



January 11<sup>th</sup>, 2022

CONSUMER PRICE INDEX

December 2022

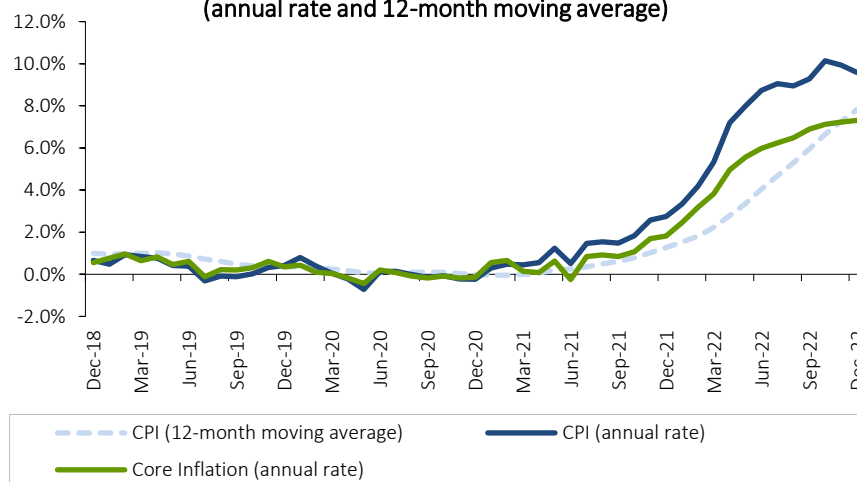
## THE CPI ANNUAL AVERAGE RATE OF CHANGE WAS 7.8% IN 2022 AND THE RATE OF CHANGE ON A YEAR EARLIER DECREASED TO 9.6% IN DECEMBER

In 2022, the average rate of change of the Portuguese Consumer Price Index (CPI) was 7.8%, significantly higher than in the previous year (1.3%) and the highest rate since 1992. Excluding energy and unprocessed food, the average rate of change was 5.6% in 2022 (0.8% in the previous year). The CPI annual rate increased significantly throughout 2022, particularly in the first half of the year. In the second half of 2022 the CPI annual rate remained high but there was a deceleration in prices in the last two months of the year.

The CPI annual rate was 9.6% in December (9.9% in November). The annual core inflation rate, which excludes energy and unprocessed food products components, was 7.3% (7.2% in the previous month), the highest rate since December 1993. The CPI monthly rate was -0.3% (0.3% in November and nil in December 2021).

In 2022, the annual average rate of change of the Portuguese Harmonised Index of Consumer Prices (HICP) was 8.1% (0.9% in 2021). In December 2022, the HICP annual rate of change was 9.8% (10.2% in the previous month). This rate is 0.6 percentage points (p.p.) above the figure estimated by Eurostat for the Euro area (in November, this difference was 0.1 p.p.).

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

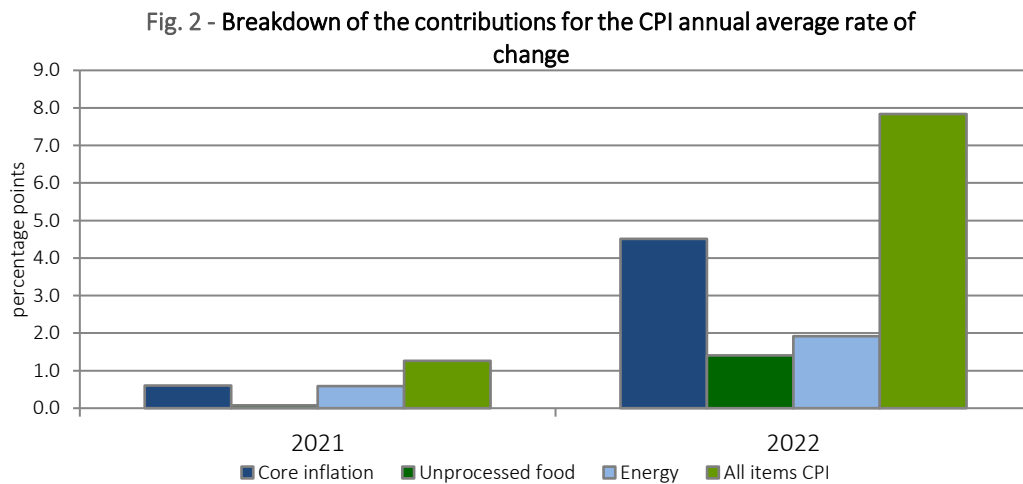




## Consumer Price Index (base 100 = 2012)

The annual average rate of change of the Portuguese Consumer Price Index (CPI) was 7.8% in 2022 (1.3% in 2021), the highest rate since 1992. The annual average core inflation rate, which excludes unprocessed food and energy, was 5.6% (0.8% in 2021).

