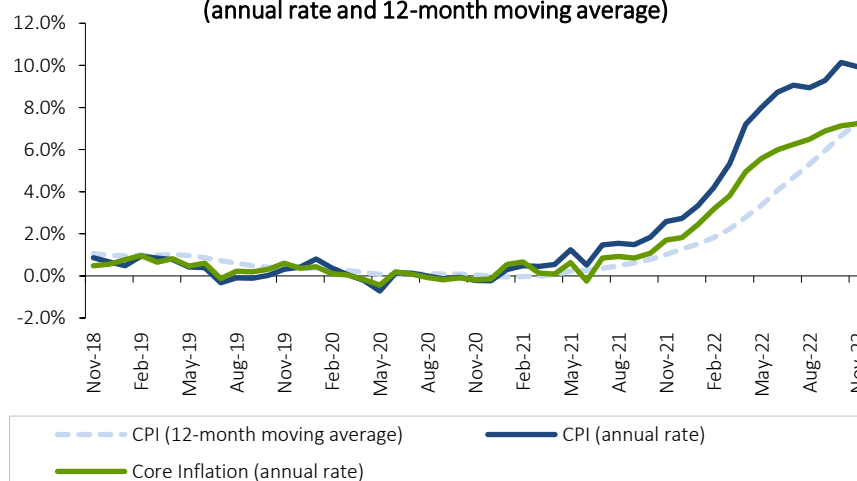## CPI ANNUAL RATE OF CHANGE DECREASES TO 9.9%

The Consumer Price Index (CPI) annual rate decreased to 9.9% in November 2022 (10.1% in October 2022). The annual core inflation rate, which excludes energy and unprocessed food products, was 7.2% (7.1% in the previous month). The annual rate of change of the index for energy products decreased to 24.7% (27.6% in October 2022) and the index for unprocessed food was 18.4% (18.9% in the previous month), while the processed food rate has increased to 16.8% (14.1% in October).

The CPI monthly rate was 0.3% (1.2% in October 2022 and 0.4% in November 2021), while the CPI 12-month average rate was 7.3% (6.7% in the previous month).

In November 2022, the Portuguese Harmonised Index of Consumer Prices (HICP) annual rate was 10.2% (10.6% in the previous month). This rate is 0.2 percentage points (p.p.) above the figure estimated by Eurostat for the Euro area (in October, the Portuguese rate was the same as the Euro area). Excluding energy and unprocessed food products, the Portuguese HICP increased by 8.1% in November (8.0% in October), above the corresponding rate for the Euro area (estimated at 6.6%).

Figure 1: Consumer price and core inflation indices
(annual rate and 12-month moving average)

Consumer Price Index (base 100 = 2012)

In November 2022, the annual inflation rate was 9.9% (10.1% in October) (see Fig. 1). When rounded to one decimal place, this coincides with the value provided in the flash estimate, which was released on October 30th (for further details on the differences between estimated and final CPI figures, see Table 3 on page 6 of this press release).

The annual core inflation rate, which excludes energy and unprocessed food products, was 7.2% (7.1% in October). The energy aggregate presented an annual rate of 24.7% (27.6% in the previous month), while unprocessed food recorded an annual rate of 18.4% in November (18.9% in October). The annual rate for processed food has increased to 16.8% (14.1% in October).

The largest upward contributions to the overall annual rate of change came from changes in the prices of *Food and non-alcoholic beverages*, *Housing, water, electricity, gas and other fuels, Transports* and *Restaurants and hotels*. Conversely, the only downward contribution came from changes in prices in *Health.*
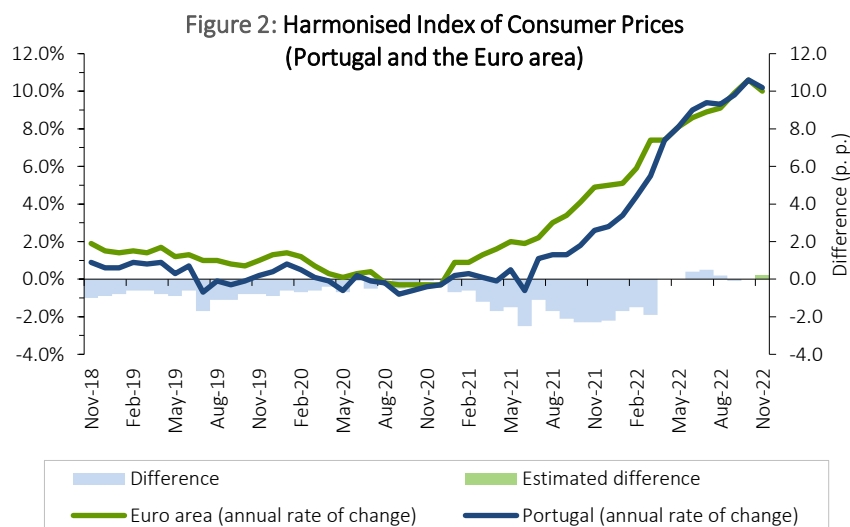
In November 2022, the CPI monthly rate was 0.3% (1.2% in October and 0.4% in November 2021). The main upward contributions to the monthly rate of change came from *Food and non-alcoholic beverages.* Conversely, the largest downward contribution was observed in *Restaurants and hotels.*

