Trends in telecommunications prices

September 2020

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Executive summary

- In September 2020, telecommunications prices, measured by the sub-index of the Consumer Price Index (CPI), remained unchanged from the previous month.
- Compared to the same month of the previous year, the observed variation in prices was -1.14%. The year-on-year variation of telecommunications prices has been lower than the growth of the CPI since November 2017.
- The average variation rate of telecommunications prices of the last twelve months was -2.92%, i.e. 3.01 percentage points (p.p.) below that recorded by the CPI (0.09%). This price reduction primarily reflects the entry into force on 15 May 2019 of the new European rules regulating the prices of intra-European Union (EU) communications
- In September 2020, the average variation rate of telecommunications prices in Portugal was lower than that observed in the EU (-3.3 p.p.). The average variation rate of telecommunications prices of the last twelve months in Portugal was the 25th highest among EU countries. The country that recorded the highest increase of prices was Poland (+3.6%) while the largest reduction occurred Czech Republic (-3.9%). On average, telecommunications prices in the EU Increased by 0.4%.
- Between the end of 2009 and September 2020, telecommunications prices in Portugal increased by 6.5%, while in the EU they fell by 10.3%. The difference narrowed following the entry into force on 15 May 2019 of the new European rules regulating the prices of intra-EU communications.
- Compared to the same month of the previous year, ANACOM estimated that the lowest charges of individualised fixed broadband, of the most common double play (2P) packages, which include fixed internet, and quadruple play (4P) and quintuple play (5P) packages increased between 3.8% and 7.2%.
- Minimum monthly charges are offered by Vodafone in the case of seven of the 13¹ services/offers considered, while MEO and NOS show the lowest monthly charges in four and three cases, respectively. MEO decreased its minimum monthly charge of one

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¹ The five individualised services (subscription TV signal distribution service, fixed broadband, fixed telephone service, mobile telephone service and mobile broadband supported by PC/tablet) and the main 2P, 3P, 4P and 5P packages.

- service/offer in relation to the same month of the previous year, while NOS and Vodafone increased the monthly charges of five and two services/offers, respectively.
- According to a study of international price comparisons recently published by Rewheel, in the second half of 2020 the median price per gigabyte of the mobile internet offers in Portugal was the highest in terms of the EU and the 3rd highest among the 48 countries analysed. On the other hand, Portugal was ranked the 6th country of the EU and the 8th among the 48 countries analysed where 30 euros bought less mobile internet traffic. Lastly, according to this study, the median price of the unlimited mobile internet offers is above the EU average.

1. Trends in telecommunications prices - September 2020

According to the Portuguese national statistics institute (INE), in September 2020, telecommunications prices remained unchanged from the previous month.

Compared to the same month of the previous year, the variation of telecommunications prices was -1.14%. The variation of telecommunications prices was ranked in the 28th highest place (or 16th lowest) among the 43 subgroups of goods and services considered (Table 1).

Table 1 - Trends in the Consumer Price Index (CPI) and telecommunications prices

	September 2020			2019
	YoY var.	Average var. of the last 12 months	Var. of previous month	Average var. of the last 12 months
CPI (%)	-0.14	0.09	0.97	0.34
Telecommunications (%)	-1.14	-2.92	0.00	-2.69
Mobile telephone services* (%)	0.20	-3.35	0.00	-3.66
Relative position (decreasing order among the 43 subgroups of goods and services)	28	36	20	37

Unit: %

Source: INE, Eurostat

Note*: the HICP sub-index "Wireless telephone services", which is incorporated in the sub-index "Telephone and telefax services".

Between August 2013 and October 2017, the year-on-year growth of telecommunications prices was almost always higher than the growth of the Consumer Price Index (CPI) due to the "price adjustments" made by the providers, especially at the beginning of each year. However, this situation reversed in November 2017. In September 2020, the deviation in relation to the CPI reached -1 p.p. (Figure 1).