The increase of the average rate of change of the CPI between 2021 and 2022 was influenced by the already mentioned behaviour of core inflation and also by the acceleration in prices of unprocessed food and energy (see Fig.2), which recorded average rates of change of 12.2% and 23.7% respectively (0.6% and 7.3% in 2021).



In December 2021, the annual inflation rate was 9.6% (9.9% in November) (see Fig. 1). When rounded to one decimal place, this figure coincides with the value provided in the flash estimate, which was released on December 30<sup>th</sup> (for further details on the differences between estimated and final CPI figures, see Table 2 on page 6 of this press release).

The annual core inflation rate, which excludes energy and unprocessed food products, was 7.3% (7.2% in November), the highest rate since December 1993. The energy aggregate presented an annual rate of 20.8% (24.7% in the previous month). Unprocessed food recorded an annual rate of 17.6% in December (18.4% in November), while the processed food rate increased to 17.5% (16.8% in November).

The largest upward contribution 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, Furnishings, household equipment and routine maintenance of the house, Restaurants and hotels and Transports*. The only downward contribution to the annual rate of change came from changes in prices of *Health*.

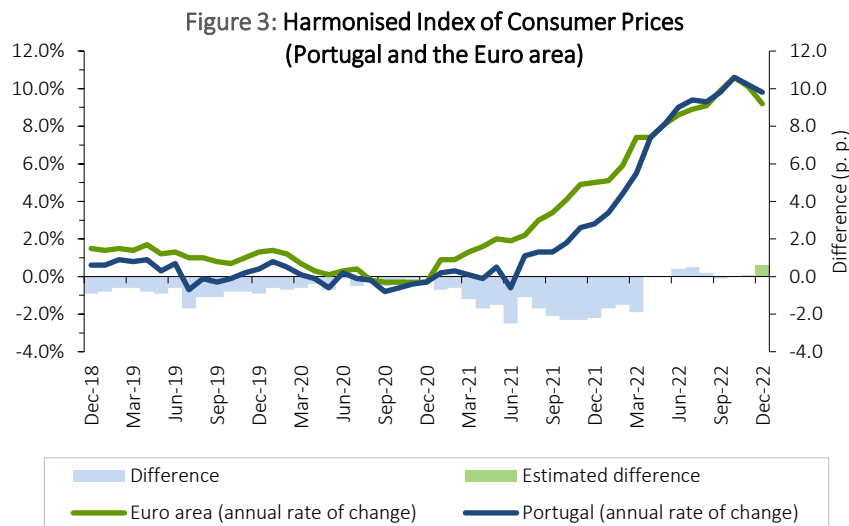
In December 2022, the CPI monthly rate was -0.3% (0.3% in the previous month and nil in December 2021). The main upward contribution to the monthly rate of change came from price changes in *Food and non-alcoholic beverages*. Conversely, the largest downward contribution was observed in *Transports*.



## Harmonised Index of Consumer Prices (base 100 = 2015)

In December 2022, the Portuguese HICP annual rate was 9.8% (10.2% in the previous month) and the monthly rate was -0.4% (nil in the previous month and in December 2021).

According to Eurostat's Flash Estimate, in December, the annual rate of change of the Portuguese HICP is estimated to be 0.6 p.p. higher than the Euro area rate (in November, this difference was 0.1 p.p.). Excluding energy and unprocessed food products, the Portuguese HICP decreased to 8.0% in December (8.1% in November), above the corresponding rate for the Euro area (estimated at 6.9%).



## Housing Rents

In December, the annual change rate of the housing rents for the whole country was 3.3% (3.2% in the previous month). The highest increases were observed in the Lisboa and Açores regions (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 0.2% (0.1% in November). The main increase was observed in the Madeira region (0.4%) while all the other regions also presented positive rates of change.

In 2022, the 12-month average rate of change for of the average value of rents per square meter of living area for the whole country was 2.7% (1.8% in 2021)<sup>1</sup>. The main increase was recorded in the Lisboa region (2.9%) and all the other regions presented positive rates.

<sup>1</sup> It is important to note that the housing rents component of the CPI takes into account the full stock of rented dwellings and cannot be compared to the results of the *House rental statistics at local level*, that are also published by INE, for which only the new lease agreements are considered.