The CPI 12-month average rate was 7.3% in November (6.7% in the previous month).

Harmonised Index of Consumer Prices (base 100 = 2015)

In November 2022, the Portuguese HICP annual rate was 10.2% (10.6% in the previous month) and the monthly rate was nil (1.1% in the previous month and 0.3% in November 2021).

According to Eurostat's Flash Estimate, in November, the annual rate of change of the Portuguese HICP is estimated to be 0.2 p.p. above the Euro area rate (in October, the Portuguese rate was the same as the Euro area). Excluding energy and unprocessed food products, the Portuguese HICP increased to 8.1% in November (8.0% in October), above the corresponding rate for the Euro area (estimated at 6.6%).

Figure 2: Harmonised Index of Consumer Prices (Portugal and the Euro area)

Housing Rents

In November, the annual change rate of the housing rents for the whole country was 3.2% (3.1% in the previous month). The highest increase was observed in the Açores region (3.6%), with all regions displaying positive rates of change.

For the same period, the monthly rate of change of the average value of rents per square meter for the whole country was 0.3% (0.4% in the previous month). The main increase was observed in the Açores region (0.5%), and all the other regions presented positive rates.

METHODOLOGICAL NOTES

CONSUMER PRICE INDEX

The Consumer Price Index (CPI) measures the change over time of the prices of a certain basket of goods and services bought by a "typical" consumer. The CPI has been designed to capture price changes and not to measure price levels.

The CPI is updated every year with the most recent information on prices and quantities. The 2022 CPI weighting structure and the sample of goods and services included in the basket are a result of the combination of three fundamental sources of information: results of the Portuguese National Accounts, complemented with the Household Budget Survey and the Census for more detailed levels of expenditure. Administrative data is also used.

The CPI is compiled through the aggregation of seven regional price indexes and the goods and services included in the index are grouped according to the Classification of individual consumption by purpose (COICOP).

MONTHLY RATE

The monthly rate is the change in the index of a certain month compared with the index of the previous month expressed as a percentage. Although up to date, this measure can be affected by seasonal and other effects.

ANNUAL RATE

The annual rate is the change in the index of a certain month compared with the index of the same month in the previous year expressed as a percentage. In the presence of a stable seasonal pattern, seasonal effects do not influence this measure.

12-MONTH AVERAGE RATE

The 12-month average rate is the change in the average index of one year compared with the average index of the previous year expressed as a percentage. This moving average is less sensitive to transient changes in prices.

CORE INFLATION INDEX (ALL ITEMS CPI EXCLUDING UNPROCESSED FOOD AND ENERGY PRODUCTS)

The core inflation index is compiled by excluding the prices of unprocessed food and energy products from the All items CPI. The primary objective of this index is to capture the underlying inflation pressures in the economy.

The Harmonised Index of Consumer Prices (HICP) is compiled in each member state of the European Union for the purposes of inflation comparisons across EU countries, as required by the Treaty on European Union[1]. This index plays an important role as a guideline for the achievement of the European System of Central Banks primary objective: price stability. In 1998, the European Central Bank adopted the HICP as "the most appropriate price measure" for its definition of price stability in the Euro area[2].

The HICP is produced in each Member State following a harmonized methodology developed by experts in the field of price statistics, under the "Price Statistics Working Group" and related Task Forces. From the methodological point of view, there are no major differences between the HICP and CPI. However, the different scope of coverage leads to differences in the weighting structure, mainly in Restaurants and hotels. This is mostly an effect of the inclusion of non-residents expenditure ("tourists") in the HICP and the corresponding exclusion from the CPI.