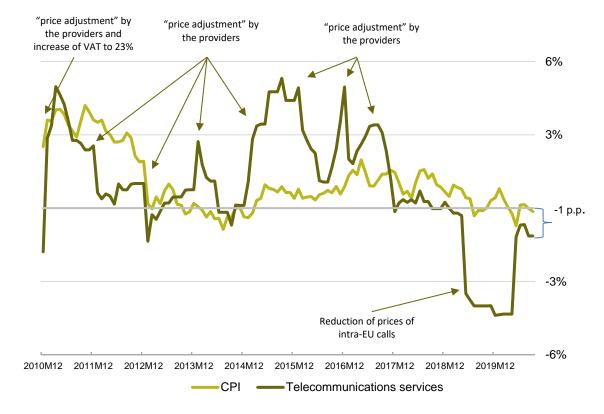


Figure 1 - Year-on-year variation rate of the CPI and telecommunications prices

Unit: % Source: INE

The average variation of telecommunications prices of the last twelve months (-2.92%) was ranked in 36th position among the 43 subgroups of goods and services considered, being higher than the price variation of "Footwear" and "Transport services" and lower than the price variation of "Electricity, gas and other fuel" and "Water supply".

The difference between the average variation rate of the last twelve months of telecommunications prices and the CPI reached -3.01 p.p. in September 2020. During the 118 months elapsed since December 2010, telecommunications prices have grown at rates below the CPI in 64 months (Figure 2). The positive deviations between the evolution of the telecommunications prices and the CPI were due to the aforesaid "price adjustments" made by the main providers.

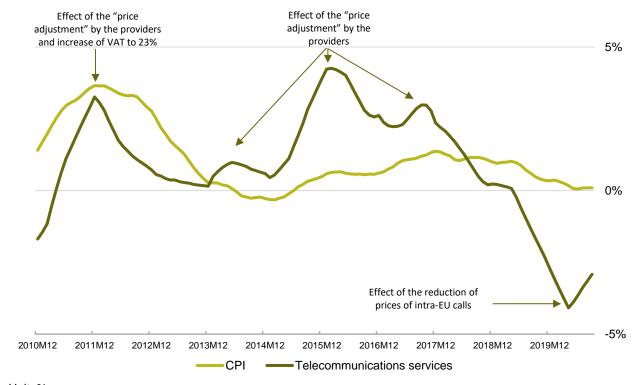


Figure 2 – Average variation rate of the last twelve months of the CPI and telecommunications prices

Unit: % Source: INE

In cumulative terms since the end of 2010, telecommunications prices have increased by 8.5 p.p. while the CPI increased by 9.6 p.p. The divergence between the evolution of the two indices started in 2015 and exacerbated in 2016, associated to the "price adjustments" made by the main providers (Figure 3). From May 2019 onwards, the diminishing divergence between the two indices was due to the entry into force of Regulation (EU) 2018/1971 of the European Parliament and of the Council, which imposed a maximum price on intra-EU international calls and text messages (SMS) (see box).

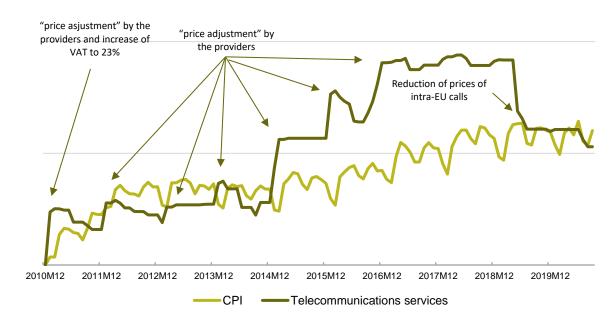


Figure 3 – CPI and telecommunications price trends in Portugal (2010M12 = Base 100)

Unit: index (2010M12 = Base 100) Source: ANACOM, based on INE data

Reduction in prices of intra-EU calls

New European rules entered into force on 15 May 2019, establishing limits to the retail prices charged to consumers for regulated intra-EU communications¹. These new rules are applicable to international communications (fixed and mobile voice and SMS) made from a number in Member State to a number in another Member State, which is fully or partially charged based on effective consumption.

Calls made by the consumer in one country to a number (fixed or mobile) of another EU country are now chargeable at a maximum price of 0.19 euros per minute (without VAT) to the consumer who made the call. Text messages (SMS) sent by the consumer in one country to a number (fixed or mobile) of another EU country are now chargeable at a maximum price of 0.06 euros per SMS (without VAT) to the consumer who sent the SMS.

In May 2019, telecommunications prices fell by 3.2%.

¹ Pursuant to article 5 of Regulation (EU) 2015/2120 as amended by article 50 of Regulation (EU) 2018/1971 of the European Parliament and Council, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2018:321:TOC.

