token of their commitment to the Company and in order to encourage other employees to participate in the Plan. The Plan will end in March 2024, and the maximum amount that each employee can allocate to it is 1,800 euros.

¹For these purposes, Senior Management is understood to be those persons who perform, de jure or de facto, senior management functions reporting directly to the Board of Directors or Executive Committees or Managing Directors of the Company, including, in all cases, the person responsible for Internal Audit.

Appendix III: Debentures and bonds

The detail and key features of outstanding debentures and bonds at December 31, 2022 are as follows (in millions of euros):

Total Telefónica and its instrumental companies

Debentures and bonds	Currency	% Interest rate	Maturity (nominal)					Subsequent years	Total
			2023	2024	2025	2026	2027		
T. EUROPE BV SEP_00 BOND GLOBAL D	USD	8.250 %	—	—	—	—	—	1,148	1,148
TEBV FEB_03 EMTN FIXED TRANCHE B	EUR	5.875 %	—	—	—	—	—	500	500
Telefónica Europe, B.V.			—	—	—	—	—	1,648	1,648
TELEF. EMISIONES JANUARY 2013	EUR	3.987 %	1,277	—	—	—	—	—	1,277
TELEF. EMISIONES FEBRUARY 2019 (1)	EUR	1.069 %	—	1,000	—	—	—	—	1,000
TELEF. EMISIONES JANUARY 2017	EUR	1.528 %	—	—	1,127	—	—	—	1,127
TELEF. EMISIONES SEPTEMBER 2018	EUR	1.495 %	—	—	892	—	—	—	892
EMTN O2 GBP	GBP	5.375 %	—	—	—	564	—	—	564
TELEF. EMISIONES APRIL 2016	EUR	1.460 %	—	—	—	1,279	—	—	1,279
TELEF. EMISIONES JANUARY 2018	EUR	1.447 %	—	—	—	—	1,000	—	1,000
TELEF. EMISIONES MARCH 2017	USD	4.103 %	—	—	—	—	1,405	—	1,405
TELEF. EMISIONES MAY 2020	EUR	1.201 %	—	—	—	—	1,250	—	1,250
TELEF. EMISIONES JANUARY 2017	EUR	2.318 %	—	—	—	—	—	500	500
TELEF. EMISIONES SEPTEMBER 2017	EUR	1.715 %	—	—	—	—	—	1,250	1,250
TELEF. EMISIONES MARCH 2017	EUR	2.318 %	—	—	—	—	—	200	200
TELEF. EMISIONES MARCH 2019	EUR	1.788 %	—	—	—	—	—	1,000	1,000
EMTN GBP 10/08/2029 400 GBP	GBP	5.445 %	—	—	—	—	—	451	451

Total Telefónica and its instrumental companies (cont.)

Debentures and bonds	Currency	% Interest rate	Maturity (nominal)					Subsequent years	Total
			2023	2024	2025	2026	2027		
TELEF. EMISIONES OCTOBER 2014	EUR	2.932 %	—	—	—	—	—	800	800
TELEF. EMISIONES FEBRUARY 2020	EUR	0.664 %	—	—	—	—	—	1,000	1,000
TELEF. EMISIONES MAY 2022 (2)	EUR	2.592 %	—	—	—	—	—	1,000	1,000
TELEF. EMISIONES OCTOBER 2016	EUR	1.930 %	—	—	—	—	—	750	750
TELEF. EMISIONES MAY 2020	EUR	1.807 %	—	—	—	—	—	750	750
TELEF. EMISIONES JUNE 06 TRANCHE D	USD	7.045 %	—	—	—	—	—	1,874	1,874
TELEF. EMISIONES APRIL 2017	USD	4.900 %	—	—	—	—	—	187	187
TELEF. EMISIONES MARCH 2018	USD	4.665 %	—	—	—	—	—	703	703
TELEF. EMISIONES JULY 2019	EUR	1.957 %	—	—	—	—	—	500	500
TELEF. EMISIONES JULY 2020	EUR	1.864 %	—	—	—	—	—	500	500
TELEF. EMISIONES APRIL 2022	EUR	1.864 %	—	—	—	—	—	100	100
TELEF. EMISIONES MARCH 2017	USD	5.213 %	—	—	—	—	—	1,874	1,874
TELEF. EMISIONES APRIL 2017	USD	5.213 %	—	—	—	—	—	468	468
TELEF. EMISIONES MARCH 2018	USD	4.895 %	—	—	—	—	—	1,171	1,171
TELEF. EMISIONES MARCH 2019	USD	5.520 %	—	—	—	—	—	1,171	1,171
TELEF. EMISIONES DECEMBER 2016	EUR	4.000 %	—	—	—	—	—	150	150
Telefónica Emisiones, S.A.U.			1,277	1,000	2,019	1,843	3,655	16,399	26,193
Total Telefónica, S.A. and its instrumental companies			1,277	1,000	2,019	1,843	3,655	18,047	27,841

Foreign operators

Debentures and bonds	Currency	% Interest rate	Maturity					Subsequent years	Total
			2023	2024	2025	2026	2027		
Bond T	CLP	4.900 %	21	—	—	—	—	—	21
Telefónica Chile, S.A.			21	—	—	—	—	—	21
Bond F	UFC	3.600 %	115	—	—	—	—	—	115
Bond O	CLP	3.500 %	—	—	77	—	—	—	77
Bond Q	CLP	3.600 %	—	—	—	99	—	—	99
Bond 144 A	USD	3.537 %	—	—	—	—	—	468	468
Telefónica Móviles Chile, S.A.			115	—	77	99	—	468	759
Bond T. Peru 4th Program (19th Serie A)	N. SOL	VAC + 3.6250%	—	—	—	—	25	—	25
Bond T. Peru 4th Program (19th Serie B)	N. SOL	VAC + 2.8750%	—	—	—	—	—	20	20
Bond T. Peru 4th Program (37th Serie A)	N. SOL	VAC + 3.1250%	—	—	—	—	—	19	19
Bond T. Peru 4th Program (19th Serie C)	N. SOL	VAC + 3.1875%	—	—	—	—	—	8	8
Bond T. Peru 6th Program (17th Serie A)	N. SOL	VAC + 3.0938%	—	—	—	—	—	18	18
Bond T. Peru 6th Program (11th Serie A)	N. SOL	6.656 %	64	—	—	—	—	—	64
Bond T. Peru 6th Program (11th Serie B)	N. SOL	6.188 %	—	29	—	—	—	—	29
Bond T. Peru 6th Program (15th Serie A)	N. SOL	5.469 %	—	33	—	—	—	—	33
Bond T. Peru 6th Program (16th Serie A)	N. SOL	5.500 %	—	—	26	—	—	—	26
Bond T. Peru 1st Private Program (1st Serie A)	N. SOL	7.281 %	—	—	—	20	—	—	20
Bond T. Peru 1st Program International Issue (1sr Serie A)	N. SOL	7.375 %	—	—	139	139	139	—	417
Telefónica del Perú, S.A.			64	62	165	159	164	65	679
Debentures ⁽²⁾	BRL	CDI + 1.12%	—	—	269	—	—	—	269
Debentures ⁽²⁾	BRL	CDI + 1.35%	—	—	—	—	359	—	359
Telefônica Brasil, S.A.			—	—	269	—	359	—	628
BOND R144-A	USD	4.950 %	—	—	—	—	—	469	469
Bond A5	COP	6.650 %	—	68	—	—	—	—	68
Bond C10	COP	IPC + 3.39%	—	—	—	—	—	30	30
Colombia Telecomunicaciones, S.A, ESP			—	68	—	—	—	499	567
Bond	EUR	1.750 %	—	—	600	—	—	—	600
O2 Telefónica Deutschland Finanzierungs, GmbH			—	—	600	—	—	—	600
Total Outstanding Debentures and Bonds Foreign operators			200	130	1,111	258	523	1,032	3,254
Total Outstanding Debentures and Bonds			1,477	1,130	3,130	2,101	4,178	19,079	31,095

⁽¹⁾ Debentures and green bonds (See Note 29.d)

⁽²⁾ Debentures and sustainable bonds (See Note 29.d)

The main debentures and bonds issued by the Group in 2022 are as follows:

Item	Date	Maturity Date	Nominal (millions)		Currency of issuance	Coupon
			Currency	Euros		
Telefónica Emisiones, S.A.U.						
EMTN Bond	04/05/2022	07/13/2040	100	100	EUR	1.864 %
EMTN Bond ⁽¹⁾	05/25/2022	05/25/2031	1,000	1,000	EUR	2.592 %
Telefónica Brasil, S.A.						
Debentures ⁽¹⁾	07/14/2022	07/12/2027	2,000	359	BRL	1.35% CDI
Debentures ⁽¹⁾	07/14/2022	07/12/2025	1,500	269	BRL	1.12% CDI

⁽¹⁾ Debentures and sustainable bonds (See Note 29. d)

Appendix IV: Financial instruments

The detail of the net financial debt arranged by the Group (notional amount) by currency and interest rates at December 31, 2022 is as follows:

Millions of euros	2023	2024	2025	2026	2027	Subsequent years	Notional	Fair value		TOTAL
								Underlying debt ⁽¹⁾	Associated derivatives	
Euro	(8,499)	1,066	2,500	3,707	4,020	17,344	20,138	12,461	8,254	20,715
Floating rate	1,933	38	(87)	1,770	206	5,095	8,955	1,079	12,129	13,208
Spread	0.04%	0.73%	—	(0.12%)	(0.56%)	0.05%	—	—	—	—
Fixed rate	(10,432)	1,028	2,587	1,937	3,814	12,249	11,183	11,382	(3,875)	7,507
Interest rate	1.29%	2.80%	1.62%	2.25%	1.13%	1.80%	2.17%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Other european currencies										
Instruments in CZK	(87)	—	—	—	—	—	(87)	—	(86)	(86)
Floating rate	—	—	—	—	—	—	—	—	—	—
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	(87)	—	—	—	—	—	(87)	—	(86)	(86)
Interest rate	6.17%	—	—	—	—	—	6.17%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in GBP	610	—	—	(2)	(6)	(4)	598	922	(325)	597
Floating rate	—	—	—	—	—	—	—	—	(1)	(1)
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	610	—	—	(2)	(6)	(4)	598	922	(324)	598
Interest rate	3.49%	—	—	0.70%	0.70%	0.70%	3.54%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in CHF	(1)	—	—	—	—	—	(1)	—	—	—
Floating rate	—	—	—	—	—	—	—	—	—	—
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	(1)	—	—	—	—	—	(1)	—	—	—
Interest rate	—	—	—	—	—	—	—	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
America										
Instruments in USD	(982)	49	—	(1,878)	—	1,874	(937)	13,038	(13,937)	(899)
Floating rate	(7)	141	—	(1,874)	—	1,874	134	329	(154)	175
Spread	—	0.47%	—	—	—	—	0.49%	—	—	—
Fixed rate	(975)	(92)	—	(4)	—	—	(1,071)	12,709	(13,783)	(1,074)
Interest rate	2.18%	3.23%	—	1.55%	—	—	2.27%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in UYU	(15)	97	—	29	—	—	111	119	(4)	115
Floating rate	—	—	—	—	—	—	—	—	—	—
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	(15)	97	—	29	—	—	111	119	(4)	115
Interest rate	1.85%	9.39%	—	8.90%	—	—	10.26%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—