Additional information on the methodology of the HICP is available at http://ec.europa.eu/eurostat/web/hicp.

Table 2: CPI and HICP 2022 weighting structures

COICOP[1] divisions		CPI	HICP
01	Food and non-alcoholic beverages	219.5	217.0
02	Alcoholic beverages and tobacco	38.3	37.9
03	Clothing and footwear	54.1	54.9
04	Housing, water, electricity, gas and other fuels	96.5	94.4
05	Furnishings, household equipment and routine household maintenance	72.4	71.6
06	Health	68.7	67.5
07	Transport	151.3	152.4
08	Communication	30.9	30.2
09	Recreation and culture	61.9	49.1
10	Education	19.7	19.3
11	Restaurants and hotels	81.6	102.5
12	Miscellaneous good and services	105.0	103.1
00	All items	1 000[2]	1 000[2]

Notes:

[1] COICOP – Classification of Individual Consumption by Purpose.

[2] Due to rounding, the sum of the parts may not add exactly to 1000.

[1] Article 109j and protocol on the convergence criteria referred to in that article.

[2] "A stability oriented monetary policy strategy for the ESCB". ECB press notice released on 13 October 1998.

PRESENTATION OF DATA AND ROUNDING RULES

Since the release of the January 2013 CPI indices are published with base 100 in the year 2012.

Due to rounding procedures, those indices may not reproduce exactly the published rates of change. However, it should be noted that the published rates prevail.

In this press release the descriptive analysis is based on rounded values to one decimal

DIFFERENCES BETWEEN ESTIMATED AND FINAL VALUES

In Table 3 some descriptive statistics are presented for the differences between the estimated and final values of the annual rate for the last 24 months. The table also includes the differences for the last three months, in p.p..

Table 3: Differences between the estimated and final values of the annual rate

	Differences last 24 months (p.p.)			Differences last 3 months (p.p.)		
	Mean	Max	Min	Sep-22	Oct-22	Nov-22
Total	-0.01	0.01	-0.07	-0.01	-0.01	0.00
All items excluding housing	-0.01	0.01	-0.07	-0.01	-0.02	-0.01
All items excl. unproc. food and energy	-0.01	0.02	-0.07	-0.01	-0.01	0.00
Unprocessed food	-0.02	0.02	-0.11	-0.01	-0.02	0.00
Energy	0.02	0.11	-0.08	0.00	-0.04	-0.03

Next flash estimate – December 30th ,2022

Next press release – January 11th, 2023

Annex 1: CPI rate of change (index division and all-items CPI)