2. Trends in telecommunications prices in the EU - September 2020

According to Eurostat, in September 2020, the average variation rate of the last twelve months of the prices of telecommunications services in Portugal was 3.3 p.p. lower than the EU average, with Portugal having been ranked as the 25th country with the highest price variation (or 3rd country with the lowest variation). The countries in which the highest price increases occurred were Poland (+3.6%), Romania (+2.8%) and Hungary (+2.4%) while the Czech Republic (-3.9%), Ireland (-3.6%) and Portugal (-2.9%) recorded the strongest price reductions.

In relation to the same month of the previous year, the variation of telecommunications prices in Portugal was ranked in the 19h highest place (or 9th lowest) among the 27 countries considered (Table 2).

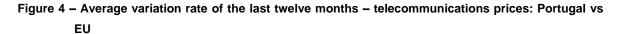
Table 2 - Trends in telecommunications prices: Portugal vs EU

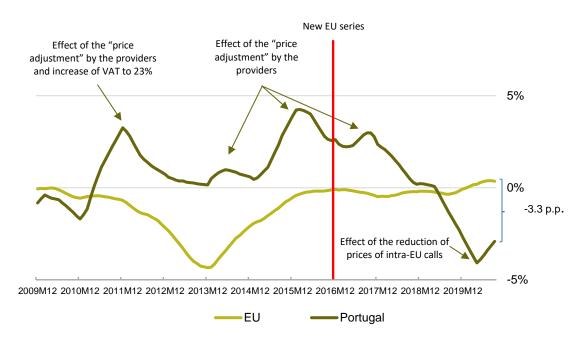
	September 2020			2019
	Var. YoY var.	Average var. of the last 12 months	Var. of previous month	Average var. of the last 12 months
EU (%)	-0.1	0.4	0.2	-0.1
Portugal (%)	-1.2	-2.9	0.0	-2.7
PT / EU deviation (p.p.)	-1.0	-3.3	-0.2	-2.6
Relative position (decreasing order among 27 countries)	19	25	10	23

Unit: %, p.p.
Source: Eurostat

Note 1: The differences between the values of Portugal in Tables 1 and 2 arise from the different number of decimal places with which the information is published by INE (CPI) and Eurostat (HICP), and the consequent rounding off.

Between April 2011 and May 2019, telecommunications prices grew more in Portugal than in the EU (in terms of the average variation rate of the last twelve months), above all due to the "price adjustments" referred to above. However, since June 2019, the variation of telecommunications prices in Portugal has been lower than the EU average (Figure 4).





Unit: %

Source: ANACOM, based on Eurostat data

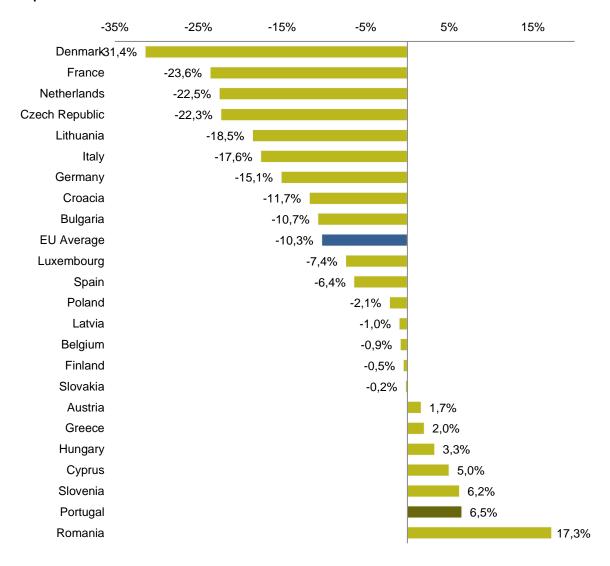
Note 1: Based on the publication, by Eurostat, on 25 February 2016, of data relative to January 2016, the reference year of the Harmonised Index of Consumer Prices (HICP) was changed from 2005 to 2015. There could be differences in the series due to the effect of rounding off.

rounding off.

Note 2: EU telecommunications prices from December 2016 differ from those published previously due to changes made by Eurostat. The information up to November 2016 was gathered on 16 March 2018. The information from December 2016 onwards was gathered on 16 October 2020.

Between the end of 2009 and September 2020, telecommunications prices in Portugal increased by 6.5%, while in the EU they fell by 10.3%. The difference narrowed following the entry into force on 15 May 2019 of the new European rules regulating the prices of intra-EU communications.