Millions of euros	2023	2024	2025	2026	2027	Subsequent years	Notional	Fair value		TOTAL
								Underlying debt ⁽¹⁾	Associated derivatives	
Instruments in ARS	(222)	(4)	—	—	—	—	(226)	(232)	—	(232)
Floating rate	—	—	—	—	—	—	—	—	—	—
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	(222)	(4)	—	—	—	—	(226)	(232)	—	(232)
Interest rate	61.15%	—	—	—	—	—	60.06%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in BRL	2,125	17	796	8	367	99	3,412	868	2,610	3,478
Floating rate	(220)	17	796	8	367	99	1,067	827	271	1,098
Spread	(0.57%)	—	0.38%	—	1.32%	—	0.85%	—	—	—
Fixed rate	2,345	—	—	—	—	—	2,345	41	2,339	2,380
Interest rate	10.86%	—	—	—	—	—	10.86%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in CLP	428	116	184	99	—	460	1,287	(234)	1,523	1,289
Floating rate	(19)	—	—	—	—	460	441	(21)	476	455
Spread	—	—	—	—	—	(0.50%)	(0.52%)	—	—	—
Fixed rate	447	116	184	99	—	—	846	(213)	1,047	834
Interest rate	4.84%	2.55%	3.30%	3.60%	—	—	4.04%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in UFC	—	—	—	—	—	—	—	115	(106)	9
Floating rate	—	—	—	—	—	—	—	115	(106)	9
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	—	—	—	—	—	—	—	—	—	—
Interest rate	—	—	—	—	—	—	—	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in PEN	294	63	165	159	139	—	820	474	349	823
Floating rate	16	—	—	—	—	—	16	16	—	16
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	278	63	165	159	139	—	804	458	349	807
Interest rate	8.36%	5.81%	7.08%	7.36%	7.38%	—	7.53%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in VAC	—	—	—	—	25	64	89	89	—	89
Floating rate	—	—	—	—	25	64	89	89	—	89
Spread	—	—	—	—	3.63%	3.05%	3.21%	—	—	—
Fixed rate	—	—	—	—	—	—	—	—	—	—
Interest rate	—	—	—	—	—	—	—	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in COP	(13)	131	219	5	5	459	806	339	483	822
Floating rate	9	63	(248)	5	5	429	263	335	(62)	273
Spread	—	1.23%	(2.01%)	—	—	0.30%	2.66%	—	—	—
Fixed rate	(22)	68	467	—	—	30	543	4	545	549
Interest rate	7.35%	6.65%	3.19%	—	—	8.09%	3.72%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
Instruments in VEB	(20)	—	—	—	—	—	(20)	(20)	—	(20)
Floating rate	—	—	—	—	—	—	—	—	—	—
Spread	—	—	—	—	—	—	—	—	—	—
Fixed rate	(20)	—	—	—	—	—	(20)	(20)	—	(20)
Interest rate	—	—	—	—	—	—	—	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—

Millions of euros	2023	2024	2025	2026	2027	Subsequent years	Notional	Fair value		TOTAL
								Underlying debt ^(c)	Associated derivatives	
Instruments in MXN	163	(246)	—	87	—	—	4	(240)	227	(13)
Floating rate	24	—	—	—	—	—	24	15	—	15
Spread	0.84%	—	—	—	—	—	0.84%	—	—	—
Fixed rate	139	(246)	—	87	—	—	(20)	(255)	227	(28)
Interest rate	10.66%	9.70%	—	8.80%	—	—	6.88%	—	—	—
Rate cap	—	—	—	—	—	—	—	—	—	—
TOTAL							25,994	27,699	(1,012)	26,687
Floating rate							10,989	2,784	12,553	15,337
Fixed rate							15,005	24,915	(13,565)	11,350

^(c) Includes all net financial debt adjustments

The table below shows the sensitivity to interest rates originated by our position on interest rate swaps categorized into instruments entered into for trading purposes and instruments entered into for purposes other than trading at December 31, 2022:

Interest rate swaps

Millions of euros	Maturity					Subsequent years	Total	Fair value
	2023	2024	2025	2026	2027			
Non trading accountant purposes								
EUR								482
Fixed to floating	—	—	—	—	—	—	—	595
Receiving leg	(2,974)	(1,778)	(1,195)	(1,215)	(325)	(3,632)	(11,119)	(7,894)
Average Interest Rate	1.50%	1.54%	1.07%	1.29%	0.86%	1.16%	1.31%	—
Paying leg	2,974	1,778	1,195	1,215	325	3,632	11,119	8,489
Average Spread	0.46%	0.29%	0.45%	—	—	—	0.22%	—
Floating to fixed	—	—	—	—	—	—	—	(113)
Receiving leg	(715)	(470)	(50)	(477)	(245)	(1,187)	(3,144)	(3,148)
Average Spread	—	—	—	—	—	—	—	—
Paying leg	715	470	50	477	245	1,187	3,144	3,035
Average Interest Rate	0.10%	1.26%	0.65%	0.71%	1.22%	2.75%	1.46%	—
USD								(19)
Fixed to floating	—	—	—	—	—	—	—	1
Receiving leg	(319)	(159)	—	—	—	—	(478)	(161)
Average Interest Rate	1.74%	3.55%	—	—	—	—	2.34%	—
Paying leg	319	159	—	—	—	—	478	162
Average Spread	1.77%	—	—	—	—	—	1.18%	—
Floating to fixed	—	—	—	—	—	—	—	(20)
Receiving leg	(703)	(159)	—	—	—	—	(862)	(869)
Average Spread	—	—	—	—	—	—	—	—
Paying leg	703	159	—	—	—	—	862	849
Average Interest Rate	0.24%	2.52%	—	—	—	—	0.66%	—

Interest rate swaps

Millions of euros	Maturity						Subsequent years	Total	Fair value
	2023	2024	2025	2026	2027				
Trading accountant purposes									
EUR									(1,292)
Fixed to floating	—	—	—	—	—	—	—	—	175
Receiving leg	(1,500)	—	(125)	—	(100)	(2,925)	(4,650)	(4,476)	
Average Interest Rate	1.54%	—	0.32%	—	0.76%	2.18%	1.89%	—	
Paying leg	1,500	—	125	—	100	2,925	4,650	4,651	
Average Spread	—	—	—	—	—	—	—	—	
Floating to fixed	—	—	—	—	—	—	—	—	(1,467)
Receiving leg	—	—	(354)	—	(1,604)	(6,608)	(8,566)	(8,291)	
Average Spread	—	—	0.44%	—	—	—	0.02%	—	
Paying leg	—	—	354	—	1,604	6,608	8,566	6,824	
Average Interest Rate	—	—	0.44%	—	0.88%	1.23%	1.13%	—	
USD									756
Fixed to floating	—	—	—	—	—	—	—	—	756
Receiving leg	(822)	(83)	(423)	(3,757)	(4,590)	(9,532)	(19,207)	(11,396)	
Average Interest Rate	1.85%	2.36%	1.30%	2.79%	1.63%	3.16%	2.62%	—	
Paying leg	822	83	423	3,757	4,590	9,532	19,207	12,152	
Average Spread	—	—	1.03%	2.78%	0.92%	—	0.79%	—	
GBP									16
Fixed to floating	—	—	—	—	—	—	—	—	16
Receiving leg	—	—	—	—	—	(451)	(451)	(434)	
Average Interest Rate	—	—	—	—	—	3.42%	3.42%	—	
Paying leg	—	—	—	—	—	451	451	450	
Average Spread	—	—	—	—	—	—	—	—	

Millions of euros	Maturity						Subsequent years	Total	Fair value
	2023	2024	2025	2026	2027				
Trading accountant purposes									
CLP									(9)
Fixed to floating	—	—	—	—	—	—	—	—	—
Receiving leg	(3)	—	—	—	—	—	(3)	(3)	
Average Interest Rate	4.90%	—	—	—	—	—	4.90%	—	
Paying leg	3	—	—	—	—	—	3	3	
Average Spread	1.27%	—	—	—	—	—	1.27%	—	
Floating to fixed	—	—	—	—	—	—	—	—	(9)
Receiving leg	(127)	—	—	—	—	—	(127)	(130)	
Average Spread	—	—	—	—	—	—	—	—	
Paying leg	127	—	—	—	—	—	127	121	
Average Interest Rate	1.54%	—	—	—	—	—	1.54%	—	
COP									(106)
Fixed to floating	—	—	—	—	—	—	—	—	10
Receiving leg	—	—	(58)	—	—	—	(58)	(50)	
Average Interest Rate	—	—	5.77%	—	—	—	5.77%	—	
Paying leg	—	—	58	—	—	—	58	60	
Average Spread	—	—	1.07%	—	—	—	1.07%	—	
Floating to fixed	—	—	—	—	—	—	—	—	(116)
Receiving leg	—	—	(467)	—	—	(30)	(497)	(507)	
Average Spread	—	—	—	—	—	3.39%	0.20%	—	
Paying leg	—	—	467	—	—	30	497	391	
Average Interest Rate	—	—	3.19%	—	—	8.09%	3.48%	—	

Cash flows receivable or payable on derivative financial instruments to be settled via the swap of nominals, categorized by currency of collection/payment, along with contractual maturities are as follows:

Millions of euros		2023	2024	2025	2026	2027	Subsequent years	Total
Currency swaps								
Receive	BRL	30	—	—	—	—	—	30
Pay	BRL	(282)	—	—	—	—	—	(282)
Receive	CLP	76	—	—	—	—	—	76
Pay	CLP	(335)	—	—	—	—	(460)	(795)
Receive	COP	—	—	367	—	—	—	367
Pay	COP	—	—	(367)	—	—	(367)	(734)
Receive	EUR	1,536	—	—	—	2,542	—	4,078
Pay	EUR	(673)	(80)	(46)	(2,352)	(3,966)	(6,907)	(14,024)
Receive	GBP	—	—	—	564	—	451	1,015
Pay	GBP	—	—	—	—	—	—	—
Receive	JPY	—	—	—	—	—	107	107
Pay	JPY	—	—	—	—	—	—	—
Receive	UFC	231	—	—	—	—	—	231
Pay	UFC	(115)	—	—	—	—	—	(115)
Receive	USD	1,297	83	517	1,883	3,934	7,659	15,373
Pay	USD	(1,665)	—	(468)	—	(2,529)	—	(4,662)
TOTAL		100	3	3	95	(19)	483	665

The largest volume of cash flows collected in this table falls into the following currency pairs. The average exchange rates to which the settlements have been closed are: EUR/GBP (0.83), EUR/USD (1.13) and USD/COP (3,742.44).

Millions of euros		2023	2024	2025	2026	2027	Subsequent years	Total
Forwards								
Receive	BRL	213	—	—	—	—	—	213
Pay	BRL	(2,587)	—	—	—	—	—	(2,587)
Receive	CLP	25	—	—	—	—	—	25
Pay	CLP	(740)	(28)	—	—	—	—	(768)
Receive	COP	114	—	—	—	—	—	114
Pay	COP	(213)	—	—	—	—	—	(213)
Receive	CZK	87	—	—	—	—	—	87
Pay	CZK	—	—	—	—	—	—	—
Receive	EUR	4,583	—	—	—	—	—	4,583
Pay	EUR	(890)	—	—	—	—	—	(890)
Receive	GBP	24	—	—	—	—	—	24
Pay	GBP	(796)	—	—	—	—	—	(796)
Receive	MXN	—	—	—	—	—	—	—
Pay	MXN	(217)	(19)	—	—	—	—	(236)
Receive	PEN	32	—	—	—	—	—	32
Pay	PEN	(384)	—	—	—	—	—	(384)
Receive	USD	1,919	43	—	—	—	—	1,962
Pay	USD	(1,165)	—	—	—	—	—	(1,165)
Receive	UYU	21	—	—	—	—	—	21
Pay	UYU	(18)	—	—	—	—	—	(18)
TOTAL		8	(4)	—	—	—	—	4

The largest volume of cash flows collected in this table falls into the following currency pairs. The average exchange rates to which the settlements have been closed are: EUR/GBP (0.87), EUR/USD (1.03), USD/COP (4,660.76) and EUR/BRL (5.58).

Appendix V: Interest-bearing debt

The main financing transactions at December 31, 2022 and 2021 and their nominal amounts are as follows:

Descriptive name summary	Current limit (millions)	Currency	Outstanding principal balance		Arrangement date	Maturity date
			12/31/2022	12/31/2021		
(millions of euros)						
Telefónica, S.A						
Structured Financing (*)	12	USD	12	72	02/22/2013	01/31/2023
Structured Financing (*)	27	USD	25	89	08/01/2013	10/31/2023
Structured Financing (*)	238	USD	223	288	12/11/2015	03/11/2026
Structured Financing (*)	161	EUR	161	221	12/11/2015	03/11/2026
Sustainable syndicated (1)	5,500	EUR	—	—	03/15/2018	01/13/2027
Bilateral loan	—	EUR	150	—	09/26/2022	12/15/2032
Bilateral loan	125	EUR	—	—	12/23/2022	06/23/2033
T. Brasil, S.A.						
Bilateral loan	—	USD	199	—	04/04/2022	09/28/2023
Telefónica Germany GmbH & Co. OHG						
EIB Financing	—	EUR	183	258	06/13/2016	06/13/2025
Sustainable syndicated	750	EUR	—	—	12/17/2019	12/17/2026
EIB Financing (Tranche 1)	—	EUR	300	300	12/18/2019	06/18/2029
EIB Financing (Tranche 2)	—	EUR	150	150	01/14/2020	07/14/2029
Colombia Telecomunicaciones, S.A. E.S.P.						
Bilateral loan (2)	—	USD	—	117	03/24/2020	01/26/2022
Bilateral loan	—	COP	97	111	07/06/2021	03/19/2025
Telxius Telecom, S.A.						
Syndicated	300	EUR	201	162	12/01/2017	12/01/2024
Bluevia Fibra S.L.U.						
Syndicated	360	EUR	245	—	11/16/2022	12/20/2027
Telefónica Móviles Chile, S.A.						
Bilateral loan	—	USD	133	124	04/17/2020	09/29/2023

⁽¹⁾ On January 13, 2022 there was maturity extension of the sustainability-linked syndicated loan facility for 5,500 million euros. The loan has two annual extension options at Telefónica, S.A. request with a maturity maximum up to 2029 (see Note 29.d).

