

Export Price Index (EPI)

Methodology for the computation of the EPI

1. Definition

The Export Price index (EPI) provides an overall measure of pure price changes in Mauritian Rupees of goods exported to other countries. This index is constructed from the export prices of a "constant" well-defined representative basket of commodities selected from merchandised trade data reported during the the base year.

The first series of EPI was calculated with year 1993 as base. It was subsequently rebased to year 1997, 2003, 2007, 2013, 2018 and the present series has as base period year 2023.

The concepts and definitions of the EPI largely follow the guidelines provided in the “IMF Export and Import Price Index Manual, Theory and Practice, 2009”.

2. Scope

The 2023 EPI index is computed according to the United Nations Standard International Trade Classification (SITC Rev 4). The EPI covers four of the 10 sections of the SITC, namely “Food and live animals”, “Chemicals and related products”, “Manufactured goods classified chiefly by material” and “Miscellaneous manufactured articles”. Exports of goods falling under these sections covered 90% of total exports in the base year. Separate sub-indices are produced for each SITC section and division.

The EPI covers total exports (domestic exports and re-exports). The most important commodities in the 2023 EPI are “Articles of apparel and clothing accessories”, “Fish and fish preparations”, “Sugar” and “Textile yarn, fabrics, made-up articles, n.e.s., and related products”.

However, some commodities have been excluded in the computation of the weights because of their heterogeneity and the inherent difficulties in pricing them to a constant quality. Those were precious stones, jewellery, recorded media and free publications, and all products classified within the Sections 1, 3, 7 and 9 of the SITC; together they accounted for around 16% of total exports in 2023. In addition, SITC sections 2 and 4 were not represented due to low exports value.

The index thus covers about 84% of the value of merchandise exported during 2023. Commodities directly represented (i.e, price movements followed) constitute 62% of the total value of exports. For the 22% not directly represented, their prices are considered to move similarly to those represented directly.

3. Selection of products to be priced and outlets

Around 76 exporters (outlets) have been selected based on trade declarations submitted to the Customs Department in 2023, for pricing of the commodities through quarterly price surveys. These exporters are the major ones trading on a regular basis.

A total of around 153 products, representing the 44 commodities directly represented in the index, were selected for pricing on the basis of their share in total exports, regularity of trade of exports and also their importance in the trader's exports. There must also be a sustained demand for the product variety.

Specifications of products to be priced (physical and qualitative) were established in collaboration with the selected exporters to ensure that same items are priced at each price survey. Specifications include: pricing basis, contract basis, country of destination, unit of measurement, mode of transport, terms of payment, currency and any other conditions like quality and quantity of the product, that have a bearing on the price.

4. Weighting scheme

Weights derived for each section, division, group and commodity, were based on their export values in 2023. Products selected for pricing purposes represent all commodities that fall within that weight group.

Changes in the weights from 2018 to 2023

The changes in weights at section level are shown in the table below.

Section	Description	2018	2023
	All sections	10,000	10,000
0	Food and live animals	4,055	5,015
5	Chemicals and related products, n.e.s.	554	258
6	Manufactured goods classified chiefly by material	866	1,046
8	Miscellaneous manufactured articles	4,525	3,681

It is noted that the weight for:

- i. "Food and live animals" increased by 24% in 2023, mainly due to increases in the importance of "Sugar", "Live animals" and "Feeding stuff for animals".
- ii. "Chemicals and related products, n.e.s." decreased by 53% in 2023, mainly due to decreases in the importance of "Medicinal and pharmaceutical products" and "Organic chemicals".

- iii. “Manufactured goods classified chiefly by material” increased by 21% in 2023, mainly because of the share of exports of “Textile yarn, fabrics, made-up articles, n.e.s., and related products” and;
- iv. “Miscellaneous manufactured articles” decreased by 19% in 2023, mainly due to a decrease in the importance of “Articles of apparel and clothing accessories”.

5. Base period prices

Monthly prices were collected from selected exporters for each month of 2023 and yearly average prices, known as base year prices, were calculated for each commodity. Monthly indices were calculated and averaged to work out quarterly indices for the base year.

