

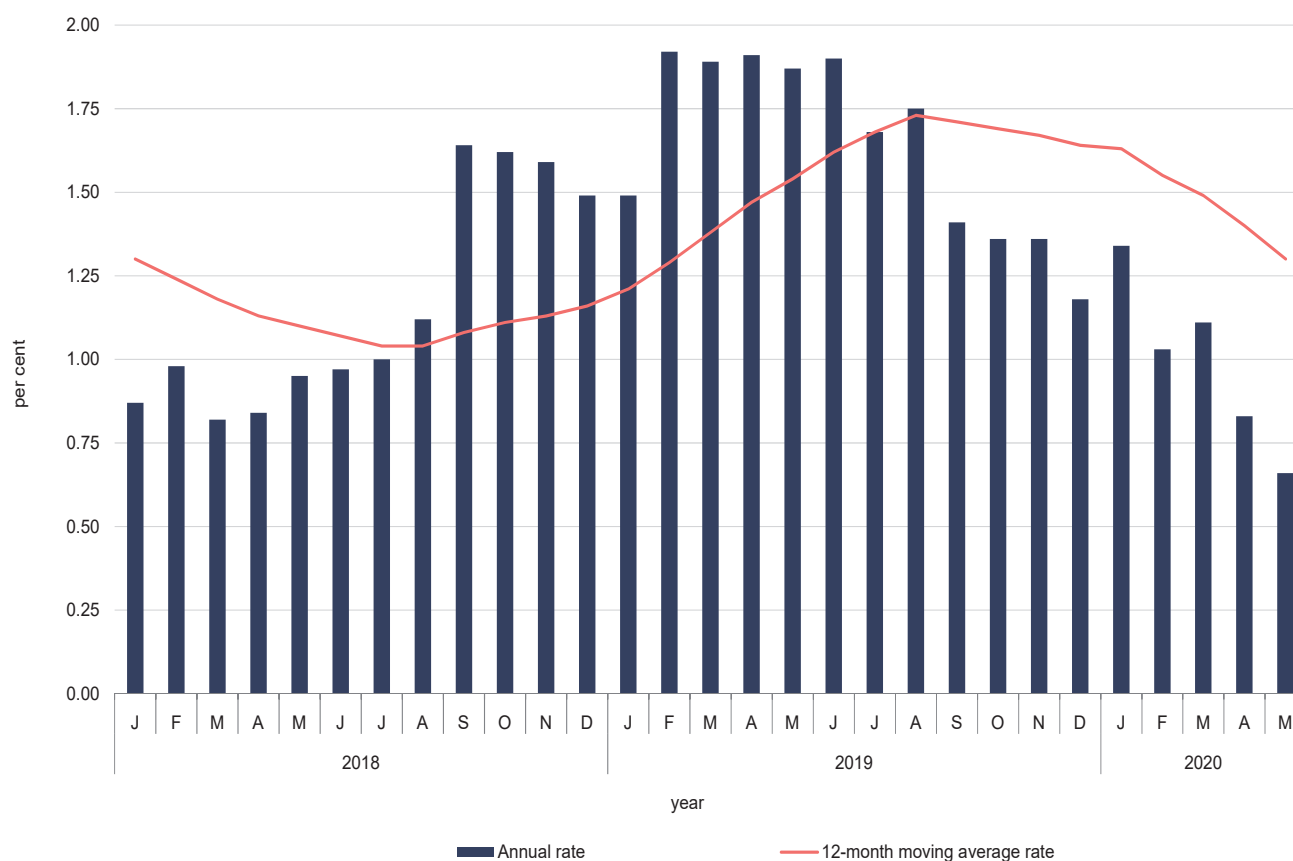
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## Retail Price Index: May 2020

### 1. Main points

- In May 2020, the annual rate of inflation as measured by the Retail Price Index (RPI) was 0.66 per cent, down from 0.83 per cent in April 2020 (Table 2).
- The twelve-month moving average rate for May stood at 1.30 per cent (Table 2).<sup>1</sup>
- The largest upward impact on annual inflation was measured in the Food Index, while the largest downward impact was recorded in the Recreation and Culture Index (Chart 3).