⁽²⁾ On January 26, 2022 there was an early repayment for 132 million dollars of the bilateral loan originally scheduled to mature in 2023.

^(*) Facility with amortization schedule, showing in the column "Current limit" the undrawn amount.

Appendix VI: Key regulatory issues and concessions and licenses held by the Telefónica Group

Regulations

As a digital telecommunications operator, the Telefónica Group is subject to sector-specific telecommunications regulations, general competition law and a variety of other regulations, including privacy and security, which can have a direct and material effect on the Group's business areas. The extent to which telecommunications regulations apply to the Telefónica Group depends largely on the nature of its activities in a particular country, with traditional fixed telephony services and fixed broadband usually subject to stricter regulations.

In order to provide services and operate its networks and to use spectrum, the Telefónica Group must obtain general authorizations, concessions and/or licenses from the pertinent authorities in each country in which the Group operates (hereinafter referred to as national regulatory authorities or NRAs). The Group is also required to obtain radio frequency licenses for its mobile operations.

This section describes the legislative framework and the recent legislative key developments in the most relevant countries and regions in which the Group has significant interests. Many of the legislative changes and the adoption of regulatory measures by sector-specific regulators which are described in this section are in the process of being adopted and, therefore, have not yet concluded.

Electronic Communication Regulation in the European Union

By Directive (EU) 2018/1972, of December 11, 2018, the European Code of Electronic Communications (EECC in its acronym in English) was approved by the European Parliament and the Council. The Member States had a period of two years (until December 21, 2020) to transpose it into their national legislation.

The Code includes measures to stimulate investment on very high capacity network (VHCN), modernization of the provisions of the Universal Service and certain changes in the regulation of services with the aim of balancing the supply conditions (Level Playing Field) between telecom operators and OTTs. In addition, some improvements are included for the coordination of spectrum management processes throughout the EU as well as a harmonization of licenses duration up to at least 20 years.

Due to a delay in the transposition of the EECC, the European Commission announced the second stage of infringements proceedings, in the form of a reasoned opinion, against 18 member states, including Spain, on September 21, 2021. On June 28, 2022, the new General Telecommunications Law 11/2022 was finally published in the BOE by which the EECC is transposed into Spanish law.

The Relevant Market Recommendation (RMR) adopted in December 2020, identifies the relevant markets within the electronic communication sector that are susceptible of ex ante regulation by the NRAs. The NRAs should assess the competitive conditions of these markets and where appropriate, designate operators as having significant market power (SMP) and impose obligations. The markets susceptible to ex ante regulation were reduced from 4 to 2: wholesale local access provided at a fixed location market (m1) and wholesale dedicated capacity market (m2). Nevertheless, NRAs are still able to analyze any other market that according to national circumstances might deemed to be uncompetitive.

In relation to the maximum cap at European level for both fixed and mobile termination rates (FTRs/MTRs), since the adoption of a Delegated Act, in April 2021 by the EC, the maximum rates applicable are those included in the correspondent glidepaths and aiming to reach 0.2 euro cents per minute in mobile by 2024 and to 0.07 euro cents per minute in the case of fixed rates.

Additionally, the European Council has approved the Recovery and Resilience Mechanism (RRM), with European funds of 750 billion euros until 2025 as a central pillar of the European Digital Transformation (at least 20% of funds devoted to digitalization) initiatives which can receive support to advance connectivity and the digitalization of society.

Telecom Single Market

EU Regulation 2015/2120 of the EP and of the Council of November 25, 2015, lays down measures basically concerning open Internet access (Net Neutrality) and roaming on public mobile communications networks within the Union.

- **Roaming:** Since June 15, 2017, operators have not been allowed to charge roaming users within the EU additional fees to their domestic prices for roaming calls, SMS and data services (“Roaming Like at Home”). Wholesale maximum rates for voice, data and SMS were also regulated. While current regulation expires on June 30, 2022, on April 13, 2022, the new Regulation on international roaming in the European Union was published in the Official Journal of the EU and being directly binding for Member States as it entered into force on July 1, 2022. From this date the new regulation includes a new glide path for maximum wholesale rates for voice, data and SMS that are not expected to distort the wholesale market. This reviewed regulation also includes new provisions on transparency and Quality of services that might have a moderate impact on implementation costs for roaming providers and network operators.

- **Net Neutrality:** Under the principle of network neutrality applicable to Internet access services area, network operators are not permitted to establish technical or commercial restrictions regarding the devices that can be connected or the services, or applications and contents that can be accessed or distributed through the Internet by the end user. It also refers to the non-discriminatory behavior (e.g. non-anticompetitive) to be adopted by operators regarding the different types of Internet traffic circulating through their networks.

The Body of European Regulators for Electronic Communications (BEREC) has updated the Guidelines on the Implementation of the Open Internet Regulation. Reviewed guidelines prohibit non application agnostic price differentiation, resulting in near prohibition of zero rating and sponsored data commercial practices. Telefonica does not expect a commercial impact in current portfolio of services.

On the other hand, by April 30, 2023, the EC shall submit a report assessing the regulatory implementation of the OIR to the European Parliament and to the Council thereon, accompanied, if necessary, by appropriate proposals with a view to amending this Regulation.

Digital Single Market

Among the most relevant regulatory initiatives we can find the following:

- **Content Package:**

- On November 28, 2018, the **audiovisual Directive (AVMS)** was published in the Official Journal of the European Union. The text came into force on December 19, and had to be transposed into national law in the EU member States by September 19, 2020. In Germany, the transposition of the AVMSD was specified in the Interstate Media Treaty, which entered into force on November 7, 2020. The United Kingdom adopted the AVMS Regulation on September 30, 2020, which was applicable until the formalization of the UK’s exit from the UE. And in Spain, the Draft General Law on Audiovisual Communication was adopted on November 30, 2021. Among the main novelties of the regulation, it includes greater protection of children, limits on advertising and boost to European production. Rules will apply to television channel and also to video-on-demand platforms and distribution of videos, as well as to live broadcasts on these platforms. In particular video sharing platforms will be obliged to reserve at least 30% of European production in their video catalogs on demand. In addition, Member States may impose financing obligations to providers of VOD services established in another Member State but offering services in their countries.

- The **Geo-Blocking Regulation** tries to limit geographically-based restrictions which undermine online shopping and cross-border sales. As a follow-up to the revision of the Geo-Blocking Regulation, the European Commission published an Action Plan to support the recovery and transformation of the audiovisual sector on December 3, 2020. This Plan included a proposal for a dialogue between the European Commission and the audiovisual industry to facilitate access to and availability of audiovisual content across EU borders. Three meetings between the Commission and industry took place during 2021 while the last meeting took place in December 2022. Commissioner Breton might ask to engage further with industry to enhance cross-border access to and availability of audiovisual content across the EU.

European Commission will issue a **Recommendation on combating online piracy of live content in June 2023**. In January the Commission launched a call for data inviting interested parties to submit comments based on their experience and will organize a workshop on February 28, 2023. Telefónica submitted comments to the consultation and will participate in the Workshop, insisting on the need for the European Commission to take specific action in relation to online piracy of live content, building on DSA and Copyright Directive as well as on European Parliament's Resolution of May 2021 on challenges of sports events organizers in the digital environment.

- **Regulations on the Digital Services and the Digital Markets:**

The Digital Services Act 2022/2065 of October 19, 2022 and the Digital Markets Act 2022/1925 of September 14, 2022 were adopted and published in the Official Journal of the EU.

In relation to the new **Digital Services** regulation, obligations will apply throughout the EU to all digital services that connect consumers to goods, services or content, such as:

- Rules on the removal of illegal goods, services or content online.
- Safeguards for users whose contents have been removed by error by the platforms.
- Obligation for the platforms to adopt measures to avoid the abuse of their systems.
- Transparency measures with a wide scope.
- New powers to control the operation of the platforms.
- New rules on the traceability of companies in online markets.
- Cooperation process between authorities to ensure compliance and adoption of measures.

With respect to the **Digital Markets** regulation, whose main goal is preventing the so called "gatekeepers" from imposing unfair conditions on end users and at ensuring the openness of important digital services, its main provisions are:

- It will only apply to the main platform providers more prone to incur in unfair practices and ensuring contestability in a set of core platform services.
- It establishes quantitative thresholds for the designation of "gate keepers".
- It requires "gate keepers" to take action in a proactive manner.
- The regulation foresees mechanisms for the Commission to designate new "gate-keepers" below the thresholds; to add new services and obligations; and to impose structural or behavioral remedies for systematic non-compliance through a market investigation.
- The EC can impose fines of up to 10% of the company's total worldwide annual turnover or 20% in the event of repeated infringements.

On July 5, 2022 the text was finally endorsed by European Parliament and entered into force as of November 1, 2022 (following its publication in the Official Journal on October 12, 2022). After entering application on May 2, 2023, the designation process might last until September and gatekeepers will have up to six months to comply with the requirements in the DMA, at the latest by March 6, 2024.

Data Protection

In relation with Data Protection & Privacy, the new General Data Protection Regulation (GDPR) of April 27, 2016, directly applicable in all member States in Europe from May 25, 2018, introduced administrative fines of up to 4% of an undertaking's annual global turnover of the preceding financial year for breaching the new data protection rules. Spain, Germany and the United Kingdom have adopted implementing measures of this Regulation.

On January 10, 2017, the EC put forward its proposal for a Regulation on ePrivacy, which will replace the current Directive 2002/58/EC on privacy in the electronic communications sector and will complement the GDPR. The EC proposal also introduces administrative fines of up to 4% of an undertaking's annual global turnover of the

preceding financial year for breaching new regulation. The Regulation could be adopted in first half of 2023 under the Swedish Presidency.

On the other hand, on December 13, 2022 European Commission issued a draft Adequacy Decision on a new EU/ US Data Privacy Framework. Since European Court of Justice (ECJ) struck down the Privacy Shield framework in July 2020, EU and US have been working on a new framework for transatlantic data flows, especially after Joe Biden's new Administration entered into office. In March 2022, President of the European Commission Ursula von de Leyen and US President Joe Biden announced an *agreement in principle* for a renewed framework for transatlantic data flows "balancing security and the right to privacy and data protection". This political announcement had to be translated into a legal text. For that, on October 7, 2022 President Biden signed an Executive Order addressing the main concerns raised by ECJ in its Judgement on Schrems II Case (namely, new safeguards to limit US LEAs' and Intelligence Agencies' powers to access personal data of EU citizens and new redress mechanism for non-US persons whose data has been accessed by US Authorities). Taking into account these concrete changes introduced by the Executive Order, European Commission published the draft Adequacy Decision. Commission expects to have the Adequacy Decision adopted by Summer 2023.

Radio spectrum policy

On December 14, 2016, the European institutions reached an agreement on how to coordinate the use of the 700 MHz band facilitating the introduction of 5G as of 2020. Duly justified exceptions on grounds defined in Decision 2017/899/CE were allowed until June 30, 2022. But, the assignment processes were finally completed during 2021, with Telefónica securing 2x10 MHz in each of our European markets' footprint (Germany, Spain and UK).

The European Electronic Communications Code grants the Radio Spectrum Committee (RSC) the powers to harmonize the use of spectrum bands for the provision of electronic communications services and lays down the rules governing the process through which Member States authorize those bands to specific users. It also mandates Member States to allow the use of sufficiently large blocks of the 3400-3800 MHz band, and at least 1 GHz in the 24,25-27,5 GHz band, in order to facilitate the roll-out of 5G.

Assignment processes have been completed across our European footprint in the 3400-3800 MHz band, with Telefónica securing at least 70 MHz in each market (see table at the end for details).

Regarding the 24,25-27,5 GHz band, it is being assigned in Germany through local licences awarded on a first-come-first-served basis. In Spain, a competitive tender took place in December 2022 and Telefónica secured a national licence of 1 GHz. In the UK, Ofcom launched a public consultation in Q2 2022 on how to enable new uses, including 5G, in the 26 GHz band.