6. Price collection

A preliminary survey of the selected exporters was conducted in mid-year of 2025 to gather information on products (specific brand and type) relating to the selected commodities and monthly prices for 2023 onwards were collected. Hereafter, the selected exporters are visited every quarter but prices are collected for each month of the quarter for the computation of monthly and quarterly indices. The collected prices are reported on a free on board (F.O.B.) basis and are mostly contract prices.

7. Uses of the EPI

The Export Price Index is an important economic indicator which is used, inter alia, to:

- i. measure changes in prices of exports
- ii. analyse the effect of export price changes on the various sectors of the economy
- iii. calculate changes in the volume of exports
- iv. calculate the terms of trade (that is the ratio of export prices to import prices)
- v. analyse the effect of exchange rates on export prices.

It also serves as a basis to assess the competitiveness of Mauritian products in relation to price trends of common products of other countries with which Mauritius competes for markets.

8. Calculation of the EPI

The lowest level (SITC 7 digit) indices are calculated as a geometric average of the price relatives of the basic observations (products). Laspeyres formula, based on the weighted average of price relatives, is used to calculate higher level indices. The mathematical form of the formula is shown below:

$$I_{ot} = \frac{\sum w_i \times \frac{P_{it}}{P_{io}} \times 100}{\sum w_i}$$

Where I_{ot} is the index for period t compared to base period 0

w_i is the weight of the i^{th} element

P_{io} is the base price of the i^{th} element

P_{it} is the price of the i^{th} element in period t

$\frac{P_{it}}{P_{io}}$ is the price relative of the i^{th} element
in period t relative to base period 0

Σ means summation over all selected elements

9. Missing Prices

In case of missing prices for a product, imputation is carried out as recommended in the “IMF Export and Import Price Index Manual, Theory and Practice, 2009”.

Import Price Index (IPI)

Methodology for the computation of the IPI

1. Definition

The Import Price Index (IPI) provides an overall measure of pure price changes in Mauritian Rupees of goods imported into the country. This index is constructed from import prices of a "constant" well-defined representative basket of commodities selected from imports data in the base year.

The concepts and definitions of the IPI largely follow the guidelines provided in the "IMF Export and Import Price Index Manual, Theory and Practice, 2009".

The first series of IPI were calculated with year 2002 as base and reference prices for the year 2003. It was subsequently rebased to years 2007, 2013, 2018 and the present series has as base period year 2023.

2. Scope

The 2023 IPI is computed according to the United Nations Standard International Trade Classification (SITC Rev 4). The IPI covers nine out of the 10 Standard International Trade Classification sections. The only section not covered is "Commodities and transactions not classified elsewhere", because of the heterogeneity of the products and the inherent difficulties in pricing items of a constant quality.

For the computation of the 2023 weights, some commodities accounting for around 10% of total imports in 2023 were excluded because of their heterogeneity and the inherent difficulties in pricing them to a constant quality. Those were: precious stones, jewellery, cellular telephones, recorded media and free publications, aircraft, helicopters and marine vessels, certain machine parts, textile wastes and Section 9 of the SITC described as "Commodities and transactions not classified elsewhere".

Thus, the index covers about 90% of the value of merchandise imported in 2023. Commodities directly represented (price movements followed) constitute around 57% of the total value of imports. For the 33% not directly represented, their prices are considered to move similarly to those represented directly.

3. Selection of products to be priced and outlets

Some 292 importers (outlets) have been selected based on trade declarations submitted to the Customs Department in 2023 for the pricing of the commodities. These importers are the major ones importing the selected commodities on a regular basis.

A total of around 390 products, representing the 175 commodities directly represented, were selected for pricing on the basis of regularity of imports and also their importance in the trader's imports. There must also be a sustained demand for the product variety.

Specifications of products to be priced (physical and qualitative) were established in collaboration with the selected importers to ensure that same items are priced every quarter. Specifications include: pricing basis, contract basis, country of origin, unit of measurement, mode of transport, terms of payment, currency and any other conditions like quality and quantity of the product, that have a bearing on the price.