Period		COICOP divisions												All-items CPI
		01	02	03	04	05	06	07	08	09	10	11	12	
Annual average rate (%)														
2019		0.32	2.01	-3.00	0.29	-0.28	0.82	1.14	-2.59	-0.02	0.93	0.97	1.56	**0.34**
2020		2.09	0.52	-3.40	0.07	-0.65	1.14	-2.08	-2.21	-1.92	-0.86	1.65	1.25	**-0.01**
2021		0.74	0.93	-0.18	1.64	-0.05	2.12	4.40	0.30	0.96	-0.84	-0.83	1.26	**1.27**
Annual rate (%)														
2020	November	2.06	0.54	-3.72	0.04	-0.51	2.33	-3.25	-1.50	-1.32	-1.49	0.46	1.20	**-0.22**
	December	1.52	1.40	-4.37	-0.04	-0.53	2.87	-2.50	-1.12	-2.12	-1.49	0.85	1.00	**-0.23**
2021	January	1.00	1.00	-1.50	-0.11	-0.70	2.79	-1.86	-1.18	-0.49	-1.42	0.79	1.33	**0.30**
	February	0.89	0.48	-2.44	-0.36	-0.65	2.75	-0.70	-0.50	0.15	-1.60	0.45	1.22	**0.48**
	March	0.77	0.07	-3.35	-0.09	-0.39	2.68	2.48	-0.69	0.89	-1.72	-0.64	0.94	**0.45**
	April	-0.79	1.29	2.87	1.34	-0.90	2.46	3.43	-0.70	-0.31	-1.70	-3.20	1.63	**0.55**
	May	0.55	1.53	3.25	1.53	-0.43	2.57	5.56	0.28	0.76	-1.64	-4.12	1.64	**1.24**
	June	-0.15	0.13	2.44	1.79	-0.86	2.37	3.84	0.21	0.90	-1.55	-6.21	1.60	**0.51**
	July	0.61	1.51	-0.64	1.54	-0.29	2.12	5.27	0.92	1.28	-1.40	-1.15	1.62	**1.47**
	August	0.61	1.63	-1.88	2.27	-0.13	2.22	5.78	1.10	0.44	-1.26	-1.41	1.38	**1.54**
	September	0.67	1.00	-1.98	2.39	0.70	2.03	6.44	1.29	0.71	-1.17	-0.36	1.10	**1.48**
	October	0.49	1.39	-1.18	3.05	0.85	1.82	7.48	1.45	1.03	1.12	0.90	0.53	**1.83**
	November	1.36	0.87	-0.15	3.19	1.35	1.09	8.79	0.51	3.05	1.15	2.75	0.94	**2.58**
	December	2.88	0.34	1.79	3.23	0.87	0.63	6.72	0.90	3.18	1.16	2.97	1.22	**2.74**
2022	January	3.71	1.11	2.38	4.51	3.84	0.88	6.24	2.64	3.15	1.11	3.57	1.08	**3.34**
	February	4.67	1.29	3.24	5.05	4.70	0.89	8.50	1.40	2.96	1.30	5.20	1.60	**4.19**
	March	7.24	2.59	0.06	5.36	5.56	1.12	11.00	1.84	3.06	1.44	6.60	2.05	**5.33**
	April	10.25	0.59	-0.72	10.19	6.88	1.38	13.09	3.18	4.91	1.42	9.93	2.06	**7.20**
	May	12.33	2.78	-0.05	13.42	8.74	1.43	10.80	2.18	5.68	1.42	10.86	2.13	**8.00**
	June	13.20	2.89	-0.47	13.50	10.18	-3.57	14.27	2.05	5.46	1.34	14.19	2.21	**8.73**
	July	13.89	2.83	0.05	16.62	10.51	-3.57	12.85	1.80	4.32	1.25	14.80	2.46	**9.06**
	August	15.34	2.80	-1.57	14.92	10.57	-3.49	10.43	2.05	3.95	1.17	16.33	2.71	**8.94**
	September	16.42	3.31	1.73	14.60	11.95	-3.55	9.15	1.84	3.15	1.26	17.74	3.02	**9.28**
	October	18.58	2.97	1.95	18.49	12.21	-3.21	9.94	1.44	3.39	2.51	16.29	2.59	**10.14**
	November	19.96	3.76	1.36	18.46	12.08	-2.34	7.94	1.92	3.33	2.60	12.83	2.85	**9.94**

Source: INE - Portugal

COICOP (Classification Of Individual Consumption by Purpose) divisions:

01	Food and non-alcoholic beverages		**07**	transport
02	Alcoholic beverages and tobacco		**08**	communication
03	Clothing and footwear		**09**	recreation and culture
04	Housing, water, electricity, gas and other fuels		**10**	education
05	Furnishings, household equipment and routine household maintenance		**11**	restaurants and hotels
06	Health		**12**	miscellaneous goods and services

Annex 2: HICP rate of change (international comparison)[1]