Once the harmonization and assignment of the priority bands for 5G (700 MHz, 3500 MHz and 26 GHz) has been nearly completed, the European institutions are beginning the process to identify new bands that in a 2025-2030 horizon may be available for the provision of wireless broadband services. Among the most relevant bands for Telefónica are the 470-694 MHz and the 6425-7125 MHz bands, that will be discussed at the ITU world conference in 2023, and the 3800-4200 MHz band, for which the RSC approved in December 2021 a mandate to the CEPT with a view to its harmonization for local low and mid-power networks.

EU competition law

European competition provisions have the force of law in Member States and, therefore, are applicable to our operations in those States.

The Treaty on the Functioning of the European Union (TFEU) prohibits "concerted practices" and any agreement between companies that may affect trade between Member States and that restricts or has the objective of restricting competition in domestic market. The Treaty also prohibits any abuse of dominant position within the European Union or any considerable part thereof that may affect trade between Member States.

The Community Merger Regulation requires that all mergers, acquisitions and joint ventures involving companies that meet certain volume thresholds are subject to review by the EC rather than the national competition authorities. In accordance with the amended Community Merger Regulation, market concentrations that significantly impede effective competition in the market will be prohibited. The European Commission has the authority to apply the EU framework for the defense of the competition.

There are similar competition rules in the legislation of each Member State. Those responsible for ensuring compliance are the national competition authorities.

Spain

General regulatory framework

The legal framework for the regulation of the telecommunications sector in Spain is governed by the General Telecommunications Law (11/2022) of June 28, transposing the implementation of the "EECC" into national law.

The Market and Competition National Commission, or CNMC, created by the Law 3/2013, assumed in 2013 its role as telecommunications and audiovisual service regulator in Spain. This organism is also the competition authority in Spain and the national regulatory authority for transport, postal services and energy.

The main licenses and concessions held by Telefónica in Spain are listed at the end of this Appendix VI under the title "Main concessions and licenses held by the Telefónica Group".

Market analysis

The obligations imposed by the national regulator in the most relevant markets in which Telefónica is deemed to have Significant Market Power (SMP) are detailed below.

The EU Commission's delegated act on termination rates entered into force on July 1, 2021 and the approved charges have been amended accordingly:

Fixed markets

Wholesale fixed access and call origination market

On January 17, 2017, the CNMC approved the definition and the analysis of the market for access and call origination on fixed networks. Considering that Telefónica has SMP, the CNMC imposed specific obligations to Telefónica regarding the provision of origination services, preselection and wholesale access service to the telephone line on a cost-oriented bases, and regarding the implementation of an accounting system. Telefónica was imposed, among others, the obligation of no discrimination, transparency and separation of accounts.

Fixed call termination market on individual networks

In July 2019, the CNMC carried out a new round of market analysis in terminated fixed networks, reaching the same conclusions as in the prior analysis and concluded that every single provider, including Telefónica de España, are dominants in terminating fixed networks and, accordingly are obliged to provide call termination service at cost-orientation and non-discrimination to the rest of operators, according to a purely incremental costs model.

Relevant developments were the updating of terminating prices for the period 2019-2021, as well as the possibility of charging a surcharge for traffic originated outside the EU under the principle of reciprocity. The approved prices from January 1, 2021 are 0.0545 euro cents per minute.

Mobile market

Mobile network call termination

On January 2018, the CNMC adopted the final decision where all mobile operators were considered SMP for the call termination in their networks.

As established by the European Commission's Delegated Act, from January 1, 2022 to December 31, 2022, tariffs amount to 0.55 euro cents per minute.

Wholesale (physical) to network infrastructure access and wholesale broadband access

On January 18, 2017, the CNMC adopted a Resolution which approved the reference offer of the new wholesale unbundled virtual access service to Telefónica's new broadband Ethernet service (local NEBA). NEBA services allow alternative operators more flexibility to structure their retail offers over Telefónica's fiber network. In March 2018, the CNMC approved the methodology to be used to assess the maximum wholesale access price which Telefónica could charge to other operators for accessing the optical fiber network in regulated areas (NEBA Local and NEBA services), set at 16.68 euros per month. This price is reviewed once a year in order to assess whether Telefónica's retail offers (broadband flagship products) are economically replicable with such price.

On November 12, 2020, by means of a resolution to the revision of the parameters of the Economic Replicability Test, CNMC has considered that one of Telefónica's flagship products was not replicable with existing wholesale access price, encouraging Telefonica to reduce that price in order to restore the economic replicability of all its retail flagship products.

The resolutions from March 2018, July 2018 and November 2020 have been appealed by Telefónica de España.

In July 2018, the CNMC approved the methodology to analyze whether Telefónica's business offers can be replicated by other operators.

On October 7, 2021, CNMC has completed the the broadband market analysis (1/2020, 3b/2014 markets). The most remarkable aspects stated by CNMC are:

- To expand the competitive area in new generation networks, from 66 to 696 municipalities, which represent the 70.5% where the Spanish population lives. In these areas the obligation to offer a wholesale broadband access service (NEBA) will not be imposed on Telefónica's fiber network.
- In the remaining municipalities, CNMC requires Telefónica to provide other operators with a virtual disaggregated access service (local NEBA) and a wholesale broadband access service (NEBA) on its fiber network.
- Throughout the whole territory, CNMC has decided to maintain the obligation by which Telefónica must provide wholesale access service to its civil infrastructure (ducts, conduits and poles).

Universal service obligations

On February 6, 2023, the Minister for Economic Affairs and Digital Transformation issued the Ministerial Order designating Telefónica de España, S.A.U. as the operator responsible for the provision of the services included in Article 37.1 of the General Telecommunications Law: adequate broadband internet access service at a fixed location with a minimum download speed of 10 Mbps as well as voice communications services at a fixed location. The territorial scope of the designation is the entire national territory and the designation is made for a period beginning at zero hours on February 10, 2023 and ending at zero hours on January 1, 2025.

Spectrum

On February 22, 2021, Telefónica España acquired a 10 MHz block in the 3.4-3.8 GHz band for 21 million euros. With this spectrum acquisition, Telefónica completes 100MHz which corresponds to the maximum carrier width in the 5G standard. In order for all the operators to have contiguous frequency blocks and ensure a more efficient use of the spectrum to deploy 5G technology and associated services, it is expected that the Ministry of Economic Affairs and Digital Transformation will adopt a resolution for the reorganization of the 3.4-3.8 GHz band, during March 2022. Following this resolution, operators will have 6 months to migrate their frequencies. Regarding the 700 MHz band, Telefónica España acquired 2x10 MHz for 310 million euros in the spectrum auction which took place in July 2021.

Additionally, Telefónica has already extended its administrative concessions in the 3.4-3.6 GHz band (2x20 MHz) and the 2.1 GHz band (2x5 MHz+ 5 MHz) until 2030.

Telefónica was awarded with 5 blocks of 20 MHz for an amount of 20 million euros in the auction of the 26 GHz band that took place on the December 21, 2022 which is expected to be formalized in the first quarter of 2023.

Contribution to RTVE funding

In August 2009, the Radio and Television Corporation Finance Law (Ley de Financiación de la Corporación de Radio y Television Española) was approved establishing that: (i) telecommunication operators which operate nationwide or at least in more than one region, have to pay a fixed annual contribution of 0.9% of the invoiced operating income of the year (excluding the revenues of the wholesale reference market), and (ii) the concessionaire companies and providers of TV services which operate nationwide or at least in more than one region have to pay an annual fixed contribution to the RTVE funding as follows: (a) 3% on the gross revenue of the year for open concessionaire companies or TV services providers; and (b) 1.5% on the gross revenue of the year for concessionaire companies to provide Pay TV services.

Contributions made to the funding of RTVE were appealed by Telefónica España and Telefónica Móviles España. The proceedings are currently on hold waiting for the ruling on (i) a prejudicial question submitted by the National High Court to the Court of Justice of the European Union; and (ii) also on an unconstitutionality question submitted to the Spanish Constitutional Court regarding compliance of the underlying law with the European legislation and the Spanish Constitution.

The draft Audiovisual Communications General Law includes a provision to withdraw the 0,9% of the invoiced operating income contribution to RTVE funding which would entry in force by January 1, 2023.

Acquisition of Distribuidora de Televisión Digital, S.A. (DTS)

The Resolution of the CNMC of April 22, 2015 authorized the acquisition of the exclusive control of DTS (Distribuidor Oficial de Televisión, S.A.) by Telefónica de Contenidos, S.A.U. As a result of such authorization, the new entity assumed a set of commitments for a five-year period, which briefly are: i) the obligation to make available a wholesale offer of channels with premium content, that allows the replicability of Telefónica retail Pay TV offer; ii) the prohibition of including a period of permanence clause in contracts for Pay TV packages; iii) the prohibition of attract DTS customers for a period of two months; iv) the obligation to keep at least three international routes uncongested with three Internet Connectivity Providers; and v) the prohibition of formalizing exclusive contracts exceeding three years with content providers.

In July 2020, CNMC decided to extend the application of the commitments on the DTS merger for an additional period of three years. After analyzing the existence of relevant modifications in the markets affected by the operation, the CNMC considered that it was justified to maintain all the commitments except for the broadcasting rights in the video on-demand modality (SVOD), whose commitment to limit the exclusivity, validity period and exploitation period of the contracts that Telefónica could sign is eliminated. In the TV channel commercialization area, the commitment prohibiting Telefónica from early termination of contracts with third party TV channel owners whose term ends within the commitment extension period is softened, allowing the early termination through good faith negotiation, under reasonable and non-discriminatory conditions. The commitments related to the pay-TV market in Spain, expressly subject to a term that has already expired. Telefónica has appealed the decision.

Germany

General regulatory framework

The European Union legislative framework was implemented in Germany at the end of June 2004, by the approval of Telecommunications Act (Telekommunikationsgesetz). The Telecommunications Act has been repeatedly amended over the last years, most recently through the transposition of the European Code of Electronic Communications (EECC) into German law with effect from 1 December 2021. The national regulatory authority responsible for regulation of electronic communication networks and services is the Bundesnetzagentur, or BNetzA.

The main licenses and concessions held by Telefónica in Germany are listed at the end of this Appendix VI under the title “Main concessions and licenses held by the Telefónica Group”.

Spectrum

With regard to provision of the 800 MHz, 1.8 GHz and 2.6 GHz spectrum expiring end of 2025, BNetzA published points of orientation for consultation by March 21, 2022. In conjunction with this, an initial demand survey was conducted to examine signs of a possible spectrum scarcity. The points of orientation essentially spoke only of an extension and/or an auction as the most probable provision mechanisms. The Telefónica Deutschland Group gave its opinion on the points of orientation by the prescribed deadline. After evaluating the comments submitted, BNetzA published a position paper at the end of September 2022 with an initial opinion on the next steps. BNetzA started from the assumption that there was an obvious spectrum scarcity, based on the results of the initial demand survey. This would be an argument in favor of awarding the spectrum in the form of an auction.

To ease the demand situation in the 800 MHz band, the position paper proposes a frequency swap to the same extent with the 900 MHz band. The result would be that the 800 MHz frequencies would run until the end of 2033 and the 900 MHz frequencies until the end of 2025. The frequencies at 900, 1,800 and 2,600 MHz would be auctioned off. The Telefónica Deutschland Group commented in due time and advocated again for an extension of the frequencies to be made available through at least 2033. BNetzA intends to make a decision about frequency provision in 2023.

Regarding the coverage requirements resulting from the 2019 frequency auction, the Telefónica Deutschland Group notified the BNetzA at the beginning of January 2023 that it had fulfilled the obligations due at the end of 2022 to cover households and major routes, and to commission 1,000 5G base stations and base stations in 500 white spots, respectively, in line with the obligations.

Regarding the coverage requirements resulting from the 2019 frequency auction, the Telefónica Deutschland Group, the Deutsche Telekom Group and the Vodafone Group in July 2021 entered into a cooperation for the joint construction of additional radio towers and masts, as well as their technical support and use. The cooperation is designed to meet coverage obligations, especially for transport routes and in rural areas, where frequency holders are allowed to enter into cooperation agreements to fulfil these obligations.

In November 2021, the Telefónica Deutschland Group concluded an agreement with the Deutsche Telekom Group on active shared network usage at “grey spots”, which are areas in which only one mobile network operator offers mobile network access to its customers. A similar agreement with the Vodafone Group has been concluded on 25 January 2022. In both cooperation agreements, live operations were launched in the third quarter of 2022 with reciprocal access to the first mobile network sites.