4. Weighting scheme

Weights derived for each section, division, group and commodity, were based on their import values in 2023. Products selected for pricing purposes represent all commodities that fall within that weight group.

Changes in the weights from 2018 to 2023

The changes in weights at section level are shown in the table below.

Section	Description	2018	2023
	All sections	10,000	10,000
0	Food and live animals	2,169	2,336
1	Beverages and tobacco	333	341
2	Crude materials, inedible, except fuels	262	170
3	Minerals fuels, lubricants and related materials	3,766	3,356
4	Animal and vegetable oils, fats and waxes	92	97
5	Chemicals and related products, n.e.s.	717	785
6	Manufactured goods classified chiefly by material	852	785
7	Machinery and transport equipment	1,515	1,659
8	Miscellaneous manufactured articles	294	471

It is to be noted that the weight for:

- i. “Food and live animals” increased by 8% in 2023, mainly due to increases in the importance of “Sugar”, “Cereals and cereal preparations”, “Feeding stuff for animals” and, “Vegetables and fruits”.
- ii. “Mineral fuels, lubricants and related materials” decreased by 11% in 2023, mainly due to the lower import value of “Petroleum, petroleum products and related materials” and, “Gas, natural and manufactured”.
- iii. “Chemicals and related products, n.e.s.” increased by 9%, depending on the share of imports of “Medicinal and pharmaceutical products” and, “Chemical materials and products, n.e.s.”.

- iv. “Manufactured goods classified chiefly by material” decreased by 8% in 2023, mainly due to lower share of imports of “Textile yarn, fabrics, made-up articles, n.e.s”, “Iron and steel” and “Non-ferrous metals”.
- v. “Machinery and transport equipment” increased by 10% in 2023, mainly due to higher share of imports of “Road vehicles” and;
- vi. “Miscellaneous manufactured articles” increased by 60% in 2023, mainly due to a higher share of imports of “Articles of apparel and clothing accessories”, “Professional, scientific and controlling instruments and apparatus, n.e.s.”, “Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings”, “Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.” and, “Miscellaneous manufactured articles, n.e.s.”.

5. Base period prices

Quarterly prices were collected from selected importers for each quarter of 2023 and yearly average prices, known as base year prices, were calculated for each commodity thus, quarterly indices were worked out for the base year.

6. Price collection

A preliminary survey of the selected importers was conducted in mid-year of 2025 to gather information on the products (specific brand and type) relating to the selected commodities and to collect prices for the four quarters of 2023. Hereafter, the selected importers are visited every quarter to collect the required prices for updating the index. Given that most imports occur at intervals longer than a month, prices collected refer to the last consignment of the quarter. The collected prices are reported on a cost, insurance, freight (C.I.F) basis and are mostly contract prices.

7. Petroleum products and rice

Petroleum products, namely gasoline, gas oil, aviation fuel, fuel oil, LPG are imported more than once during a quarter. For this exceptional case, all prices available during the quarter are collected and average prices for that quarter are computed for each petroleum product. The same pricing system is applicable for rice imported by the State Trading Corporation.

8. Uses of the Import Price Index

The Import Price Index is an important economic indicator, which is used, inter alia, to:

- (i) measure changes in prices of imports
- (ii) analyse the effect of import price changes on the various sectors of the economy
- (iii) calculate changes in the volume of imports
- (iv) calculate the terms of trade (that is the ratio of export prices to import prices)
- (v) analyse the effect of exchange rates on import prices.

9. Calculation of the IPI

The lowest level indices (SITC 7 digit) are determined as a geometric average of the price relatives of the basic observations (products). Laspeyres formula, based on the weighted average of price relatives, is used to calculate higher level indices.

The mathematical form of the formula is shown below:

$$I_{ot} = \frac{\sum w_i \times \frac{P_{it}}{P_{io}} \times 100}{\sum w_i}$$

Where I_{ot} is the index for period t compared to base period 0

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10. Missing Prices

In case of missing prices for a product, imputation is carried out as recommended in the “IMF Export and Import Price Index Manual, Theory and Practice, 2009”.

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