Chart 1. Inflation rates



The COVID-19 situation presented challenges to the established data collection processes. To preserve continuity and, in the case of the RPI, to ensure that developments in prices continue to be measured systematically and reliably, the NSO has adapted its methodology, consistent to the one adopted in the HICP compilation. This was developed in full collaboration with Eurostat and the Member States' National Statistical Institutes. Details on the compilation of the RPI within the context of COVID-19 are available in the methodological notes.

<sup>1</sup> This rate of inflation, that factors in aspects of seasonality, is widely used in Malta to make cost-of-living adjustments. It is also used to update the index of inflation in continuation of the Schedule to the Housing (Decontrol) Ordinance (CAP.158, Art.13) of the Laws of Malta, on the basis of the All Items Retail Price Index.

## 2. Overview

The Retail Price Index measures monthly price changes in the cost of purchasing a representative basket of consumer goods and services, and is closely linked with the cost-of-living adjustment (COLA) increases and periodic rent payment adjustments. A closely related measure of price movements is the Harmonised Index of Consumer Prices (HICP). For a description of the differences between the RPI and the HICP, refer to page 5 of this release.

Each monthly RPI News Release includes three different measures of inflation:

- i. The annual inflation rate measures average price changes between the reference month and the same month of the previous year. Although responsive to recent changes in price levels, this measure can be influenced by one-off effects in either month.
- ii. The monthly inflation rate compares price changes between the reference month and the previous month. This measure can be highly influenced by seasonal effects.
- iii. The 12-month moving average rate overcomes the volatility of the above two rates by comparing the average of the latest 12 indices to the average of the previous 12 indices. This measure is less sensitive to temporary changes in prices. Thus, this rate is used for the computation of the COLA and adjustments in wages, rents, etc.

## 3. Price changes and effects on inflation

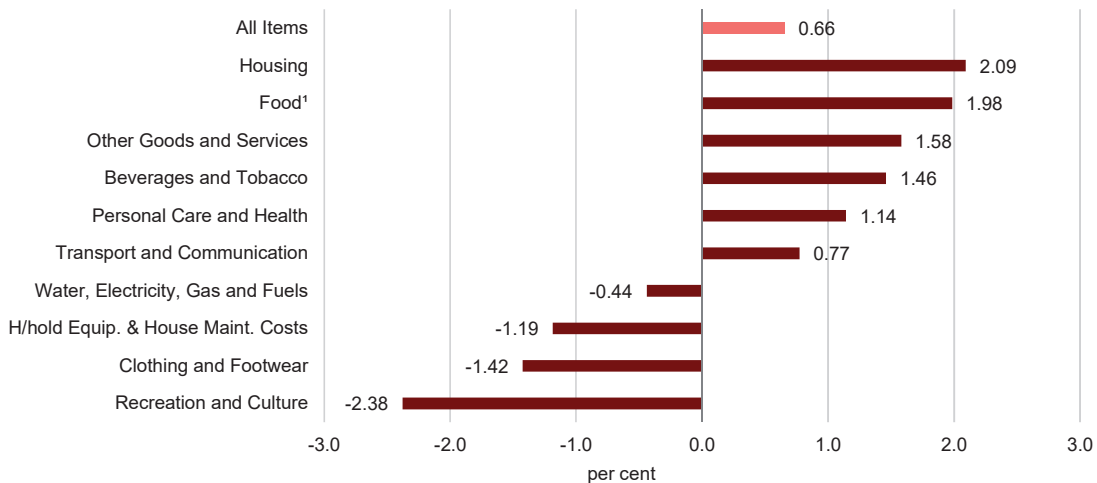
Table 1 shows that the highest annual inflation rates in May 2020 were registered in the following main groups: Housing (2.09 per cent) and Food (1.98 per cent). On the other hand, the lowest annual inflation rates were registered in Recreation and Culture (-2.38 per cent) and Clothing and Footwear (-1.42 per cent).