On May 21, 2021, the Telefónica Deutschland Group entered into a National Roaming Agreement (NRA) with the 1&1 Group (formerly: 1&1 Drillisch Group). With this NRA, the Telefónica Deutschland Group fulfilled one of the EU requirement imposed by the EU Commission arising from the merger of the Telefónica Deutschland Group and E-Plus in 2014.

Market reviews

The EU Commission’s delegated act on termination rates entered into force on July 1, 2021 and the approved charges have been amended accordingly:

Mobile termination rates (MTR)

A glide path applies for the MTR, according to which a charge of 0.70 euro cents per minute will apply from July 1, 2021, decreasing to 0.55 euro cents per minute from January 1, 2022, to 0.40 euro cents per minute from January 1, 2023 and to 0.20 euro cents per minute from January 1, 2024. These charges will apply to all German providers of these services.

Fixed termination rates (FTR)

FTRs have been subject to a charge of 0.07 euro cents per minute since July 1, 2021. These charges will apply to all German providers of these services.

BNetzA consultation and market studies on fiber optic infrastructures

The BNetzA has identified the existence of significant Germany-wide market power of Telekom Deutschland GmbH on wholesale market 3a (= market for wholesale access provided locally at a fixed location) and still deems it to be in need of regulation. This applies to both the copper network of Telekom Deutschland GmbH and the newly constructed fibre-optic network for the implementation of FTTH. On July 21, 2022, after prior notification to the EU Commission, the BNetzA issued the framework conditions under which charges and other access conditions will be controlled by the BNetzA in future. This relates both to access to the local loop in the copper network, the “last mile”, and also to virtual unbundled local access (VULA) to the copper and fibre connections of Telekom Deutschland GmbH. In essence, the BNetzA is maintaining its first draft of October 2021.

On October 26, 2022, the BNetzA published a draft decision for wholesale market 3b (= market for wholesale mass market products provided centrally at a fixed location). The draft also stipulates that the copper and fibre-optic infrastructure of Telekom Deutschland GmbH must be regulated, but that in future regulatory obligations will only apply to municipalities with a population of less than 60,000. The regulatory obligations will be lifted in larger municipalities. Otherwise, the remaining regulatory obligations are closely aligned with the requirements for local access to VULA in accordance with the regulatory order on wholesale market 3a.

The BNetzA is maintaining its flexible approach to access to fibre-optic networks. On the one hand, Telekom Deutschland GmbH will be required to grant wholesale customers equivalent access to the FTTH network. However, price regulation measures will not be evaluated in advance. Instead, they will only be considered if there are indications that the conditions of competition for wholesale customers will be impaired. The BNetzA does not consider this to be the case at present.

United Kingdom

General legislative framework

The EU Regulatory Framework was implemented in the United Kingdom by the Communications Act in 2003. The Office of Communications, or Ofcom, is designated as the NRA responsible for the regulation of electronic communications networks and services. Under the terms of the Withdrawal Agreement, the UK implemented the 2020 Electronic Communications and Wireless Telegraphy Regulation (Amendment) (European Electronic Communications Code and EU Exit) which made amendments to the Communications Act, with effect from December 21, 2020, in order to transpose the EECC into UK law.

The main licenses and concessions held by Telefónica in the United Kingdom are listed at the end of this Appendix VI under the title “Main concessions and licenses held by the Telefónica Group”. These licenses are part now of the joint venture with Liberty Global plc (VMED O2 UK Limited) (see Note 2).

Wholesale price regulation

Mobile termination rates (MTR)

Following a market review, mobile termination rates for all mobile providers, including the four national mobile communications operators are subject to controls based on the pure long-run incremental cost approach (“pure LRIC”). In its 2021-2026 price control decisions, Ofcom set a charge control, with the prevailing rate as of April 1, 2022 set at 0.391ppm.

However, termination rates for calls originating outside the UK to be no more than the reciprocal termination rate charged by the relevant international telecoms provider for a call originating in the UK, or the MCT provider’s domestic rate, whichever is the higher.

MTR caps will be updated annually on April 1, based on inflation (CPI measured for 12 months at December 31, each year) plus X, with X specified as +2.1% (2023); +2.4% (2024) and +1.5% (2025).

Fixed termination rates (FTR)

In the same decision, Ofcom decided to rise by 6.1% to 0.0292 ppm from April 2021. Annual indexation to CPI will apply, but with no “X” adjustment based on the same time period for CPI. VMO2’s current FTR is 0.031ppm from April 1, 2022.

Spectrum

Following an agreement between the Government and industry to provide for a “Shared Rural Network”, the mobile operators, including Telefonica United Kingdom, agreed to amend their 900 and 1800 MHz licences to provide for 88% geographic coverage by 2024 and 90% geographic coverage by 2026.

Ofcom is currently consulting on a future award of 26GHz and 40GHz mmwave spectrum. This process is currently scheduled to take place in 2024.

Brazil

General legislative framework

The delivery of telecommunications services in Brazil is subject to regulation under the regulatory framework provided in the General Telecommunications Law enacted in July 1997. The National Agency for Telecommunications (Agência Nacional de Telecomunicações or ANATEL), is the principal regulatory authority for the Brazilian telecommunications sector. On October 4, 2019, Law 13.879/2019 was published, introducing significant changes to the telecommunications framework.

Brazilian competition regulation is based on Law No. 12529 of November 30, 2011. The Administrative Council for Economic Defense, or CADE, is the agency in charge of enforcing the competition rules. The antitrust law establishes a pre-merger notification regime for concentration transactions, with turnover thresholds (one participant with gross revenue of 750 million Brazilian reais in Brazil and other participant with gross revenue of 75 million Brazilian reais in Brazil) and maximum time length for merger review procedure (240 days, extendable to 330 days). On October 18, 2016, CADE issued the Resolution No 17, which changed the rules concerning the

mandatory notification of the so called 'associative agreements'. The new regulation tends to reduce notifications of associative agreements that do not raise antitrust concerns.

Licenses

The main licenses and concessions of spectrum held by Telefónica in Brazil are listed at the end of this Appendix VI.

In the state of São Paulo, Telefónica Brasil provides fixed telephony services (STFC) under the so-called public regime, through a concession agreement which is expected to remain in force until December 31, 2025. On October 4, 2019, Law 13.879/2019 (resulting from PLC 79/2016) was published. This Law introduces changes to the telecommunications regulatory framework by allowing fixed-line concessions operators to migrate from a concession regime for limited time (in which the underlying assets reverts to the government at the end of the concession) to an authorization regime.

On July 5, 2022, and according to the Law, ANATEL presented a methodology with an estimation of the economic value associated with the migration of the concession regime to authorization, to be validated by the Federal Court of Accounts. After the vote of the rapporteur minister supporting the legality of the methodology presented by ANATEL, it is under analysis by another minister, and should resume to the court's agenda in March. After the final decision by the Federal Court of Accounts about de methodology applied, ANATEL will indicate the final amount for migrating the concession instrument for authorization. This final amount, after confirmation and acceptance by Telefónica, will be converted into investment projects not yet defined by ANATEL.

On April 4, 2021, the Ministry of Telecommunications and ANATEL approved the Resolution No. 744, which adopts the Regulation for the Continuity of the Provision of Fixed Commuted Telephony Service for Use by the General Public ("STFC") under the Public Regime - RCON. This Regulation established that at the end of Telefónica Brazil's STFC concession, the assets belonging to its patrimony (which are used for the provision of multiple services including the STFC under the public regime) will be subject to a contract between the company and the new concessionaire or the Federal Government, to transfer their right of use under fair and reasonable economic conditions.

On the other hand, the assets that are indispensable and exclusively used to ensure the continuity of the provision of STFC under the public regime, will have their possession reverted to the Federal Government through compensation and under the terms of the RCON. It should be noted that these assets constitute residual and decreasing assets of the company's assets.

In this way, the Concessionaire's assets, at the end of the concession contract on December 31, 2025, will not be susceptible to the reversal of its ownership to the Union. The assignment of the use of shared assets and the possession of exclusive assets of the STFC is now defined by means of specific contracts already provided for in the operational manual of the RCON, approved by Decision No. 269/2021/COUN/SCO.

After the adoption of Resolution No. 744, the obligation to submit a list of reversible assets ("RBR") to ANATEL is merely informative with the objective of maintaining transparency of the assets used by the Concessionaire in the provision of STFC under the public regime.

Nevertheless, it is important to emphasize that in the scope of administrative proceeding TC nº. 003.342/2022-0, in progress at the Federal Court of Accounts, a technical report stated that the RCON should be reviewed, such understanding shall still be submitted to the court's ruling.

In the other Brazilian states, Telefónica Brasil provides local, international and long-distance STFC, personal mobile service (SMP) and broadband multimedia communication services (which include the provision of fixed broadband connection) and pay TV services, all under the private regime.

On June 17, 2020, the Decree that regulates Law 13,879/2019 was published. The Decree 10,402/2020 allows the renewal of existing licenses. Previously, only a single license renewal was allowed for the same period. Currently, the successive renewals will be made in a competitive process at market price. The renewal amount can be converted, totally or partially, into investment commitments.

Regarding the extension of the 850 MHz band authorizations, if the legal and regulatory requirements are met, ANATEL agreed to extend the current authorizations for the use of radio frequencies in Bands A and B, proposing their approval, on a primary basis, until November 29, 2028. However, specific conditions for renewal, including those related to the economic valuation criteria and obligations, were challenged by the affected service providers (including Telefónica).

After ANATEL dismissed the appeals filed by the providers, ANATEL referred the case to the federal court of accounts of Brazil (“TCU”), and in September 2022, TCU decided that the possibility of successive extensions brought by Law 13.879/19 should be considered as an exception, applicable only when certain requirements are met (art. 167 of Law 13.879/19 and article 12 of decree 10.402/20). Telefónica appealed that decision, defending the successive extension of licenses as a rule and not as an exception, in accordance to Law 13.879/19.

In addition, on December 8, 2022, ANATEL revoked Telefónica’s 450 MHz spectrum authorization (451 - 458 MHz and 461 - 468 MHz) covering the states of Alagoas, Ceará, Minas Gerais, Paraíba, Pernambuco Piauí, Rio Grande do Norte, Sergipe and part of São Paulo. The decision was motivated by the fact that Telefónica could not provide evidence of service activation in the 450 MHz band as a result of the unavailability of 450 MHz devices ecosystem and of the waiver clause contained in the tender notice, interpreted by ANATEL as meaning that the waiver would operate automatically in case of non-activation of the frequency within the contractual term. Previously, on September 2022, ANATEL revoked authorizations held by other providers.

In November 2021, ANATEL held the greatest spectrum auction in its history, with 700 MHz, 2.3 GHz, 3.5 GHz and 26 GHz lots. On that occasion, Telefónica acquired 3.5 GHz and 26 GHz national licenses (100 MHz and 600 MHz bandwidths, respectively). The Company also won regional 2.3 GHz licenses, with 50 MHz bandwidth in Southeast Region (except Sao Paulo state and PGO Sector 3) and 40 MHz bandwidth in Sao Paulo state, North and Midwest Regions (except PGO Sectors 22 and 25). These licenses guarantee the necessary spectrum to provide 5G services and are valid for 20 years, renewable under existing legal conditions at the end of this time.

Interconnection, tariffs and prices

Interconnection among public networks is mandatory in Brazil. Generally, parties can freely negotiate the terms and conditions about technical points, economic discounts and rights/obligations, of the interconnection agreements. Interconnection rates for fixed network operators identified as operators with significant market power (SMP) (Resolution No. 588/2012) are defined by ANATEL; the interconnection rates for the use of mobile operators networks (Resolution No. 438/2006), may be agreed between the parties. However, if the parties fail to reach a consensus, particularly regarding charges to fixed operators (Resolution No. 576/2011), ANATEL imposes the rates to be used. The mobile termination market is based on the model of incremental costs and, pursuant to applicable laws, variations in VU-M must be reflected in VC1 (retail price paid by users for local fixed-mobile calls). Regarding VC2 and VC3 (retail price paid by users for national long distance fixed-mobile calls), variations in VU-M no longer need to impact these values, as is still the case of VC1. In March 2020, ANATEL approved Resolution No. 724, which established the Standard for the implementation and monitoring of tariff freedom in the Fixed Telephone Service (STFC) for use by the general public, in the National Long-Distance mode. Since then, the company has been free to determine domestic long-distance fees according to the market.