Period		EA[2]	EU[3]	BE	BG	CZ	DK	DE	EE	EL	ES	FR	HR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
Annual average rate (%)																														
2019		1.2	1.5	1.2	2.5	2.6	0.7	1.4	2.3	0.5	0.8	1.3	0.8	0.9	0.6	0.5	2.7	2.2	1.6	3.4	1.5	2.7	1.5	2.1	**0.3**	3.9	1.7	2.8	1.1	1.7
2020		0.3	0.7	0.4	1.2	3.3	0.3	0.4	-0.6	-1.3	-0.3	0.5	0.0	-0.5	-0.1	-1.1	0.1	1.1	0.0	3.4	0.8	1.1	1.4	3.7	**-0.1**	2.3	-0.3	2.0	0.4	0.7
2021		2.6	2.9	3.2	2.8	3.3	1.9	3.2	4.5	0.6	3.0	2.1	2.7	2.4	1.9	2.3	3.2	4.6	3.5	5.2	0.7	2.8	2.8	5.2	**0.9**	4.1	2.0	2.8	2.1	2.7
Annual rate (%)																														
2020	November	-0.3	0.2	0.2	0.3	2.8	0.4	-0.7	-1.2	-2.1	-0.8	0.2	0.0	-1.0	-0.3	-1.1	-0.7	0.4	-0.7	2.8	0.2	0.7	1.1	3.7	**-0.4**	1.7	-1.1	1.6	0.2	0.2
	December	-0.3	0.3	0.4	0.0	2.4	0.4	-0.7	-0.9	-2.4	-0.6	0.0	-0.3	-1.0	-0.3	-0.8	-0.5	-0.1	-0.3	2.8	0.2	0.9	1.0	3.4	**-0.3**	1.8	-1.2	1.6	0.2	0.6
2021	January	0.9	1.2	0.6	-0.3	2.2	0.4	1.6	0.3	-2.4	0.4	0.8	0.0	-0.1	0.7	-0.8	-0.5	0.2	1.1	2.9	0.2	1.6	1.1	3.6	**0.2**	2.0	-0.9	0.7	1.0	1.9
	February	0.9	1.3	0.3	0.2	2.1	0.5	1.6	0.5	-1.9	-0.1	0.8	0.7	-0.4	1.0	-0.9	-0.2	0.4	-0.5	3.3	0.1	1.9	1.4	3.6	**0.3**	2.5	-1.1	0.9	0.9	1.8
	March	1.3	1.7	1.6	0.8	2.3	0.9	2.0	0.9	-2.0	1.2	1.4	1.6	0.1	0.6	0.3	0.3	1.6	2.5	3.9	0.1	1.9	2.0	4.4	**0.1**	2.5	0.1	1.5	1.4	2.1
	April	1.6	2.0	2.1	2.0	3.1	1.5	2.1	1.6	-1.1	2.0	1.6	2.1	1.1	1.0	1.2	1.7	2.4	3.3	5.2	0.1	1.7	1.9	5.1	**-0.1**	2.7	2.2	1.7	2.2	2.8
	May	2.0	2.3	2.5	2.3	2.7	1.9	2.4	3.2	-1.2	2.4	1.8	2.4	1.9	1.2	1.5	2.6	3.5	4.0	5.3	0.2	2.0	3.0	4.6	**0.5**	3.2	2.2	2.0	2.3	2.4
	June	1.9	2.2	2.6	2.4	2.5	1.9	2.1	3.7	0.6	2.5	1.9	2.2	1.6	1.3	2.2	2.7	3.5	3.4	5.3	0.2	1.7	2.8	4.1	**-0.6**	3.5	1.7	2.5	1.9	1.8
	July	2.2	2.5	1.4	2.2	2.7	1.7	3.1	4.9	0.7	2.9	1.5	2.7	2.2	1.0	2.7	2.8	4.3	3.3	4.7	0.3	1.4	2.8	4.7	**1.1**	3.8	2.0	2.9	1.8	1.8
	August	3.0	3.2	4.7	2.5	3.1	1.8	3.4	5.0	1.2	3.3	2.4	3.1	3.0	2.5	3.3	3.6	5.0	3.5	4.9	0.4	2.7	3.2	5.0	**1.3**	4.0	2.1	3.3	1.8	2.5
	September	3.4	3.6	3.8	4.0	4.0	2.4	4.1	6.4	1.9	4.0	2.7	3.5	3.8	2.9	3.6	4.7	6.4	4.0	5.5	0.7	3.0	3.3	5.6	**1.3**	5.2	2.7	4.0	2.1	3.0
	October	4.1	4.4	5.4	5.2	4.8	3.2	4.6	6.8	2.8	5.4	3.2	3.9	5.1	3.2	4.4	6.0	8.2	5.3	6.6	1.4	3.7	3.8	6.4	**1.8**	6.5	3.5	4.4	2.8	3.3
	November	4.9	5.2	7.1	6.3	4.8	3.8	6.0	8.6	4.0	5.5	3.4	4.7	5.4	3.9	4.7	7.4	9.3	6.3	7.5	2.4	5.9	4.1	7.4	**2.6**	6.7	4.9	4.8	3.5	3.9
	December	5.0	5.3	6.6	6.6	5.4	3.4	5.7	12.0	4.4	6.6	3.4	5.2	5.7	4.2	4.8	7.9	10.7	5.4	7.4	2.6	6.4	3.8	8.0	**2.8**	6.7	5.1	5.1	3.2	4.5