**Table 1. RPI group indices**  
December 2016=100

Group	Weight	Indices			Annual rate (%)	Monthly rate (%)
		May 2019	Apr 2020	May 2020	May 2020	May 2020
Food <sup>1</sup>	<b>21.49</b>	106.09	109.23	108.20	1.98	-0.95
Beverages and Tobacco	<b>5.56</b>	104.04	105.55	105.56	1.46	0.00
Clothing and Footwear	<b>6.62</b>	93.01	89.03	91.69	-1.42	2.98
Housing	<b>7.90</b>	103.17	105.24	105.33	2.09	0.08
Water, Electricity, Gas and Fuels	<b>3.31</b>	100.78	100.33	100.33	-0.44	0.00
Household Equipment and House Maintenance Costs	<b>6.97</b>	102.74	101.70	101.52	-1.19	-0.18
Transport and Communication	<b>22.10</b>	102.44	103.49	103.23	0.77	-0.25
Personal Care and Health	<b>8.81</b>	102.96	103.88	104.14	1.14	0.25
Recreation and Culture	<b>9.90</b>	103.09	100.47	100.64	-2.38	0.17
Other Goods and Services	<b>7.34</b>	101.57	102.89	103.18	1.58	0.28
<b>All Items</b>	<b>100.00</b>	<b>102.76</b>	<b>103.48</b>	<b>103.43</b>	<b>0.66</b>	<b>-0.05</b>

<sup>1</sup> including restaurant services and take-aways

**Chart 2. Annual inflation rates by main groups: May 2020**



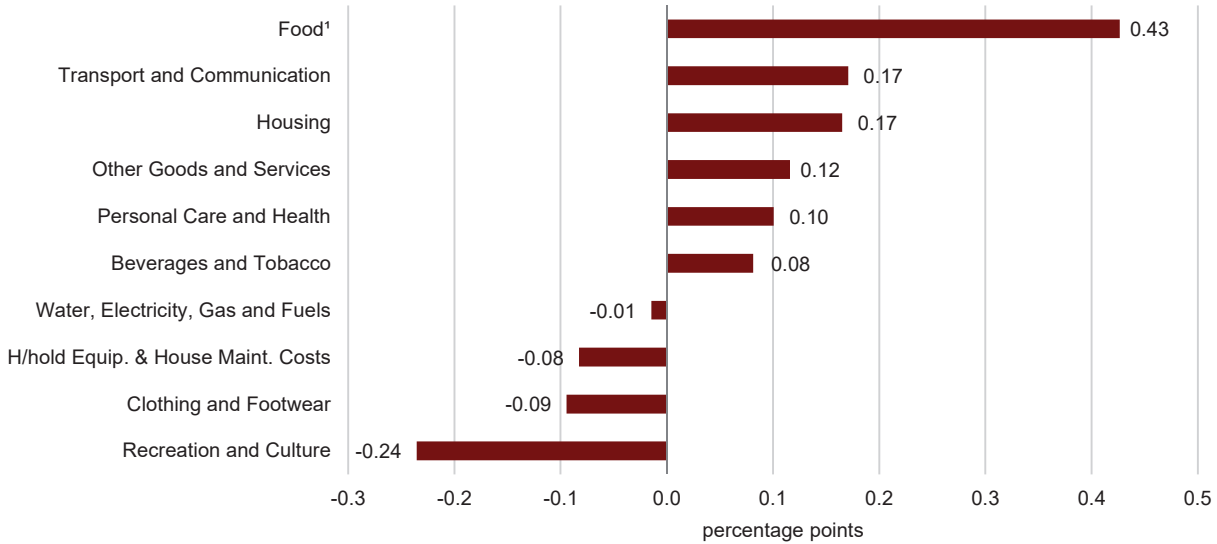
<sup>1</sup> including restaurant services and take-aways

Chart 3 depicts the impacts on the annual inflation rate by the 10 main groups. An impact is a measure showing the change in inflation as a result of the inclusion of an index. Such an impact takes into account both the weight and the annual rate of inflation by group.

In May 2020, the largest upward impact on annual inflation was registered in the Food Index (+0.43 percentage points), mainly due to higher prices of milk products. The second and third largest impacts were measured in the Transport and Communication Index (+0.17 percentage points) and the Housing Index (+0.17 percentage points), mainly on account of higher prices of fuels and house maintenance services respectively (Chart 3).

On the other hand, the largest downward impacts on annual inflation were registered in the Recreation and Culture Index (-0.24 percentage points), the Clothing and Footwear Index (-0.09 percentage points) and the Household Equipment and House Maintenance Costs Index (-0.08 percentage points), mainly reflecting lower prices of private school fees, garments and household appliances respectively (Chart 3).

**Chart 3. Contribution to the annual inflation rate by the 10 main groups: May 2020**



<sup>1</sup> including restaurant services and take-aways

Note: A percentage point is the arithmetic difference between two percentages.

