

## RETAIL PRICE INDEX (RPI) - 2020

### NATIONAL REFERENCE METADATA IN SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

#### CONCEPT 1 – CONTACT

##### **Sub-Concept 1.1: Contact organisation**

National Statistics Office (NSO)

##### **Sub-Concept 1.2: Contact organisation unit**

Price Statistics Unit

##### **Sub-Concept 1.3: Contact name**

Ms. Denise Magrin and Ms. Kelsey Attard

##### **Sub-Concept 1.4: Contact person function**

Head of Unit; Statistician

##### **Sub-Concept 1.5: Contact mail address**

National Statistics Office (NSO),  
Lascaris, Valletta VLT 2000, Malta.

##### **Sub-Concept 1.6: Contact e-mail address**

[denise.magrin@gov.mt](mailto:denise.magrin@gov.mt); [kelsey.attard@gov.mt](mailto:kelsey.attard@gov.mt)

##### **Sub-Concept 1.7: Contact phone number**

+356 2599 7312; +35625997315

#### CONCEPT 2 – METADATA UPDATE

##### **Sub-Concept 2.1: Metadata last certified**

8<sup>th</sup> March 2021.

##### **Sub-Concept 2.2: Metadata last posted**

22<sup>nd</sup> March 2021.

##### **Sub-Concept 2.3: Metadata last update**

22<sup>nd</sup> March 2021.

### **CONCEPT 3 – STATISTICAL PRESENTATION**

#### **Sub-Concept 3.1: Data description**

The Retail Price Index (RPI) is the official measure of inflation in Malta. The Cost of Living Adjustment (COLA) mechanism, as well as rental and maintenance agreements are adjusted using the RPI. As a matter of fact, the RPI is a very important tool for policy making.

#### **Sub-Concept 3.2: Classification system**

A tailor-made classification similar to COICOP (Classification of Individual Consumption by Purpose adapted to the needs of Harmonised Indices of Consumer Prices) is used.

#### **Sub-Concept 3.3: Sector coverage**

The RPI covers the household sector, more precisely the goods and services that are acquired by households. It excludes institutional households and tourism expenditure from the picture.

#### **Sub-Concept 3.4: Statistical concepts and definitions**

The RPI measures price changes in a basket of goods and services consumed by the typical households. The RPI is a fixed-base index.

1. Monthly data: Indices (RPI: December 2016=100), Annual rates of change, Monthly rates of change, 12-month average rate of change.
2. Annual data: Index of inflation and rate of change.

#### **Sub-Concept 3.5: Statistical unit**

The basic units of statistical observation are prices for consumer products. Each published index or rate of change refers to the 'Final monetary consumption expenditure' of the whole Maltese household sector.

#### **Sub-Concept 3.6: Statistical population**

The RPI weights are primarily based on the Household Budgetary Survey (HBS), which is a national sample-based inquiry to gauge changing expenditure patterns by residential households. The most recent HBS was carried out by the NSO between March 2015 and April 2016.

#### **Sub-Concept 3.7: Reference area**

The RPI reflects the entire area of Malta and Gozo, and price collection is carried out in numerous outlets across localities.

#### **Sub-Concept 3.8: Time coverage**

The RPI index of inflation is available from 1946 onwards.

### **Sub-Concept 3.9: Base period**

The index reference period is December 2016=100.

### **CONCEPT 4 – UNIT OF MEASURE**

The following units are used:

- Index (which is technically unit less). This is defined as the ratio of the price of the basket in a given year to its price in the base year expressed in percentage form. However, the RPI can be thought of as the amount the average consumer would have to spend in a given year to buy the same basic goods and services that would cost 100 monetary units in the base period;
- Percentage change on the same period of the previous year (annual rate);
- Percentage change on the previous period (monthly rate);
- Percentage share of the total (weights).