Figure 5 – Variation of the HICP of telecommunications in the EU between December 2009 and September 2020

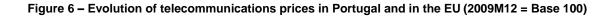


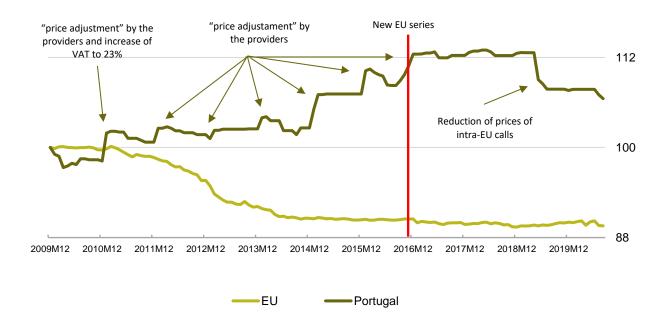
Unit: %

Source: ANACOM, based on Eurostat data

Note: Information not available for the United Kingdom, Ireland, Malta, Sweden and Estonia.

The differences between the evolution of the telecommunications prices in Portugal and in the EU was primarily due to the aforesaid "price adjustments".





Unit: index (2009M12 = Base 100) Source: ANACOM, based on Eurostat data

Note: EU telecommunications prices from December 2016 differ from those published previously due to changes made by Eurostat. The information up to November 2016 was gathered on 16 March 2018. The information from December 2016 onwards was gathered on 16 October 2020.

3. Minimum monthly charge per service and offer

According to the publicly available information on the websites of the three providers with the highest share of subscribers, in September 2020 the lowest monthly charges of the different services and offers are those shown in Table 3.

Table 3 – Minimum monthly charge by type of offer – September 2020

	MEO	NOS	Vodafone
TVS	17.06	13.49	29.90
BLF	24.99	24.99	25.90
STF	12.49	12.58	0.29
STM	0.36	1.11	1.11
STM with internet on mobile phone	7.50	12.00	12.50
BLM PC/Tablet	13.41	15.00	16.00
BLF+TVS	29.99	29.99	29.90
BLF+STF	26.99	29.99	25.90
TVS+STF	29.99	13.49	29.90
BLF+TVS+STF	29.99	29.99	29.90
BLF+TVS+STF+STM	49.82	49.82	49.74
BLF+TVS+STF+STM with internet on mobile phone	49.82	49.82	49.74
BLF+TV+STF+STM with internet on mobile phone +BLM PC/Tablet	54.62	54.62	54.53

Unit: Euros including VAT

Source: ANACOM

Note 1: TVS – Subscription TV signal distribution service; BLF – Fixed broadband; STF – Fixed telephone service; STM – Mobile telephone service; BLM – Mobile broadband supported by PC/tablet.

Note 2: The minimum monthly charges for each service/offer are highlighted in bold.

Among the services considered, the lowest monthly charges are offered by Vodafone in seven cases, while MEO and NOS show the lowest monthly charges in four and three cases, respectively.

Compared to the same month of the previous year, the lowest charges of individualised fixed broadband, of the most common double play (2P) packages, which include fixed

internet, and of the quadruple play (4P) and quintuple play (5P) packages increased between 3.8% and 7.2% (Table 4).

The increase of the price of fixed broadband offers was due to a change of the prices of NOS offers of fixed internet supported by mobile networks.

In the case of the Fixed broadband plus Fixed telephone service (BLF+STF) double play types of offers, the increase was due to the end of the free offer of the first monthly charge of Vodafone's "Net Voice" package.

In relation to the quadruple play offers, the change was due to an increase of the monthly charge of a NOS 4P offer.

Table 4 – Year-on-year variation rate of the minimum monthly charge by type of offer – September 2020

	Total	MEO	NOS	Vodafone
TVS	0.0	0.0	0.0	0.0
BLF	7.2	-7.4	7.2	4.3
STF	0.0	0.0	1.0	0.0
STM	0.0	0.0	0.0	0.0
STM with internet on mobile phone	0.0	0.0	0.0	0.0
BLM PC/Tablet	0.0	0.0	0.0	0.0
BLF+TVS	0.0	0.0	0.0	0.0
BLF+STF	4.3	0.0	11.0	4.3
TVS+STF	0.0	0.0	0.0	0.0
BLF+TVS+STF	0.0	0.0	0.0	0.0
BLF+TVS+STF+STM	3.8	0.0	4.0	0.0
BLF+TVS+STF+STM with internet on mobile phone BLF+TV+STF+STM	3.8	0.0	4.0	0.0
with internet on mobile phone +BLM PC/Tablet	0.0	0.0	0.0	0.0

Unit: % Source: ANACOM

Note: TVS – Subscription TV signal distribution service; BLF – Fixed broadband; STF – Fixed telephone service; STM – Mobile telephone service; BLM – Mobile broadband supported by PC/tablet.