**Table 2. Inflation rates by month and year**

Month	2018		2019		2020	
	Annual rate (%)	12-month moving average rate (%)	Annual rate (%)	12-month moving average rate (%)	Annual rate (%)	12-month moving average rate (%)
January	0.87	1.30	1.49	1.21	1.34	1.63
February	0.98	1.24	1.92	1.29	1.03	1.55
March	0.82	1.18	1.89	1.38	1.11	1.49
April	0.84	1.13	1.91	1.47	0.83	1.40
May	0.95	1.10	1.87	1.54	0.66	1.30
June	0.97	1.07	1.90	1.62		
July	1.00	1.04	1.68	1.68		
August	1.12	1.04	1.75	1.73		
September	1.64	1.08	1.41	1.71		
October	1.62	1.11	1.36	1.69		
November	1.59	1.13	1.36	1.67		
December	1.49	1.16	1.18	1.64		

#### 4. Aggregates

Table 3. Aggregates: May 2020

Group	Aggregates (respective % weight)	Annual rate (%)	Monthly rate (%)
<b>Food (21.49 %)</b>	Food excluding restaurant services and take-aways (15.60 %)	2.39	-1.31
	Restaurant services and take-aways (5.89 %)	0.95	0.00
<b>Beverages and Tobacco (5.56 %)</b>	Beverages (2.81 %)	1.65	-0.07
	Served beverages in restaurants and take-aways (1.16 %)	2.88	0.16
	Tobacco (1.59 %)	0.00	0.00
<b>Clothing and Footwear (6.62 %)</b>	Clothing (5.45 %)	-1.14	2.89
	Footwear (1.17 %)	-2.82	3.38
<b>Housing (7.90 %)</b>	Rent (1.08 %)	4.72	0.56
	Materials for house maintenance (3.70 %)	1.02	0.01
	Services for house maintenance (3.12 %)	2.40	0.00
<b>Water, Electricity, Gas and Fuels (3.31 %)</b>	Water and electricity (3.06 %)	0.00	0.00
	Gas and fuels (kerosene) (0.25 %)	-5.24	0.00
<b>Household Equipment and House Maintenance Costs (6.97 %)</b>	Furniture and furnishings (3.59 %)	-0.23	0.00
	Carpets and household textiles (0.76 %)	-4.15	-0.72
	Household appliances and utensils (2.62 %)	-1.80	-0.29
<b>Transport and Communication (22.10 %)</b>	Transport (16.57 %)	1.28	-0.35
	Communication (5.53 %)	-0.76	0.06
<b>Personal Care and Health (8.81 %)</b>	Medical services and medicinals (4.14 %)	1.94	0.43
	Personal care products and services (4.67 %)	0.44	0.09
<b>Recreation and Culture (9.90 %)</b>	Sports related equipment (0.54 %)	0.63	0.02
	Educational fees and related expenses (2.04 %)	-11.62	-0.06
	Other recreational articles and services (7.32 %)	-0.12	0.23
<b>Other Goods and Services (7.34 %)</b>	Jewellery, watches and other articles (1.13 %)	-0.25	-1.40
	Non-durable household goods (1.72 %)	1.64	0.67
	Veterinary services (including pet food) and domestic services (1.40 %)	1.53	0.70
	Insurances, financial services and other services (3.09 %)	2.19	0.47

The Housing Index registered an overall annual inflation rate of 2.09 per cent (Table 1), of which Rent registered an annual rate of 4.72 per cent, Materials for house maintenance registered an annual rate of 1.02 per cent, and Services for house maintenance registered an annual rate of 2.40 per cent (Table 3).

The Recreation and Culture Index registered an overall annual inflation rate of -2.38 per cent (Table 1), of which Sports related equipment registered an annual rate of 0.63 per cent, Educational fees and related expenses registered an annual rate of -11.62 per cent, and Other recreational articles and services registered an annual rate of -0.12 per cent (Table 3).