2022	January	5.1	5.6	8.5	7.7	8.8	4.9	5.1	11.0	5.5	6.2	3.3	5.5	5.0	5.1	5.0	7.5	12.3	4.6	7.9	4.1	7.6	4.5	8.7	**3.4**	7.2	6.0	7.7	4.1	3.9
	February	5.9	6.2	9.5	8.4	10.0	5.3	5.5	11.6	6.3	7.6	4.2	6.3	5.7	6.2	5.8	8.8	14.0	7.8	8.4	4.2	7.3	5.5	8.1	**4.4**	7.9	7.0	8.3	4.4	4.4
	March	7.4	7.8	9.3	10.5	11.9	6.0	7.6	14.8	8.0	9.8	5.1	7.3	6.9	6.8	6.2	11.5	15.6	7.9	8.6	4.5	11.7	6.6	10.2	**5.5**	9.6	6.0	9.6	5.8	6.3
	April	7.4	8.1	9.3	12.1	13.2	7.4	7.8	19.1	9.1	8.3	5.4	9.6	7.3	6.3	8.6	13.1	16.6	9.0	9.6	5.4	11.2	7.1	11.4	**7.4**	11.7	7.4	10.9	5.8	6.6
	May	8.1	8.8	9.9	13.4	15.2	8.2	8.7	20.1	10.5	8.5	5.8	10.7	8.3	7.3	8.8	16.8	18.5	9.1	10.8	5.8	10.2	7.7	12.8	**8.1**	12.4	8.7	11.8	7.1	7.5
	June	8.6	9.6	10.5	14.8	16.6	9.1	8.2	22.0	11.6	10.0	6.5	12.1	9.6	8.5	9.0	19.2	20.5	10.3	12.6	6.1	9.9	8.7	14.2	**9.0**	13.0	10.8	12.6	8.1	8.9
	July	8.9	9.8	10.4	14.9	17.3	9.6	8.5	23.2	11.3	10.7	6.8	12.7	9.6	8.4	10.6	21.3	20.9	9.3	14.7	6.8	11.6	9.4	14.2	**9.4**	13.0	11.7	12.8	8.0	8.3
	August	9.1	10.1	10.5	15.0	17.1	9.9	8.8	25.2	11.2	10.5	6.6	12.6	9.0	9.1	9.6	21.4	21.1	8.6	18.6	7.0	13.7	9.3	14.8	**9.3**	13.3	11.5	13.4	7.9	9.5
	September	9.9	10.9	12.1	15.6	17.8	11.1	10.9	24.1	12.1	9.0	6.2	12.6	8.6	9.4	9.0	22.0	22.5	8.8	20.7	7.4	17.1	11.0 Rc	15.7	**9.8**	13.4	10.6	13.6	8.4	10.3
	October	10.6	11.5	13.1	14.8	15.5	11.4	11.6	22.5	9.5	7.3	7.1	12.7	9.4	12.6	8.6	21.7	22.1	8.8	21.9	7.4	16.8	11.5	16.4	**10.6**	13.5	10.3	14.5	8.4	9.8
	November	10.0 f	x	10.5 f	x	x	x	11.3 f	21.4 f	9.0 f	6.6 f	7.1 f	x	9.0 f	12.5 f	8.3 f	21.7 f	21.4 f	7.3 f	x	7.2 f	11.2 f	11.1 f	x	**10.2**	x	10.8 f	15.1 f	9.0 f	x

Symbols: f estimated   Po provisional   Rc revised   x not available

Notes:
[1] Rates of change calculated based on indexes rounded up to two decimal places.
[2] Member States belonging to the Euro area: EA-13 until Dec-2007, EA-15 until Dec-2008, EA-16 until Dec-2010, EA-17 until Dec-2013, EA-18 until Dec-2014, EA-19 onwards.
[3] European Index of Consumer Prices: EU-15 until Apr-2004, EU-25 until Dec-2006, EU-27 until Jun-2013, EU-28 until Jan-2020 and EU-27 onwards.

Member State codes:

BE Belgium	**DK** Denmark	**EL** Greece	**IE** Ireland
BG Bulgaria	**DE** Germany	**ES** Spain	**IT** Italy
CZ Czechia	**EE** Estonia	**FR** France	**CY** Cyprus

LV Latvia	**HR** Croatia	**NL** Netherlands	**PT** Portugal	**SK** Slovakia
LT Lithuania	**HU** Hungary	**AT** Austria	**RO** Romania	**FI** Finland
LU Luxembourg	**MT** Malta	**PL** Poland	**SI** Slovenia	**SE** Sweden

Source: INE and Eurostat