The Telefónica Group, including VIVO, has been identified as an operator with SMP in the following markets: (i) fixed network infrastructure access for data transmission in copper pairs or coaxial cables at speeds up to 12 MBps in the region of São Paulo; (ii) wholesale fixed network infrastructure to transport local and long distance transmission at speeds up to 34 MBps in the region of São Paulo; (iii) passive ducts and trenches infrastructure throughout Brazil; (iv) call termination on mobile network in Brazil; (v) national roaming market throughout Brazil.

ANATEL's Resolution no. 694/2018 in July 2018 changed the PGMC, which, besides others changes, recognized a new relevant wholesale market of high capacity data transport services with speeds higher than 34 Mbps, in which Telefónica is established as SMP throughout Brazil.

In addition, operators without SMP are no longer entitled to charge fixed termination fees up to 20% higher than the highest fee adopted by fixed operators with SMP in the same region, since the publication of the Resolution no. 694/2018 in July 2018.

Further, ANATEL’s Resolution No. 694 of July 17, 2018, changed article 41 of the Appendix II of the General Plan of Competition Goals (PGMC), and established the Bill and Keep between SMP and the non-SMP operators as 50/50%, from February 24, 2018 for the next 4 years, when this might be revised by ANATEL. Accordingly, the VU-M values (in Brazilian reais) for 2022 applicable to Telefónica Brazil are the following: (i) Region 1: 0,01422; (ii) Region 2: 0,01550; and (iii) Region 3: 0,02947, nevertheless Telefónica can reach an agreement for higher values.

Regulation on Universal Service

Currently, only Fixed Switched Telephony Services are subject to universalization obligations. These obligations are established in the General Plan of Universalization Targets (PGMU) and can be reviewed every five years.

Mexico

General regulatory framework

In Mexico, the provision of telecommunication services is governed by the Constitution and the Federal Telecommunication and Broadcasting Law (LFTy R), published on July 14, 2014. The Federal Law of Economic Competition published on May 23, 2014, its regulations and the Regulatory Provisions of the Federal Law of Economic Competition for telecommunications and broadcasting published by the Federal Telecommunications Institute on January 12, 2015.

The Federal Telecommunications Institute (IFT) is the authority responsible for the regulation, promotion and supervision of the use, development and exploitation of radio spectrum, networks and the provision of broadcasting services and telecommunications, as well as the antitrust authority for broadcasting and telecommunications sectors. Furthermore, on August 26, 2015, a special division on Telecommunications affairs was established by the Consumers Affairs Authority to monitor, coordinate, control, substantiate and resolve conciliation, arbitration and infringements, review, modification and grant the use of adhesion contracts in terms of Federal Consumer Act.

The IFT, as the Mexican national authority in communications and broadcasting sectors, declared in 2014 the América Móvil Group a preponderant operator in the telecommunications market, imposing specific measures with asymmetric obligations to avoid damaging competition and free market participation. Within these measures are the imposition of a regulated framework interconnection agreement and a set of reference offers for: leasing of dedicated links, access and shared use of passive infrastructure in fixed and mobile networks, MVNOs, roaming and local loop unbundling. In this sense, on November 17, 2016, Telefónica México and América Móvil Group signed an agreement in order for América Móvil to provide the wholesale service of national roaming in the areas where Telefónica México might have an interest. Telefónica México and Telcel engaged in successive extensions of this agreement and on June 1, 2018 entered into Telcel's current Reference Offer as well as an amendment agreement whereby the Offer, the original agreement and the Pricing and Tariff Annex were replaced entirely, which is in force due to the successive agreements reached to date.

On April 16, 2021, the decree that reforms the Federal Telecommunications and Broadcasting Law was published in Diario Oficial de la Federación creating the National Register of Mobile Telephony Users (PANAUT), which sought to integrate a database with information on the natural person or legal entity who are holders of mobile lines; including biometric data in order to prevent and attack the crime of extortion.

On April 26, 2022 the Supreme Court of Justice of the Nation declared the total invalidity of the regulatory system that integrates the decree mentioned in the previous paragraph (and therefore the PANAUT), as a result of several unconstitutional actions filed by both the INAI (National Institute of Transparency, Access to Information and Protection of Personal Data) and a group of senators.

Licenses

Pegaso PCS, S.A. de C.V. (Pegaso PCS) has multiple concessions and licenses for installation and operation of a Public Telecommunications Network to provide telecommunications services and use spectrum for the provision of mobile wireless service nationwide.

Telefónica México accepted the terms and conditions established by the IFT for the renewal of the 1900 MHz licenses nationwide, which expired in 2018. Notwithstanding the foregoing, on November 21, 2019, Pegaso PCS, S.A. de C.V. notified IFT of the waiver of the totality of its spectrum licenses in four different stages. On December 31, 2020 IFT was informed that the concessions for the 850 and 1900 MHz bands for regions 1, 3 and 4 were returned. Similarly, on December 31, 2021, the IFT was notified the same about the 1900 MHz concessions for regions 5, 6 and 9. Finally on June 30, 2022 the IFT was notified of the return of the remaining spectrum in the 850 and 1900 MHz bands for regions 2, 7 and 8.

Prices and tariffs

Tariffs charged to customers are not regulated. They are set by companies and must be registered with the IFT, in order to be enforced.

Interconnection

On November 17, 2020, the IFT published the mobile termination rates (MTRs) applicable to solve any conflicts regarding MTR during 2021, 2022 and 2023. For 2021 MTRs were set, for the Preponderant Economic Agent

(Radiomóvil Dipsa, S.A. de CV- Telcel-) at 0.018489 pesos per minute, while for the non-preponderant ones they were set at 0.073714 pesos per minute. These rates were calculated using was an LRIC cost model used in the past with new criteria and variables. Since 2018, Telefónica has been challenging the interconnection rate resolutions issued by the IFT based on the inoperability of the cost model authorized by the IFT; notwithstanding this, to date the established rates have been applied. At the end of 2022, the SCJN has not yet resolved the lawsuits filed by Telefónica México and other concessionaires during the years 2018 to 2022.

Foreign ownership/restrictions on transfer of ownership

Since the amendments to the Constitution published in June 2013 foreign investment (FDI) up to one hundred percent in telecommunications is allowed.

Chile

General regulatory framework

The General Telecommunications Law No. 18168 of 1982, as amended, establishes the legal framework for the provision of telecommunications services in Chile. The main regulatory authority in Chile is SUBTEL (the Under-Secretary of Telecommunications). On February 13, 2014, the Regulation on Telecommunications Services was published and came into force on June 14, 2014, regulating a number of new services as Internet, Pay TV, etc.

In May 2014, law No. 20750 allowing the introduction of Digital Terrestrial Television was published in the Official Journal. It set an extensible deadline of five years for the blackout analog. It also set forth that the concessions of free-to-air broadcasting could be nationwide, regional, local and with European coverage.

The principal regulation concerning competition in Chile is Decree No. 211 of 1973, whose current text was established in Law Decree No. 1 of 2005 (Ministerio of Economía, Fomento y Reconstrucción). The Competition Court deals with infringements of competition law. Law N°. 20.945 was published on August 30, 2016 increasing the administrative fines up to 30% of the sales relating to the product line or services associated with the infringement during the period in which the alleged infringement took place, or up to the double of the economic profit reached by the infringement.

Other relevant laws that have an impact on the operation are Law No. 20,808, published in the Official Gazette on January 28, 2015, which protects the free choice of users in cable, Internet or telephony services, Law No. 21,046 that establishes the obligation of a guaranteed minimum speed of Internet access, published in the Official Gazette of November 25, 2017 and Law No. 21,245, published in the Official Gazette on July 15, 2020 that establishes the obligation to provide the Automatic National Roaming service in certain areas and Law No. 19.496 concerning consumer data protection.

Licenses

The main licenses and concessions to use spectrum are shown in the table at the end of this Annex.

Additionally, Telefónica Chile has been granted licenses of public local phone services, Voice Over Internet Protocol services, concessions of long distance and concessions to install and exploit the national fiber optic network and mobile satellite. 2.6 GHz and 700 MHz concessions established an obligation for Telefónica Móviles Chile to provide a wholesale service to MVNOs, under a non-discriminatory and complete Reference Offer (including prices). This same obligation extends to the new 5G technology recently deployed in its first phase.

On December 5, 2019, the TDLC notified resolution 59 through which it modified the 60 MHz spectrum cap, establishing percentage caps by macrobands. Against this resolution, claims were filed by some operators and Conadecus, which were partially accepted by the Supreme Court on July 13, 2020, in the sense of: i) maintaining the percentage caps set by the TDLC, with the exception of the low macroband (up to 1 GHz) which went from 32% to 30%, and ii) establishing certain complementary measures to the Mobile Network Operators such as, national mandatory and temporary roaming; or keeping an offer of facilities and resale plans for MVNOs permanently available and updated, among others.

On February 16, 2021, the auction for the 3.5GHz band, initiated in 2020, was completed and Telefónica Móviles Chile has been awarded 50MHz. On October 2, 2021, the decree granting the concession to Telefónica Móviles Chile in the 3.35-3.40 GHz band was published in the Chilean Official Gazette. From that date, the terms conferred started as follows: (i) 30-year period of the concession and (ii) implementation of the terms for the start of service of the 5G project (12 months for stage 1 and 24 months for stage 2). Telefónica Móviles Chile completed the deployment of all base stations corresponding to phase 1 of the 5G project

Prices and tariffs

Public telecommunication services prices and prices for intermediate telecommunication services are freely established by operators, unless there is an express resolution by Chile's Competition Court on existing conditions in the market confirming that there is not enough competition. Additionally, maximum prices for interconnection services (access charges for network use, mainly) are subject to tariff regulation for all operators, being set by stipulated procedures.

The Ministries set maximum tariffs under efficient operator model basis.

Maximum interconnection tariffs for telephony services are set every five years jointly by the Ministry of Transport and Telecommunications and the Ministry of Economy.

Interconnection

Interconnection is obligatory for all license holders with the same type of public telecommunications services and between telephony public services and intermediate services that provide international long distance services. Every five years, SUBTEL sets the applicable tariffs for services provided through the interconnected networks.

On May 9, 2019, a new Tariff Decree regarding fixed termination rate was adopted for the 2019-2024 period. The new tariff decree for the period 2019-2024, entered into force retroactively in May 2019 and represents a 65% drop from the previous value to reach a value of 1.3 CLP per minute during normal business hours.

Regarding mobile termination rates, in 2019 a new decree was issued, which will be applicable for the next 5 years, The average tariff which will apply until 2024 was 1.8 CLP per minute (0.0024 euros, without VAT, based on the exchange rate as of February 6, 2019, to be charged on a per second basis). The validity of the new tariff decree starts on January 26, 2019. In January 2024, the current decree on interconnection tariffs for mobile services will expire, while in May of the same year the current decree on interconnection tariffs for fixed services will expire.

Argentina

General regulatory framework

The basic legal framework for the provision of telecommunications services in Argentina is set forth in the Law "Argentina Digital" No. 27078 issued on January 7, 2015. This legal framework declared of public interest the development and regulation of information technology, communications and its associated resources (ICT's). Thus, this law became the specific regulatory regime for the free market, including rules on interconnection, universal service and radio spectrum, and setting out the principles of network neutrality and giving to the technological, informational and communicational companies the possibility of providing broadcasting services (except satellite infrastructure), and setting a single license system.

Additionally, the Government approved the Decree No. 267/2015, published in the Official Gazette on January 4, 2016, which amended the Argentina Digital Act creating the National Communication Agency (ENACOM), which is the continuation of the Federal Authority for ICTs (Autoridad Federal de Tecnologías de la Información y las Comunicaciones).

By the Decree of Need and Urgency No. 690/2020, it was resolved to amend Law 27078, establishing that Information and Communication Technology Services and Access to telecommunications networks for and among licensees are essential and strategic public services. At the same time, it determined that the prices of ICT essential and strategic public services will be regulated by the authority. Finally, it incorporated mobile communication services as public services. In connection with DNU 690/2020, Telefónica de Argentina, S.A. and Telefónica Móviles Argentina, S.A. (collectively, "Telefónica") were forced to file a lawsuit against the Argentine State, in connection with a series of contracts for licenses to provide services and spectrum use authorizations entered into between Telefónica and the Argentine State, including the licenses resulting from the 2014 spectrum auction. Such contracts and their regulatory framework provided that the services provided by Telefónica were private and prices would be freely set by Telefónica. The lawsuit filed was dismissed in September 2021 and Telefónica appealed this decision. On December 17, 2021, the first instance ruling was overturned and the scope of articles 1, 2, 3, 5 and 6 of DNU 690/2020 and the resolutions of the National Telecommunications Agency that sought to control tariffs (Resolutions 1666/2020 and 204/2021) and provide for a Mandatory Universal Basic Provision (Resolution 1467/2020) were suspended for six months or until a final ruling is issued. During this period, Telefónica will not be subject to the provisions considered in the DNU 690/2020 in relation to price and public service regulations. On June 10, 2022, the Federal Contentious Administrative Court No. 5 extended by six months the precautionary suspension of the

effects of the DNU 690/2020 in favor of Telefónica. On December 27, 2022, the Federal Contentious Administrative Court No. 5 extended for an additional six months the precautionary suspension of the effects of the DNU 690/2020 in favor of Telefónica.