## 5. Background notes

### 5.1 Accessing data

Further information on HICP and RPI NSO publications may be accessed from:

[https://nso.gov.mt/en/News\\_Releases/View\\_by\\_Unit/Unit\\_A5/Price\\_Statistics/Pages/Harmonised-Index-of-Consumer-Prices.aspx](https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A5/Price_Statistics/Pages/Harmonised-Index-of-Consumer-Prices.aspx) and [https://nso.gov.mt/en/News\\_Releases/View\\_by\\_Unit/Unit\\_A5/Price\\_Statistics/Pages/Retail-Price-Index.aspx](https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A5/Price_Statistics/Pages/Retail-Price-Index.aspx) respectively.

Eurostat publications on HICP may be accessed from:

<http://ec.europa.eu/eurostat/news/news-releases>

### 5.2 Differences between RPI and HICP

Both indices are compiled using a large and representative selection of more than 440 different goods and services for which price movements are regularly monitored. Around 10,000 separate price quotations are used each month to compile the Index.

Although the methodology underlying RPI and HICP is similar, there are differences:

- i. The RPI captures private households only, whereas the HICP covers private households, institutional households (such as retirement homes) and foreign visitors to Malta.
- ii. The population base year of each index is different. The RPI is a fixed base index with weights periodically updated in line with the Household Budgetary Survey (HBS). On the other hand, the HICP is a chain-linked index with the weights reviewed on an annual basis. Unlike the RPI where the sample of goods and services changes every time the weights are updated, newly significant goods and services can be introduced in the HICP framework on an annual basis.
- iii. The coverage of the HICP is based on an international classification system, COICOP (Classification of Individual Consumption by Purpose), whereas the RPI has a different set of codes for each group of items.

Group	COICOP division	Weight (out of 1000)	RPI group	Weight (out of 100)
1	Food and Non-alcoholic Beverages	160.55	Food (including restaurant services and take-aways)	21.49
2	Alcoholic Beverages and Tobacco	36.49	Beverages and Tobacco	5.56
3	Clothing and Footwear	48.96	Clothing and Footwear	6.62
4	Housing, Water, Electricity, Gas and Other Fuels	85.44	Housing	7.90
5	Furniture, Household Equipment and Routine Household Maintenance	77.55	Water, Electricity, Gas and Fuels	3.31
6	Health	40.50	Household Equipment and House Maintenance Costs	6.97
7	Transport	136.84	Transport and Communication	22.10
8	Communication	32.87	Personal Care and Health	8.81
9	Recreation and Culture	102.90	Recreation and Culture (including education)	9.90
10	Education	22.62	Other Goods and Services	7.34
11	Restaurants and Hotels	178.25		
12	Miscellaneous Goods and Services	77.03		
	<b>Total</b>	<b>1,000.00</b>	<b>Total</b>	<b>100.00</b>

Apart from the disparities identified above, both the RPI and the HICP:

- have the same geographic coverage, implying that both indices refer to the whole country;
- utilise the same price collection methodologies; and
- utilise the same outlet sample (with some exceptions).

## 5.3 Further information

Price quotations for the new items introduced in the latest RPI index series started being collected in December 2016.

From January 2017 the RPI started being published with December 2016 as its base. All RPI indices pertaining to the years prior to 2017 were re-based to December 2016=100. This latest index series may be linked to the previous one by using a linking coefficient of 1.1199.

The basket of consumption items considered for the RPI is reviewed periodically, in line with the HBS during which information of household consumption is collected over a 12-month period in order to obtain an estimate of the average household expenditure. New products are included in the basket of items when achieving a sales volume of over one part per thousand of total consumer expenditure covered by the RPI. The information collected through the HBS exercise is then further supplemented by additional data sources to get to the final RPI weights.

The HICP is being published with 2015 as its base year. The previous series with reference 2005=100 has been discontinued. Commission Regulation (EU) No 2015/2010 provides the legal basis for updating the HICP reference year from 2005=100 to 2015=100. It should be noted that the re-basing operation was conducted after rounding all past indices to one decimal place. Therefore, there might be slight differences when comparing this series with past data due to rounding.

The HICP largely follows National Accounts concepts of what constitutes household consumption in determining the index scope, and mainly uses National Accounts data to weight the items in the basket.

The HICP weighting scheme is annually updated in accordance with Commission Regulation (EU) No 1114/2010. The treatment of seasonal items is in accordance with Commission Regulation (EC) No 330/2009.

Figures in Special Aggregates table may not add up mainly due to additivity and the change in weights and basket of items in January 2017.

Users are advised to consult the NSO before comparing the results of the RPI and the HICP.