### **CONCEPT 5 – REFERENCE PERIOD**

RPI is a monthly statistic. The respective timings of individual products (goods and services) refer to days that are spread at least across one working week at, or around, the middle of the month. In case of volatile prices within a month, more than one week must be covered. Some services require that price collection is carried out in advance, in which case the price collection schedule should reflect consumer behaviour.

### **CONCEPT 6 – INSTITUTIONAL MANDATE**

#### **Sub-Concept 6.1: Legal acts and other agreements**

The Malta Statistics Authority (MSA) Act empowers the NSO to collect, compile, extract and release official statistics related to demographic, social, environment, economic and general activities and conditions of Malta.

The RPI is compiled in accordance with Subsidiary Legislation 452.65 (Wage Increase National Standard Order) laying down the foundations of the Cost of Living Adjustment mechanism.

#### **Sub-Concept 6.2: Data sharing**

Data sharing matters are governed by the [Malta Statistics Authority Act XXIV of 2000](#) .

In particular, the 'Retail Price Index' news release is released and sheds light over the 10 main categories of the RPI. Everyone has access to the same information simultaneously. All news releases are regulated by an internal Dissemination Policy.

The RPI news releases can be accessed through:

[http://nso.gov.mt/en/News\\_Releases/View\\_by\\_Unit/Unit\\_A5/Price\\_Statistics/Pages/Retail-Price-Index.aspx](http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A5/Price_Statistics/Pages/Retail-Price-Index.aspx).

## **CONCEPT 7 – CONFIDENTIALITY**

### **Sub-Concept 7.1: Confidentiality – Policy**

#### At National level:

The NSO requests information for the compilation of official statistics according to the articles of the MSA Act – Cap. 422 and the Data Protection Act – Cap. 586 of the Laws of Malta implementing the General Data Protection Regulations (GDPR).

Article 40 of the MSA Act stipulates the restrictions on the use of information while Article 41 stipulates the prohibition of disclosure of information. Furthermore, Section IX of the Act (Offences and Penalties) lays down the measures to be taken in case of unlawful exercise of any officer of statistics regarding confidentiality of data.

Since its inception, the NSO has always assured that all data collected remains confidential and that it is used for statistical purposes only according to the articles and derogations stipulated in the laws quoted above. The Office is obliged to protect the identification of data providers and refrain from divulging any data to third parties that might lead to the identification of persons or entities.

During 2009, the NSO has set up a Statistical Disclosure Committee to ensure that statistical confidentiality is observed, especially when requests for microdata are received.

Upon employment, all NSO employees are informed of the rules and duties pertaining to confidential information and its treatment. In line with stipulations of the MSA Act, before commencing work, every employee is required to take an oath of secrecy whose text is included in the same Act.

An internal policy on anonymisation and pseudo-anonymisation is in place to ascertain that adequate methods are used for the protection of data which the office collects and shares with the public in its capacity as the National Statistics Office. The policy is meant to safeguard confidentiality of both personal and business data entrusted to the NSO. The document provides guidance for all NSO employees who process data on a daily basis as to how anonymisation and pseudo-anonymisation methods should be applied. The policy applies to all confidential, restricted and internal information, regardless of form (paper or electronic documents, applications and databases) that is received, processed, stored and disseminated by the NSO.

#### At European level:

[Regulation \(EC\) No 223/2009](#) on European statistics (recital 24 and Article 20(4) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

### **Sub-Concept 7.2: Confidentiality – Data Treatment**

All data received are treated as strictly confidential and not shared with third parties. RPI data are only represented in index or percentage form (rates) and are therefore not treated for confidentiality. Details about data suppliers are never disclosed.

## **CONCEPT 8 – RELEASE POLICY**

### **Sub-Concept 8.1: Release Calendar**

An advance release calendar is maintained by the NSO and published on the NSO website. The calendar projects three months of news releases (including the current and two subsequent months).

### **Sub-Concept 8.2: Release Calendar access**

[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)

### **Sub-Concept 8.3: User access**

An internal policy on dissemination is in place to govern the dissemination of official statistics in an impartial, independent and timely manner, making them available simultaneously to all users.