Among the services/offers considered, MEO decreased the minimum monthly charge of one service/offer in relation to the same month of the previous year, while NOS and Vodafone increased the monthly charges in five and two services/offers, respectively.

Table 5 Shows the average variation rate of the last 12 months for each of the types of offer. The discontinuation of the customised offers (i.e. "MEO by" and "Fibra ID") in September and May 2019, respectively, contributed to the increase of the average variation rate of the quadruple play and quintuple play offers in that period.

Table 5 – Average variation rate of the last 12 months of the minimum monthly charge by type of offer – September 2020

	Total	MEO	NOS	Vodafone
TVS	0.0	0.0	0.0	1.1
BLF	17.7	14.5	15.2	14.3
STF	0.0	0.0	0.9	0.0
STM	0.0	0.0	82.1	82.1
STM with internet on mobile phone	0.0	0.0	0.0	0.0
BLM PC/Tablet	0.0	0.0	0.0	0.0
BLF+TVS	24.5	2.9	23.9	1.1
BLF+STF	12.6	16.6	6.1	4.0
TVS+STF	0.0	2.1	0.0	1.1
BLF+TVS+STF	1.1	2.1	1.1	1.1
BLF+TVS+STF+STM	13.0	13.2	3.5	9.4
BLF+TVS+STF+STM with internet on mobile phone	13.0	13.2	3.5	9.4
BLF+TV+STF+STM with internet on mobile phone +BLM PC/Tablet	17.4	15.8	-5.8	11.0

Unit: %

Source: ANACOM

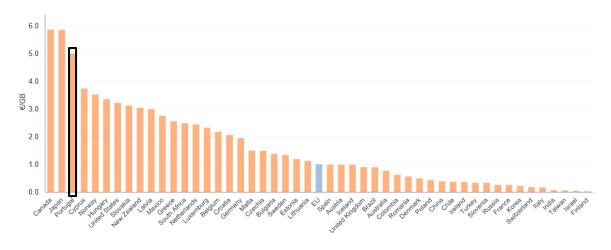
Note: TVS – Subscription TV signal distribution service; BLF – Fixed broadband; STF – Fixed telephone service; STM – Mobile telephone service; BLM – Mobile broadband supported by PC/tablet.

4. International comparisons of prices of mobile internet services

In addition to the institutions that carry out or promote international comparisons of telecommunications prices, other entities have disclosed price comparisons using alternative methods. This is the case of Rewheel which regularly publishes the "Digital Fuel Monitor".

According to this comparison, in the second half of 2020 the median price per gigabyte of the mobile internet offers in Portugal was the highest in terms of the EU and the 3rd highest among the 48 countries analysed.

Figure 7 – Median price per gigabyte in the 2nd half of 2020 – Mobile internet plans with at least 1000 minutes and 0.5 Mbps.

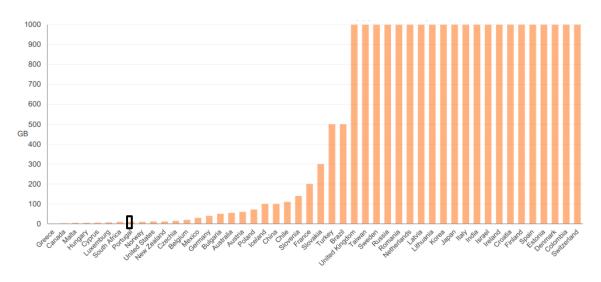


Unit: euros

Source: Rewheel "The state of the 4G&5G broadband pricing - 2H2020"

On the other hand, the relatively high price/gigabyte price in Portugal is likewise illustrated by the traffic that can be bought for 30 euros. Portugal was ranked the 6th country of the EU and the 8th among the 48 countries analysed where 30 euros bought less mobile internet traffic.