Furthermore, “Law on Defense of Competition” No. 27442 prohibits any acts or behaviors contrary to such law and establishes an authority of competition that is pending to be constituted. In the meantime, the Secretary of Commerce continues to act, assisted by the National Commission for the Defense of Competition created by Law No. 22262.

Licenses

The main licenses and concessions to use spectrum are shown in the table at the end of this Annex.

Additionally, Telefónica de Argentina has licenses for an indefinite period of time for the provision of communications services; local telephone services; long-distance national and international, telex, international communication and data transfer services; national and international value-added services, and other telecommunication services provided by the different license agreements entered into with the National State, and administrative acts entered into with the National State.

Roaming

By means of Law 27.497 (BO 10/01/2019) the Economic Complementation Agreement No.35 between the States part of Mercosur and the Republic of Chile was approved, which includes the Commercial Agreement between the Republic of Chile and the Republic of Argentina by which these countries are obligated to implement the international roaming services in the territory of the other party with the same tariffs or prices they charge for the mobile services in their own country.

Finally, by means of Resolution ENACOM 927/2020, the International Roaming Regime between the Republic of Argentina and the Republic of Chile was approved, establishing as from August 29, 2020, the price for international roaming service between the two countries as a local service.

Prices and tariffs

Since the amendment of the Argentine Digital Act by Decree of Need and Urgency No. 690/2020, the licensees may set the prices, which must be fair and reasonable, must cover exploitation costs and aim to an efficient provision and a reasonable operation margin. The authority may regulate the prices for reason of public interest.

On December 21, 2020, the BO published the ENACOM Resolution No. 1467/2020, which regulates the Mandatory Universal Basic Provision (PBU) for fixed and mobile telephone services, internet services and radio broadcasting by subscription through physical or radio links. Both the PBU benefits and the prices are established by the control authority. Only a certain group of persons who are covered by the cases set by the regulation (social plans beneficiaries, unemployed, etc.) may have access to the PBU.

Interconnection

The National Entity of Communications (ENACOM) has the power to control interconnection prices and tariffs, and also to set them in order to the general costs or other compensation mechanism.

The Ministry of Modernization issued resolution 286/2018 establishing a new interconnection regulation. Based on this, ENACOM set a local origination or termination rate in the Fixed Telephony Service's networks equivalent to 0.0045 dollars per minute, for the local transit service an interim rate equivalent 0.0010 dollars per minute and for the service of long distance transport an interim rate equivalent to 0.0027 dollars per minute. A rate of 0.0108 dollars per minute applies to local origination or termination services in mobile networks. For all cases, the second was set as the appraisal unit of measurement.

Colombia

General regulatory framework

In Colombia there are different agencies responsible for decision-making in the Information Technology and Communications sector (ICT), among them are the Ministry of Information and Communication Technologies (MinTIC), the Communications Regulation Commission (CRC), the National Spectrum Agency (ANE), the Superintendence of Industry and Commerce (SIC).

Through Law 1341 of July 30, 2009, principles and concepts applicable to Information societies and the Organization of Information and Communications Technologies -ICT- are defined, the National Spectrum Agency is created and other provisions are issued and establishes the general framework for the formulation of public policies in the Information Technology and Communications sector. This Law was amended by Law 1978 of 2019, ICT sector is modernized, the competences are distributed and a single regulator is created, with the purpose of encouraging investment in the sector and focus on connectivity, creating more and better services, as well as unifying the regulatory framework and strengthening public television and radio.

Likewise, article 10 of Law 1341 of 2009 establishes the general rating regime for the provision of telecommunications networks and services, this rating is understood to be formally assorted, when the interested party is registered in the ICT register, provided by Article 15 of the abovementioned Law, in the same way. With the reform of this Law carried out with the Law 1978 of 2019, the subscription television service is included as provision of telecommunications networks and services and by virtue of the provisions of the transition regime established by such last mentioned regulation, the operators that to date of its publication, had concession contracts for the provision of television can qualify for general authorization and provide services in an environment of technological neutrality. In addition, telecommunication services continue to be public services in charge of the State, and Internet access has been declared an essential public service by Law 2108 of 2021.

Also, in accordance with the provisions of Article 11 of the Law 1341 of 2009, the use of the spectrum requires prior, express and granted permission by the MinTIC. As of 2019, with the amendment of Article 8 of the Law 1978, the validity of the use permit is extended of spectrum and its renewal from 10 to 20 years. The regulation provides that the granting or renewal of the permit to use a segment of the radio spectrum will result in payment, in favor of the Information and Communications Technology Fund and in charge of the permit holder. With the amendment of 2019, this consideration may be partially paid, up to 60% of the total amount, through the execution of obligations to do, to expand the quality, capacity and coverage of the service, which benefits the poor and vulnerable population, or in remote areas, in public schools located in rural areas and other official institutions such as health centers and public libraries, as well as providing emergency networks.

On the other hand, the Colombian competition law is included in Law No. 155/1959, Decree No. 2153/1992 and Law No. 1340/2009 on restrictive trade practices.

Licenses

The main concessions and licenses for spectrum use are reflected in the table, at the end of the Annex.

Telefonica applied in 2021 for the renewal of the permit for 15 MHz of spectrum in the 1900 MHz band, which was valid until October 18, 2021. For the renewal, on October 19, 2021 the MinTIC issued the resolution 2803 setting the price of renewal for 20 years. Telefónica appealed this resolution and the Ministry resolved, through Resolution 2143 of 2022, to decrease the renewal cost and eliminate the technological update obligations considered in the resolution of October 2021. Telefónica filed a request for direct revocation of the Resolution 2143, which was denied through Resolution 4454 of 2022.

In Colombia, a Spectrum Auction Action Plan was published in December 2022 which announced that the conditions for the renewal of spectrum permits to expire in 2023 and 2024 will be defined and actions will be taken to carry out auctions of the remaining spectrum in the 700 MHz, 1900 MHz and 2500 MHz bands, and the 3.5 GHz and 26 GHz 5G bands, indicating that the assignment process would be carried out in the third quarter of 2023. In development of this, Min Tic published a resolution inviting parties to express interest in participating in the Auction Process for the granting of permits for the use of radio spectrum in the three aforementioned bands and adding to the process the 3.5GHz and 26GHz bands with the following amounts of spectrum available: 10MHz of 700 MHz and 1900MHz, 30 MHz in the 2500MHz band, 400 MHz in the 3500MHz band and 2.8 GHz in the 26 GHz band. An important change is that the ICT Ministry in 2022 modified the maximum spectrum caps for Telecommunications Networks and Services provider for use in terrestrial mobile services (IMT). The caps were set at 50 MHz for the low

bands (below 1 GHz), 100 MHz for the medium bands (between 1 GHz and below 3GHz) and 100 MHz for the high medium bands (between 3 GHz and 6 GHz). In the expression of interest Telefónica stressed, among other points, the importance of an adequate spectrum pricing policy, transparency in valuation methodologies, an adequate framework to correct the problems of dominance in the mobile market and the elimination of barriers.

Finally, although Telefónica is in favor of increasing the spectrum caps, has requested additional measures to avoid resource monopolization by the dominant operator.

Interconnection

Mobile and fixed operators in Colombia have the right to interconnect to other operators' networks. Before the intervention of regulatory authorities, operators must attempt direct negotiations. Interconnection must assure compliance with the objectives of non-discriminatory treatment, transparency, prices based on costs plus a reasonable profit and promotion of competition.

In February 2022 the CRC published Resolution 6522 of 2022 whereby some provisions related to the access, use and interconnection of telecommunications networks are modified, modifying the signaling conditions by introducing the mandatory use of the SIP protocol in at least one node of the network; access conditions on the part of content and application providers (PCA) or Technology Integrators for the provision of content, some articles were modified regarding user protection with regards to sending SMS and USSD for commercial and advertising purposes, and establishing new obligations for assignees of short codes, the content of the Basic Interconnection Offer (OBI) was also changed with regards to the guarantees, establishing the option of prepayment and the obligation to update them.

In December 2022 the CRC issued Resolution 7007 which modifies the remuneration conditions for mobile services as of January 2023. The charges for termination in mobile networks, termination of text messages, and the remuneration of National Automatic Roaming and OMVs are reduced. Bill and Keep will apply on remuneration of termination in mobile networks and SMS from May 1, 2025; it does not apply to the use of mobile networks by technology integrators, PCAs and international long distance providers.

Prices and tariffs

The Technologies of Information and Communications Law provides for a free pricing system for communication services, unless there are market failures or quality problems. From 2016 retail tariffs for fix to mobile calls are no longer regulated except for TIGO (one of the commercial names under which Colombia Movil operates) which still holds concession for the provision of personal communication services (PCS's).

Peru

General regulatory framework

The provision of telecommunications services in Peru is governed by the Telecommunications Law, its General Regulation and related regulations. In July 2012, the Peruvian Congress approved the Law of Promotion of the Broad Band and Construction of the National Fiber Optic Backbone, Law No. 29904. This Law declared both (i) the construction of a National Fiber Optic Backbone available to the government to make possible the connectivity by the broad band; and (ii) the access and use of the infrastructure associated with the public services of energy and hydrocarbon to facilitate the display of the telecommunication network for the provision of the broad band of public necessity. In addition, Law No. 29904 implied that operators of electric, transport and hydrocarbon infrastructure projects would have to install fiber optic that would be available to the government and given in concession to telecommunication operators. Also, this law established that a percentage of the capacity of the National Fiber Optic Backbone would be reserved to the government to satisfy its necessities. Additionally, this Law incorporated the obligation of the Internet services providers to comply with the Net Neutrality regulations. In this sense, the NRA, the Organismo Supervisor de las Telecomunicaciones (OSIPTEL), adopted regulations aimed at providing clear guidelines on the implementation of the net neutrality regime adopted in Peru in 2012 that are in force since January 1, 2017.

Law No. 30083 was approved in September 2013, which seeks to strengthen competition in the public mobile market service by introducing MVNOs and mobile rural infrastructure operators (MRIO). Regulations developing the Act were published in August 2015.

The general competition framework in Peru is based on the Legislative Decree No. 1034. This Law it is applied, in the telecommunication sector, by OSIPTEL.

In November 2019, the government approved the Prior Control of Business Concentration Operations, applicable for those mergers, acquisitions, constitution of joint ventures or the acquisition of productive assets of economic agents that produce effects that restrict competition in the National territory. This regulation shall enter into force in March 2021.

Licenses

The main licenses and concessions to use spectrum are shown in the table at the end of this Annex.

Telefónica del Perú S.A.A faces seven concession renewal processes which correspond to requests made between 2014 and 2020, all of them are pending of decisions on the part of the Ministry of Transportation and Communications (“MTC”). These concessions, according with Peruvian legislation, remain valid while the proceedings are still ongoing.

One of these renewal processes corresponds to the fourth gradual renewal of the concessions for the provision of fixed telephony services, which must be reevaluated as Telefónica del Perú S.A.A won the arbitration process against the MTC’s decision to deny this renewal.

The cable distribution broadcasting service concessions were renewed in May 2016 until March 2032 and 2033, respectively.

On November 2020, the Ministry of Transportation and Communications granted Pangeaco, S.A.C. concession for the provision of telecommunications public services for a 20-year term, renewable. This Group company was created in March 2020 in order to provide all kind of telecommunications services, as well as to acquire, have and exploit telecommunications infrastructure. The company signed on January 15, 2021 the respective concession contract.

Regarding to the auction on the 1,750 - 1,780 MHz, 2,150 - 2,180 MHz, and 2,300 - 2,330 MHz bands, Telefónica del Perú S.A.A. was preselected for the 2022 auction, which was suspended. The process was restarted at the beginning of January 2023, and it is expected that the spectrum will be awarded by the end of the first half of 2023. With regards to 5G, and the spectrum auction for the 3.5 GHz and 26 GHz band, no decision has been taken as of yet.