The NSO's primary channel for the dissemination of official statistics is the NSO website. Tailored requests for statistical information may also be submitted through the NSO website.

National statistical releases are issued according to the release calendar and are made available to all users simultaneously. All releases are posted on the NSO website.

## **CONCEPT 9 – FREQUENCY OF DISSEMINATION**

The RPI is produced on a monthly basis.

## **CONCEPT 10 – ACCESSIBILITY AND CLARITY**

### **Sub-Concept 10.1: News release**

The 'Retail Price Index' news release sheds light over the 10 main categories of the RPI. Everyone has access to the same information simultaneously. All news releases are regulated by an internal Dissemination Policy.

The RPI news releases can be accessed through:

[http://nso.gov.mt/en/News\\_Releases/View\\_by\\_Unit/Unit\\_A5/Price\\_Statistics/Pages/Retail-Price-Index.aspx](http://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_A5/Price_Statistics/Pages/Retail-Price-Index.aspx).

### **Sub-Concept 10.2: Publications**

The RPI features in the yearly publication 'Malta in Figures'. More specifically it sheds light on the indices by RPI category, inflation rates and the twelve-month moving average rates for the past years. It was also presented in the 'Malta in Figures 2019' publication.

### **Sub-Concept 10.3: Online Database**

A more detailed breakdown of the RPI can be accessed on StatDB, free-of-charge on <https://statdb.nso.gov.mt/start>.

#### **Sub-Concept 10.4: Micro-data access**

Microdata are not disseminated. Data are disseminated in index form. However, administrative prices or state-owned prices may be disseminated upon request.

#### **Sub-Concept 10.5: Other**

Formal requests are received through the NSO's website:

(<http://nso.gov.mt/en/Services/Pages/Request-for-Information.aspx>)

In addition, requests are received through phone calls or emails. Particularly users (general public) seek assistance on how to calculate: adjustment in rents or maintenance payments.

#### **Sub-Concept 10.6: Documentation on methodology**

The document 'The RPI and the HICP Manual' explaining in detail the methodologies used for the monthly working of the Retail Price Index and the Harmonised Index of Consumer Prices (HICP) is available on the NSO's website. The document, which is primarily intended for use by economic and social analysts and other researchers, can be accessed through: [RPI Sources & methods](#). Work processes and procedures for the compilation of the RPI are documented in a standardised reporting template and aligned to the GSBPM model. The model covers all phases of the statistical production process, from the initial stages of identifying what statistics are needed and the scope of the survey, to the final stages of dissemination and evaluation. GSBPM is only available internally and may be accessed by all NSO employees.

#### **Sub-Concept 10.6.1: Metadata completeness rate**

Information about all required metadata concepts (and sub-concepts thereof) are provided.

#### **Sub-Concept 10.7: Quality Documentation**

Prior to its release, the RPI is provided to the members of the RPI Advisory Board for their review. The RPI Board, which meets monthly, is composed of the following partners: The Director of Statistics (ex-officio), two members appointed by the government, two members appointed by trade unions and two members appointed by business organisations. The RPI Advisory Board maintains the RPI in strict confidence and the index is embargoed until the 11 am release.

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

## **CONCEPT 11 – QUALITY MANAGEMENT**

### **Sub-Concept 11.1: Quality Assurance**

Specialised personnel check all prices every month. Any abnormal price movement is identified and discussed with the price collector reporting that price change. If a plausible explanation for that price change is provided, the price is accepted. Otherwise, the price collector is asked to check the price again. One of the reports available to identify grey areas is a sheet pinpointing those items which have a relatively high annual or monthly rate. Moreover, another report that highlights the major changes taking place at the 4-digit COICOP is available. This facilitates validation by qualified personnel.

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

Every five to seven years, the NSO participates in a Peer Review exercise through which the compliance of its operations with principles of the ESS CoP is assessed by an expert team. Peer Reviews are indeed part of the European Statistical System (ESS) strategy to implement the ESS CoP.