## 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 2020 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.



## HARMONISED INDEX OF CONSUMER PRICES

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<sup>2</sup>. 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<sup>3</sup>.

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 1: CPI and HICP 2022 weighting structures

COICOP <sup>1</sup> 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
<b>00 All items</b>	<b>1 000<sup>2</sup></b>	<b>1 000<sup>2</sup></b>

**Notes:**

<sup>1</sup> COICOP – Classification of Individual Consumption by Purpose.

<sup>2</sup> Due to rounding, the sum of the parts may not add exactly to 1000.

<sup>2</sup> Article 109j and protocol on the convergence criteria referred to in that article.

<sup>3</sup> “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 2 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 2: 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	Oct-22	Nov-22	Dec-22
Total	-0.01	0.01	-0.07	-0.01	0.00	<b>-0.01</b>
All items excluding housing	-0.01	0.01	-0.07	-0.02	-0.01	<b>-0.01</b>
All items excl. unproc. food and energy	-0.01	0.02	-0.07	-0.01	0.00	<b>0.00</b>
Unprocessed food	-0.02	0.02	-0.11	-0.02	0.00	<b>0.01</b>
Energy	0.01	0.11	-0.08	-0.04	-0.03	<b>-0.07</b>

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**Next flash estimate** – January 31<sup>st</sup>, 2023

**Next press release** – February 10<sup>th</sup>, 2023

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## 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	
<b>Annual average rate (%)</b>													
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	<b>-0.01</b>
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	<b>1.27</b>
2022	12.99	2.58	0.77	12.84	9.19	-1.36	10.00	1.88	3.92	1.62	11.67	2.33	<b>7.83</b>
<b>Annual rate (%)</b>													
2020 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	<b>-0.23</b>
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	<b>0.30</b>
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	<b>0.48</b>
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	<b>0.45</b>
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	<b>0.55</b>
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	<b>1.24</b>
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	<b>0.51</b>
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	<b>1.47</b>
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	<b>1.54</b>
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	<b>1.48</b>
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	<b>1.83</b>
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	<b>2.58</b>
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	<b>2.74</b>
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	<b>3.34</b>
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	<b>4.19</b>
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	<b>5.33</b>
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	<b>7.20</b>
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	<b>8.00</b>
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	<b>8.73</b>
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	<b>9.06</b>
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	<b>8.94</b>
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	<b>9.28</b>
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	<b>10.14</b>
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	<b>9.94</b>
December	19.91	3.96	1.60	18.42	12.88	-2.29	5.87	0.28	3.78	2.59	11.24	3.17	<b>9.59</b>

Source: INE - Portugal

### COICOP (Classification Of Individual Consumption by Purpose) divisions:

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



Annex 2: HICP rate of change (international comparison)<sup>1</sup>

Period	EA <sup>2</sup>	EU <sup>3</sup>	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	
<b>Annual average rate (%)</b>																														
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	
2022	8.4 f	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	8.1	x	x	x	x	x	
<b>Annual rate (%)</b>																														
2020	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	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	11.6	16.4	10.6	13.5	10.3	14.5	8.4	9.8
	November	10.1	11.1	10.5	14.3	17.2	9.7	11.3	21.4	8.8	6.7	7.1	13.0	9.0	12.6	8.1	21.7	21.4	7.3	23.1	7.2	11.3	11.2	16.1	10.2	14.6	10.8	15.1	9.1	10.1
	December	9.2 f	x	10.2 f	x	x	x	9.6 f	17.5 f	7.6 f	5.6 f	6.7 f	x	8.2 f	12.3 f	7.6 f	20.7 f	20.0 f	6.2 f	x	7.3 f	11.0 f	10.5 f	x	9.8	x	10.8 f	15.0 f	8.9 f	x

Symbols: f estimated Po provisional Rc revised x not available

Notes: <sup>1</sup> Rates of change calculated based on indexes rounded up to two decimal places.

<sup>2</sup> 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.

<sup>3</sup> 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.

<b>Member State codes:</b>	BE Belgium	DK Denmark	EL Greece	IE Ireland	LV Latvia	HR Croatia	NL Netherlands	PT Portugal	SK Slovakia
	BG Bulgaria	DE Germany	ES Spain	IT Italy	LT Lithuania	HU Hungary	AT Austria	RO Romania	FI Finland
<b>Source:</b> INE and Eurostat	CZ Czechia	EE Estonia	FR France	CY Cyprus	LU Luxembourg	MT Malta	PL Poland	SI Slovenia	SE Sweden