Figure 8 – GB that can be bought for 30 euros in the 2nd half of 2020 – Mobile internet plans with at least 1000 minutes and 10 Mbps.

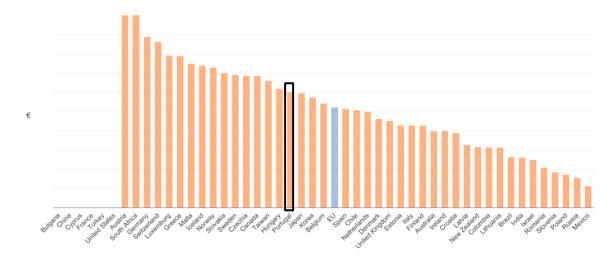


Unit: euros

Source: Rewheel "The state of the 4G&5G broadband pricing – 2H2020"

Lastly, according to this study, the median price of the unlimited mobile internet offers is above the EU average.

Figure 9 – Median price for unlimited internet on the mobile phone in the 2nd half of 2020 – Mobile internet plans with at least 1000 minutes and 0.5 Mbps.



Unit: euros

Source: Rewheel "The state of the 4G&5G broadband pricing – 2H2020"

Methodological note

a. Sources

- "Consumer Price Index September 2020" (INE, 2020), available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_destaques&DESTAQUESdest_boui=415206186&DESTAQUESmodo=2
- "HICP- monthly data" (Eurostat, 2020), available at http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_midx&lang=en. The methodology used is available at http://ec.europa.eu/eurostat/statistics-explained/index.php/HICP_methodology
- Pricing available on the websites of the three providers with the highest national coverage (MEO, NOS and Vodafone).
- "The state of the 4G&5G broadband pricing 2H2020" (Rewheel, 2020), available at http://research.rewheel.fi/downloads/The state of 4G 5G pricing DFMonitor 14 release 2H2020 PUBLI C.pdf

b. Definitions

- Year-on-year variation rate: compares the level of the variable between the current month and the same month
 of the previous year. This variation rate, assuming a stable seasonality pattern, is not affected by fluctuations
 of this nature but, nevertheless, may be influenced by localised effects in one (or in both) of the months that
 are compared see http://smi.ine.pt/VariavelFisica/Detalhes?id=4263&LANG=PT
- Average variation rate of the last twelve months: compares the level of the average price index of the last
 twelve months with that of the immediately preceding twelve months. Due to being a mobile average, this
 variation rate is less sensitive to sporadic changes in prices. The value obtained in the month of December
 has been used as a reference in the sphere of social dialogue, for this reason being associated to the annual
 inflation rate see https://www.ine.pt/bddXplorer/htdocs/minfo.jsp?var_cd=0002390&lingua=PT

c. Notes

- The trends in telecommunications prices presented in this report are derived from the variation of the "Telephone and telefax services" sub-index of the Consumer Price Index (CPI) and Harmonised Index of Consumer Prices (HICP), which aggregates the voice, Internet and TV signal distribution services by subscription acquired in an individualised or package form. The information presented herein should be complemented with an appraisal of the features of the offers, the details of which are available in the reports on "Packages of electronic communications services", "Fixed telephone and nomadic VoIP service", "Mobile services", "Internet access service" and "Subscription television service" available on ANACOM's website.
- EU telecommunications prices do not include information relative to the United Kingdom.
- EU telecommunications prices from December 2016 differ from those published previously due to changes made by Eurostat. The information up to November 2016 was gathered on 16 March 2018. The information from December 2016 onwards was gathered on 16 October 2020.

d. Evolution of the minimum monthly charge by type of offer	
The minimum monthly charge was estimated for each type of individualised service and bundled offer features of the offers or utilisation requirements and the number of services included, considering a months. In the case of mobile offers, 1 minute/1 SMS of utilisation is considered, in order to take into voice/SMS offers.	loyalty period of 24
The monthly prices are taken from the websites of the three providers with the highest national co and Vodafone), which account for close to 95% of the telecommunications market in Portugal.	verage (MEO, NO
The calculated indicators are the monthly variation, the variation in relation to the same month of the the average variation of the last twelve months. The calculation of these indicators follows the calculation used by INE for the consumer price index (CPI) – see https://smi.ine.pt/VariavelFisica/Detalhes? https://www.ine.pt/bddXplorer/htdocs/minfo.jsp?var_cd=0002390&lingua=PT	ulation formulas an