### **Sub-Concept 11.2: Quality Assessment**

The RPI advisory board, made up by representatives of the social partners, consider the RPI to be of a good standard. The commitment is to give a true picture of the prevailing market forces in the country. A detailed comparison and in-depth analysis of the RPI and the HICP is included in the [RPI and HICP Manual](#).

## **CONCEPT 12 – RELEVANCE**

### **Sub-Concept 12.1: User needs**

The key users of the RPI are:

- Central Bank of Malta (CBM);
- Economic Policy Division (EPD) within the Ministry for Finance (MFIN);
- The public in general for queries related to rents and maintenance agreements.

### **Sub-Concept 12.2: User satisfaction**

The last User Satisfaction Survey was held in 2014 with the aim to collect information about key users' satisfaction with statistical output.

The NSO keeps record of the number of News Releases and publications disseminated on its website; the users to whom statistical products are provided; as well as the number of requests that are processed every year.

News Releases and tailor-made statistical outputs were assessed on account of their quality, timeliness, and on their ability to meet users' needs.

### **Sub-Concept 12.3: Data Completeness**

All required statistics are produced in accordance to the respective regulations and guidelines.

## **CONCEPT 13 – ACCURACY AND RELIABILITY**

### **Sub-Concept 13.1: Overall accuracy**

The overall accuracy of the RPI is deemed to be high especially in terms of the methodological soundness of price and weight sources. The data sources for the weights are Household Budgetary Survey data, National Accounts data and Trade data, whereas most prices are usually collected physically from the local retailers and service providers. However, there are a few instances whereby prices are collected via mail, email, telephone and from the internet. The type of survey and price collection methods employed, guarantee good coverage and timeliness. The sample of outlets is made up of all those organisations considered to be representative of the markets in which they operate. All average prices (per item) are checked on a monthly basis and compared to the value registered in the previous month and the value registered in the same month of the previous year. All drastic changes are identified, and unless they are justified by the price collector, they are investigated.

### **Sub-Concept 13.2: Sampling errors**

Not applicable.

### **Sub-Concept 13.3: Non-sampling error**

Errors in data entry are the one main type of non-sampling errors. Besides, the weighting scheme is normally based on different assumptions, and this might give rise to non-sampling errors.

#### **Sub-Concept 13.3.1: Coverage error**

Not applicable.

##### **Sub-Concept 13.3.1.1: Over Coverage**

Not applicable.

##### **Sub-Concept 13.3.1.2: Common Units Proportion**

Not applicable.

#### **Sub-Concept 13.3.2: Measurement error**

No test procedures are in place to test the overall accuracy. Data are manually checked and analysed in detail on a monthly basis. The amount of prices that need to be corrected due to data entry error is almost negligible.



### **Sub-Concept 13.3.3: Non-response error**

Not applicable.

### **Sub-Concept 13.3.3.1: Unit non-response**

Not applicable.

### **Sub-Concept 13.3.3.2: Item non-response**

Not applicable.

### **Sub-Concept 13.3.4: Processing error**

The amount of prices that need to be corrected due to data-entry and imputation errors is almost negligible.

### **Sub-Concept 13.3.5: Model assumption error**

Not applicable.

## **CONCEPT 14 – TIMELINESS AND PUNCTUALITY**

### **Sub-Concept 14.1: Timeliness**

Usually the RPI is published a few days after issuing the HICP news release.

The HICP in Malta is normally published on the same day of Eurostat publication of the HICP, usually between 15 and 18 days after the end of the reference month. However, there are instances when the publication dates do not coincide on the exact same day.

### **Sub-Concept 14.2: Punctuality**

Pre-announced schedules are usually observed. If the date and time of a release change; it is announced on the NSO website. Considering News Releases related to Retail Price Index, disseminated between June 2012 and June 2017, there was just one instance whereby it was issued after 11.10am.