Wholesale regulation for Major Suppliers

OSIPTEL reviews the markets identified as priority (fixed Internet, mobile, pay TV and circuits) every 3 years in order to determine the existence of major suppliers (companies with market power) in such markets and to impose obligations such as infrastructure sharing and services resale. On June 17, 2021, OSIPTEL resolved to declare Telefónica del Perú S.A.A. and its Economic Group in the country as an important provider in the wholesale Pay TV market in 10 regional markets. Telefónica del Perú S.A.A. won an appeal for reconsideration against this decision, eliminating the obligation of sharing/reselling content.

Prices and tariffs

Tariffs for fixed local telephony and long distance services are adjusted every three months considering services baskets, pursuant to a price cap formulae from inflation and a productivity and must be approved by OSIPTEL in accordance with a price cap formula based on a productivity factor. Rates charged by mobile providers to their customers have been subject to a free tariff regime supervised by OSIPTEL. Tariffs must be reported to OSIPTEL prior to implementation. On 2011, OSIPTEL approved a new price cap system by which the operators of fixed services determine the rates of the local fixed-mobile calls. Such rate is adjusted every time there is an adjustment mobile interconnection rate. On June 17, 2022, OSIPTEL adjusted the rate applicable to local calls made from Telefónica del Perú S.A.A.’s fixed telephones to mobile networks in PEN 0.0006 per second without IGV. Said rate entered into force on June 19, 2022. In the 2022 adjustment, the level of the ceiling rate was maintained.

Interconnection

On May 3, 2022, OSIPTEL published the amendment of the MTR, at 0.00129 U.S. dollars per minute rated at the second, which is applicable as of May 4, 2022 and applies to all mobile service operators.

Main concessions and licenses held by the Telefónica Group

The following tables list the concessions and licenses as at December 31, 2022 to use spectrum for mobile services and selected other applications in each country.

EUROPE	Frequency	Bandwidth (MHz)	Year of Exp. Date
Spain	700 MHz	20	2041 (1)
	800 MHz	20	2031
	900 MHz	29.6	2030
	1800 MHz	40	2030
	1900 MHz (TDD)	5	2030 (2)
	2100 MHz	29.6	2030 (2)
	2600 MHz	40	2030
	2600 MHz	20 (3)	2030
	2600 MHz (TDD)	10 (4)	2030
	3.5 GHz (TDD)	40	2030 (2)
	3.5 GHz (TDD)	10	2038
	3.5 GHz (TDD)	50	2038
United Kingdom (5)	700 MHz	20	Indefinite
	800 MHz	20	Indefinite
	900 MHz	34.8	Indefinite
	1800 MHz	11.6	Indefinite
	1900 MHz (TDD)	5	Indefinite
	2100 MHz	20	Indefinite
	2300 MHz (TDD)	40	Indefinite
	2600 MHz (TDD)	25	Indefinite
	3.5 GHz (TDD)	40	Indefinite
	3.5 GHz (TDD)	40	Indefinite
	Germany	700 MHz	20
800 MHz		20	2025
900 MHz		20	2033
1800 MHz		20	2033
1800 MHz		20	2025
2100 MHz (TDD)		5	2025
2100 MHz (TDD)		14.2	2025
2100 MHz		10	2040
2100 MHz		30	2025
2600 MHz		60	2025
2600 MHz (TDD)		20	2025
3.5 GHz (TDD)		70	2040

⁽¹⁾ Initial term until 1 December 1, 2041, can be extended for 20 additional years.

⁽²⁾ Initial term until 2020, extended concession until April 18, 2030.

⁽³⁾ Regional licenses in Madrid and Melilla.

⁽⁴⁾ National license excluding 2 regions (Madrid and Melilla).

⁽⁵⁾ These licenses are part of the joint venture with Liberty Global plc (VMED O2 UK Limited).

BRAZIL ⁽¹⁾⁽²⁾	Frequency	Bandwidth (MHz)	Year of Exp. Date
	700 MHz	20	2029
	850 MHz	25 (3)	2028 (4)
	900 MHz	5-10 (5)	2023-2035 (6)
	1800 MHz	30-65 (7)	2023-2035 (6)
	2100 MHz	30-60 (10)	2023
	2300 MHz (TDD)	40-50 (11)	2041
	2500 MHz	40-60 (8)	2027-2031 (9)
	3.5 GHz (TDD)	100	2041
	26 GHZ	600	2041

⁽¹⁾ Expiration date accounts for initial term of 15 years for 450, 700, 2100 and 2500 MHz bands, another 15 years extension are contemplated in these licenses. In 2300 MHz, 3.5 and 26 GHz the initial term is 20 years, with additional 20 years extension.

⁽²⁾ Regional codes are included in Annex 1.

⁽³⁾ Except regions 2', 4', 6', 7', 7'' and 10.

⁽⁴⁾ Regional licenses second term expiring in different dates. Concession extended until 2028.

⁽⁵⁾ Regional licenses of 5 MHz or 10 MHz. Not in regions 1 and 10.

⁽⁶⁾ Regional licenses: second term expiration and renewal dates are dependent on the region.

⁽⁷⁾ Regional licenses between 30 MHz and 65 MHz.

⁽⁸⁾ 40 MHz national license, plus Band P (20 MHz) in some areas.

⁽⁹⁾ The initial term of Band X will expire in 2027 and Band P will expire in 2031.

⁽¹⁰⁾ 30 MHz in some regions.

⁽¹¹⁾ Regional licenses: 40 MHz in North, SP and CO; 50 MHz in RJ, ES e MG.

HISPANOAMÉRICA	Frequency	Bandwidth (MHz)	Year of Exp. Date
Argentina	700 MHz	20	2033
	850 MHz (AMBA)	30	Indefinite
	850 MHz (Sur)	25	Indefinite
	1900 MHz (AMBA)	20	Indefinite
	1900 MHz (Norte)	50	Indefinite
	1900 MHz (Sur)	25	Indefinite
	1700 MHz/2100 MHz	20	2033
	2600 MHz	30	2035 (1)
	3.5 GHz	50	Indefinite (2)
Chile	700 MHz	20	2045
	850 MHz	25	Indefinite
	1900 MHz	20	2032 (3)
	2600 MHz	40	2043
	2600 MHz (TDD)	12	2038 (4)
	3.5 GHz	50	2051
Colombia	850 MHz	25	2024
	1700 MHz/2100 MHz	30	2023
	1900 MHz	15	2024
	1900 MHz	15	2041 (5)
Ecuador	850 MHz	25	2023
	1900 MHz	60	2023
Peru	450 MHz	10	2028
	700 MHz	30	2036
	850 MHz	25	2030 (6)
	900 MHz (Lima and Callao)	10	2028
	900 MHz (Rest of provinces)	16	2028
	1700 MHz/2100 MHz	40	2033
	1900 MHz (Lima and Callao)	25	2030
	1900 MHz (Rest of provinces)	25	2018 (7)
	3.5 GHz	50	2027
Uruguay	700 MHz	30	2037
	850 MHz	25	2024
	1900 MHz	20	2024/2047 (8)
	1900 MHz	40	2033
	2600 MHz	40	2045
Venezuela	850 MHz	25	2027 (9)
	1900 MHz	50	2027 (9)
	1700 MHz/2100 MHz	20	2027 (9)
	2600 MHz	40	2029
	3.5 GHz	50	2026 (10)

⁽¹⁾ Covering 65% of the population.

⁽²⁾ Fixed Wireless Access licenses 25+25 MHz in 23 localities with indefinite term (Res. SC 10160/1999, including AMBA region).

⁽³⁾ 10MHz sold in 2021 as a result of the 'Subtel' (Chilean National Regulator) proposal to comply with the High Court resolution (June 2018) that mandates operators to return certain amount of spectrum they acquired in the 700MHz auction in 2014.

⁽⁴⁾ Only in Metropolitan Region.

⁽⁵⁾ Renewed for 20 years.

⁽⁶⁾ Provinces of Lima and Callao: expiration date of March 2030; rest of provinces in December 2030.

⁽⁷⁾ In process of renewal. Extension requested on May 30, 2016. According to the regulation, the license maintains its validity until the Ministry of Transport and Communications decides over the request presented.

⁽⁸⁾ 10 MHz expires in 2024; 10 MHz has been renewed for 25 years until in 2047.

⁽⁹⁾ Renewed for 5 years.

⁽¹⁰⁾ Available for Fixed Wireless Access licenses.

Telefónica seeks to use its spectrum in the most efficient way, implementing 5G and LTE-Advanced where possible.

Besides the spectrum assets included in the above tables, Telefónica owns other assets of spectrum used for other services in higher frequency ranges (above 6 GHz), including access transport.

ANNEX 1

BRAZIL'S SPECTRUM PORTFOLIO: MEANING OF THE STATES, REGIONS AND SECTORS ACRONYMS

Acronym	State
AC	Acre
AL	Alagoas
AP	Amapá
AM	Amazonas
BA	Bahia
CE	Ceara
DF	Distrito Federal
ES	Espírito Santo
GO	Goiás
MA	Maranhão
MT	Mato Grosso
MS	Mato Grosso do Sul
MG	Minas Gerais
PA	Pará
PB	Paraíba
PR	Paraná
PE	Pernambuco
PI	Piauí
RJ	Rio de Janeiro
RN	Rio Grande do Norte
RS	Rio Grande do Sul
RO	Rondônia
RR	Roraima
SC	Santa Catarina
SP	São Paulo
SE	Sergipe
TO	Tocantins

Regions	States & towns included in the regions
1	SP (City)
2	SP (Interior)
2'	SP - towns of sector 33 of the GPLG
3	RJ and ES
4	MG
4'	MG - towns of sector 3 of the GPLG
5	PR and SC
5'	PR - towns of sector 20 of the GPLG
6	RS
6'	RS - towns of sector 30 of the GPLG
7	AC, DF, GO, MS, MT, RO and TO
7'	GO - towns of sector 25 of the GPLG
7''	MS - towns of sector 22 of the GPLG
8	AM, AP, MA, PA and RR
9	BA and SE
10	AL, CE, PB, PE, PI and RN

Sectors	GPLG - general plan of the licenses granted (geographic areas that correspond to the sectors)
1	RJ
2	MG - except towns included in sector 3
3	MG - towns of Araporã, Araújo, Campina Verde, Campo Florido, Campos Altos, Canálois, Capinópolis, Carmo do Paranaíba, Carneirinhos, Centralina, Comendador Gomes, Conceição das Alagoas, Córrego Danta, Cruzeiro da Fortaleza, Delta, Frutal, Gurinhatã, Ibiraci, Igaratinga, Iguatama, Indianópolis, Ipiacú, Itapagipe, Ituiutaba, Iturama, Lagamar, Lagoa Formosa, Lagoa Grande, Limeira D'Oeste, Luz, Maravilhas, Moema, Monte Alegre de Minas, Monte Santo de Minas, Nova Ponte, Nova Serrana, Papagaios, Pará de Minas, Patos de Minas, Pedrinópolis, Pequi, Perdígão, Pirajuba, Pitangui, Planura, Prata, Presidente Olegário, Rio Paranaíba, Santa Juliana, Santa Vitória, São Francisco de Sales, São José da Varginha, Tupaciguara, Uberaba, Uberlândia, União de Minas & Vazante
4	ES
5	BA
6	SE
7	AL
8	PE
9	PB
10	RN
11	CE
12	PI
13	MA
14	PA
15	AP
16	AM
17	RR
18	SC
19	PR –except towns included of sector 20
20	PR – towns of Londrina and Tamarana
21	MS – except the town integrating of sector 22
22	MS – town of Paranaíba
23	MT
24	TO and GO – except towns included in sector 25
25	GO – towns of Buriti Alegre, Cachoeira Dourada, Inaciolândia, Itumbiara, Paranaiguara and São Simão
26	DF
27	RO
28	AC
29	RS
30	RS – towns of Pelotas, Capão do Leão, Morro Redondo and Turuçu
31	SP – except the towns included in sector 33
33	SP – towns of Altinópolis, Aramina, Batatais, Brodosqui, Buritizal, Cajuru, Cássia dos Coqueiros, Colômbia, Franca, Guaira, Guarã, Ipuã, Ituverava, Jardinópolis, Miguelópolis, Morro Agudo, Nuporanga, Orlândia, Ribeirão Corrente, Sales de Oliveira, Santa Cruz da Esperança, Santo Antônio da Alegria and São Joaquim da Barra