More information on the metadata behind HICP and RPI News Releases may be accessed from:

Source and Methods:

[https://nso.gov.mt/en/nso/Sources\\_and\\_Methods/Unit\\_A5/Price\\_Statistics/Pages/Retail-Price-Index.aspx](https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A5/Price_Statistics/Pages/Retail-Price-Index.aspx)

Statistical Concepts: <https://nso.gov.mt/metadata/concepts.aspx>

Metadata (RPI): <https://nso.gov.mt/metadata/reports.aspx?id=10>

Metadata (HICP): <https://nso.gov.mt/metadata/reports.aspx?id=9>

Classifications: <https://nso.gov.mt/metadata/classificationdetails.aspx?id=COICOP%201999>

HICP and RPI Manual:

[https://nso.gov.mt/en/nso/Sources\\_and\\_Methods/Unit\\_A5/Price\\_Statistics/Documents/RPI\\_and\\_HICP\\_Manual.pdf](https://nso.gov.mt/en/nso/Sources_and_Methods/Unit_A5/Price_Statistics/Documents/RPI_and_HICP_Manual.pdf)

Statistical database: <https://nso.gov.mt/statdb/start>

References to this news release are to be cited appropriately.

## 5.4 Publication policy

A calendar for future news releases may be accessed from:

[https://nso.gov.mt/en/News\\_Releases/Release\\_Calendar/Pages/News-Release-Calendar.aspx](https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx)

## 6. Methodological notes

### 6.1 The Compilation of the Retail Price Index (RPI) in the Context of COVID-19

The methodological approach to the compilation of the RPI is consistent with the one adopted for the HICP. This was developed by Eurostat within the EU statistical community and in collaboration with the National Statistical Institutes, with the aim of counteracting the restrictions brought about by the COVID-19 pandemic and ensuring a harmonised approach across countries. These guidelines are summarised below:

## **Data collection**

Price collection takes place over at least one working week around the middle of the calendar month to which the index refers. During May 2020, whenever the restrictive measures in place inhibited field price collection, alternative sources and methods such as websites, email exchanges and telephone interviews, were undertaken. The overall objective was to maintain a comparative level of coverage and to retain consistency in the indices to the extent possible.

## **Weights and coverage**

The RPI weights are fixed and are updated in line with the HBS (refer to methodological note 5.2). These will not change as a result of the current situation. Moreover, the RPI shall still cover all groups, meaning that all sub-indices will be compiled.

## **Imputation**

In situations where: (i) the product was available on the market but a price reading could not be obtained or (ii) the product was not available on the market, the price was imputed. This also applies to products that exhibit seasonal patterns. The imputation method takes into consideration the seasonal pattern of the time series and should not distort it. Further details on imputation techniques are available from Eurostat's methodological note, to which we are providing the link below.

## **Flags for data quality**

Sub-indices considered to have a comparatively lower quality were flagged. Specifically, when the share of imputations for a sub-index exceeded 50 per cent, the sub-index is flagged as having low reliability, and information is given on the extent and method of imputation.

More details are available in the metadata, which can be found in the excel version of this news release: [https://nso.gov.mt/en/News\\_Releases/View\\_by\\_Unit/Unit\\_A5/Price\\_Statistics/Pages/Retail-Price-Index.aspx](https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A5/Price_Statistics/Pages/Retail-Price-Index.aspx)

Eurostat's methodological note: "Guidance on the Compilation of the HICP in the Context of the COVID-19 Crisis" is available at:

[https://ec.europa.eu/eurostat/documents/10186/10693286/HICP\\_guidance.pdf](https://ec.europa.eu/eurostat/documents/10186/10693286/HICP_guidance.pdf)

## **6.2 Reassessments / revisions**

Note that the RPI series is published with reference base December 2016 whereas the HICP series is published for base year 2015 in line with Eurostat base year revisions:

<https://ec.europa.eu/eurostat/documents/272892/272971/HICP+reference+year+2015%3D100/>

## **6.3 Time series**

Data from 1946 onwards is accessible from the following link:

[https://nso.gov.mt/en/nso/Selected\\_Indicators/Retail\\_Price\\_Index/Pages/Index-of-Inflation.aspx](https://nso.gov.mt/en/nso/Selected_Indicators/Retail_Price_Index/Pages/Index-of-Inflation.aspx)