## **CONCEPT 15 – COHERENCE AND COMPARABILITY**

### **Sub-Concept 15.1: Comparability – Geographical**

Intra-country comparability is not an issue in the Maltese context as all localities in Malta and Gozo are directly comparable due to the country's small size. Inter-country comparability is not relevant since the RPI is a measure of inflation tailor-made for the needs of Maltese households.

### **Sub-Concept 15.2: Comparability – Over Time**

The RPI is fully comparable over time, especially since it is a fixed-base index. Any improvements are implemented as deemed necessary and constitute minimal impacts on the overall RPI.

### **Sub-Concept 15.3: Coherence – Cross Domain**

The RPI and HICP are two separate measures of inflation. The main difference between the two indices is that the HICP considers all money spent in Malta and Gozo (domestic concept) irrespective of whether the purchaser is a resident or non-resident, whereas the national CPI considers all money spent by the Maltese in Malta and Gozo. The main characteristics that illustrate the differences between the two indices are:

#### RPI

- 10 Groups
- The list of goods and services is based primarily on the Household Budgetary Survey
- Fixed Base Index
- Weights add up to 100
- Accommodation services and retirement home services are NOT included
- Guidelines specified internally
- Monitored by RPI Monitoring Board

#### HICP

- 12 Divisions
- Newly Significant Goods and Services introduced every year
- Chain Linked Index
- Weights add up to 1,000
- Accommodation Services and retirement home services are included
- Regulated by European Commission
- Monitored by Eurostat

### **Sub-Concept 15.3.1: Coherence – Sub-Annual and Annual statistics**

All figures are checked for internal consistency. As a result, coherence between sub-annual and annual estimates is safeguarded.

### **Sub-Concept 15.3.2: Coherence – National Accounts**

Data derived from the Household Budgetary Survey are corroborated with National Accounts consumption expenditures for underreporting of certain items. HBS data are used in the compilation of the weighting structure.

### **Sub-Concept 15.4: Coherence – Internal**

The RPI is internally coherent. Higher level aggregations are derived from detailed indices according to well-defined procedures.

## **CONCEPT 16 – COST AND BURDEN**

Not available.

## **CONCEPT 17 – DATA REVISION**

### **Sub-Concept 17.1: Data revision – Policy**

The published RPI data may be revised for any mistakes, new or improved information, and changes recommended by the RPI advisory board.

A revision calendar does not exist.

At the NSO, there is currently no internal policy governing revisions that occur for all statistics produced. Nonetheless, a revisions policy is being drafted to safeguard a coordinated revisions system across statistical domains.

This policy will take account of the need and causes for revisions; time and frequency of revisions; data and other statistical products affected by such revisions; and length of periods revised.

### **Sub-Concept 17.2: Data revision – Practice and Data Revision**

The index is revised whenever necessary. Over the last five years there have been no revisions.

## **CONCEPT 18 – STATISTICAL PROCESSING**

### **Sub-Concept 18.1: Source data**

Prices are collected from multiple data sources which include surveys, administrative data and various other sources.

The sample of outlets for price collection is extracted following consultation with the Business Registers Unit. This is meant to ensure that a representative sample is extracted among outlets in Gozo, Valletta, South of Malta, North of Malta and Centre of Malta. The Business Register is a primary source to identify where consumers do their shopping.

Retail Outlets, Self-Employed, Market Stalls (Hawkers) and internet websites are included in the sample. Petrol stations are not sampled as these are not very representative for products other than fuel. Similarly, mail orders are not covered.

In market stalls, prices are collected for fish, fruit and vegetables (prices for these products are not only collected from market stalls).

Transactions related to gadgets, package tours and air transport services are assumed to be carried out over the internet. The market share of these and other outlet types are not known.

The office keeps abreast with the developments taking place in the market by holding regular meetings with major stakeholders and following what the main economic pundits of the country are claiming.

Prices for school transport, child-minding services, dental services, general practitioners, consultants and veterinary services are collected via paper questionnaires.

### **Sub-Concept 18.2: Frequency of data collection**

Prices are collected over more than five working days towards the middle of the calendar month to which the index pertains. However, in the case of fresh vegetables, fresh fruit and fresh fish, price collection takes place over a period of more than one working week. Air fares are monitored almost daily.

### **Sub-Concept 18.3: Data Collection**

#### Outlet selection:

Data are collected from the most representative retail outlets of the country. The turnover figures of outlets are good proxies of the importance of the shop in the local scenario. Price collectors are also consulted when selecting a replacement outlet especially when the turnover figure of a new establishment is not available. It is normally quite easy to identify the most important shops across Malta and Gozo, even without the relevant data available, due to the small size of Malta. Nevertheless, it should be noted that no weighting frame is used to distinguish between outlets.

#### Techniques of product selection and specification:

Three criteria are used in the product selection process:

- Product must be representative (sought after /in demand);
- Product must be suitable for regular pricing; and
- Product is likely to be available in the long run.

Once products have been chosen, price collectors are required to price the same product every month. If a product is discontinued, the price of a similar (homogenous) product is selected. To facilitate the replacement process, a set of specifications are defined for each product being priced. The most important specifications are the unit and the brand of the product. However, the less homogenous a product group is, the tighter are the specifications.

### **Sub-Concept 18.4: Data Validation**

Data must pass two consistency tests before publishing. Any drastic changes in the index observed from month to month are investigated, and if an error is detected, an explanation is provided. Moreover, the series of some seasonal items are expected to follow the same pattern over time. When this is not the case, these are investigated accordingly.

### **Sub-Concept 18.5: Data Compilation**

#### Weights

The sources of the RPI weights are Household Budgetary Survey data, National Accounts data and Trade data.

#### Computation of the lowest-level indices

The Arithmetic Means are used in the compilation of the elementary aggregates.

#### Treatment of missing items and replacements

Missing prices are carried forward for three consecutive months. During these three months interviewers collect the price of a similar product. The new price together with the specifications of this new product is stored in the system but it is not used for the compilation of the index. If the problem persists in the third month, the new replacement product is introduced. Sometimes this also requires quality adjustment.

#### Treatment of price reductions

Sales prices and reduced prices are included in the index as long as they are universally available to all consumers.

#### Treatment of seasonal items

The list of Seasonal Items includes: Fresh Vegetables, Fresh Fruit, Fresh Fish, Clothing and Footwear.

- Class-confined seasonal weights are applied every month to Fresh Vegetables, Fresh Fruits and Fresh Fish. When a product pertaining to these classes is out-of-season, its weight is assigned to zero.
- Strict annual weights are used in the compilation of the Clothing and Footwear indices. When a product pertaining to these classes is out-of-season, the price is estimated using counter-seasonal estimation.

### **Sub-Concept 18.5.1: Imputation**

Not available.

### **Sub-Concept 18.6: Adjustment**

#### Adjustment for quality differences

If the price collector fails to price a product for three consecutive months, a new replacement (similar) product is introduced using the bridged overlap method. The method essentially boils down to estimating the base price of the replacement product. The new base price is calculated based on the price movements exhibited by similar products pertaining to the same locality of outlet in which the change occurred or across all localities in Malta and Gozo. The direct comparison method is used in the case of clothing and footwear or whenever the products being compared are deemed to be homogenous.

The hedonic method of quality adjustment, which removes any price differential attributed to a change in quality, is used in the case of cars, computers, cameras and motorcycles.

### **Sub-Concept 18.6.1: Seasonal Adjustment**

The list of Seasonal Items includes: Fresh Vegetables, Fresh Fruit, Fresh Fish, Clothing and Footwear.

- Class-confined seasonal weights are applied every month to Fresh Vegetables, Fresh Fruits and Fresh Fish. When a product pertaining to these classes is out of-season, its weight is assigned to zero.
- Strict annual weights are used in the compilation of the Clothing and Footwear indices. When a product pertaining to these classes is out-of-season, the price is estimated using counter-seasonal estimation.

### **CONCEPT 19 – COMMENT**

No further comments.