

Quarterly Export Price Index (EPI)
1st Quarter 2004
(Reference year: 2003=100)

1. Introduction

The Export Price Index (EPI) provides an overall measure of pure price changes (in Mauritian rupees) of domestically produced goods exported to other countries. The base and reference years have been revised as follows: weights have been derived from domestic exports for 2002 while the year 2003 has been used as reference year (i.e. 2003=100). A technical note on the construction of the EPI is annexed.

This issue of the Economic and Social Indicators presents quarterly Export Price Indices for the first quarter of 2004 and for the year 2003 based on the new revision. Also included is a summary table (Table 3) showing the previous series for the period 1998 to 2003 and the new EPI for the first quarter 2004 with 2003 as the reference year.

Table 1 presents quarterly indices by Standard International Trade Classification (SITC Rev 3). Percentage changes for each quarter compared to previous quarters are shown in Table 2.

2. Structure of the EPI

The EPI covers five sections of the SITC, namely “Food and live animals”, “Crude materials, inedible, except fuels”, “Chemicals and related products”, “Manufactured goods classified chiefly by material” and “Miscellaneous manufactured articles”. Exports of goods falling under these sections covered 90% of domestic exports in reference year 2003. Distribution of weights for the different sections, groups of commodities and items are given in Table 1. In addition to the overall index, separate sub-indices are also given for different product categories.

3. Quarterly Changes (1st quarter 2004)

During the first quarter of 2004, the EPI decreased by 0.7 point and reached 100.5, from 101.2 in the fourth quarter of 2003. Decreases were, in fact, registered in export prices of goods falling under all sections, except “Chemicals and related products” whose index went up by 16.2%. The index for “Miscellaneous manufactured articles”, which carries about 67% of the total weight, fell by 0.3% and that of “Food and live animals”, with 29% of the total weight, fell by 1.1%.

Compared to price levels in the corresponding quarter of 2003, the index showed an overall increase of 2.1%. This increase can be explained mainly by the fact that prices of "Miscellaneous manufactured articles" went up by 3.3% and those of "Food and live animals" by 0.3%.

3.1 Sub-indices by section and commodity

Food and live animals

During the first quarter of 2004, the sub-index for "Food and live animals", which carries 29% of the total weight, moved from 100.6 to 99.5, representing a decrease of 1.1%. This can be attributed mostly to a fall of 6.4% in the price of products under "Fish and fish preparations". No change has been registered in the price of sugar, which constitutes 78% of the weight for this section, because the same average yearly price is used for the four quarters of a crop year (see technical note attached).

When compared to the first quarter of 2003, the index for this section went up by 0.3%, mainly as a result of a 2.4% jump in the export price of sugar.

Crude materials, inedible, except fuels

A decrease in the export prices of fresh cut flowers has caused the sub-index for "Crude materials, inedible, except fuels" to contract by 18.4% compared to the previous quarter, and by 12.2% when compared to the corresponding quarter of 2003.

Chemicals and related products

The index for this section, which consists of fertilisers, moved from 104.1 in the fourth quarter of 2003 to 121.0, showing a rise of 16.2%. Compared to the corresponding quarter of 2003, the index went up by 28.5%.

Manufactured goods classified chiefly by material

Export prices of goods in this section, which consists mainly of textile fabrics, declined by 5.5%, the index moving from 99.6 in the fourth quarter of 2003 to 94.1. The export prices of "Cotton fabrics" went down by 4.8%.

Compared to the first quarter of 2003, the index declined by 5.3%, mainly due to prices of "Cotton fabrics" going down by 5.9%.

Miscellaneous manufactured articles

This is the most important section of the index as it carries about 67% of the total weight. It consists mostly of articles of wearing apparel from the Export Processing Zone (EPZ).

The index for this section decreased by 0.3%, going down from 101.6 in the fourth quarter of 2003 to 101.3 in the first quarter of 2004. Export prices of "Articles of apparel and clothing accessories", accounting for 98% of the weight for this section, decreased by 0.4% and those of "Optical goods, watches and clocks" went up by 7.0%.

Compared to the first quarter of 2003, the index moved up by 3.3% following increases of 3.1% in prices of "Articles of apparel and clothing accessories", and 11.9% in "Optical goods, watches and clocks".

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Table 1 - Quarterly Export Price Index by SITC¹, 2003 - 2004 (Reference year:2003=100)

SITC ¹ Section	Description	Weight	2003 Average	2003				2004 ²
				1st Qr	2nd Qr	3rd Qr	4th Qr	1st Qr
0	Food and live animals	2,942	100.0	99.2	98.9	101.3	100.6	99.5
	Fish and fish preparations	521	100.0	100.7	98.4	102.6	98.2	91.9
	Cereals and cereal preparations	55	100.0	95.5	98.8	99.9	105.8	109.0
	Sugar	2,296	100.0	98.8	98.8	101.2	101.2	101.2
	Molasses	15	100.0	120.5	120.5	79.5	79.5	79.5
	Feeding stuff for animals	55	100.0	98.6	99.0	102.8	99.4	95.2
2	Crude materials, inedible, except fuels	31	100.0	95.6	98.8	102.8	102.8	83.9
	Crude animal and vegetable materials	31	100.0	95.6	98.8	102.8	102.8	83.9
5	Chemicals and related products	21	100.0	94.2	98.7	103.0	104.1	121.0
	Fertilisers	21	100.0	94.2	98.7	103.0	104.1	121.0
6	Manufactured goods classified chiefly by material	293	100.0	99.4	99.2	101.9	99.6	94.1
	Paper, paperboard and articles of paper pulp, of paper or of paperboard	24	100.0	96.6	98.5	103.2	101.7	94.1
	Textile yarn, fabrics, made-up articles, n.e.s & related products	226	100.0	100.1	99.1	101.9	99.0	94.2
	Non-metallic mineral manufactures	43	100.0	97.5	99.9	100.9	101.8	94.0

¹ The Standard International Trade Classification Revision 3 (SITC Rev 3)

² Provisional

Table 1 (cont'd) - Quarterly Export Price Index by SITC¹, 2003 - 2004 (Reference year:2003=100)

SITC ¹ Section	Description	Weight	2003 Average	2003				2004 ²
				1st Qr	2nd Qr	3rd Qr	4th Qr	1st Qr
8	Miscellaneous manufactured articles	6,713	100.0	98.1	98.7	101.6	101.6	101.3
	Articles of apparel and clothing accessories	6,589	100.0	98.1	98.7	101.7	101.5	101.1
	<i>Men's or boys' coats, jackets, suits, blazers, trousers, shorts, shirts etc, not knitted or crocheted</i>	1,772	100.0	98.7	98.3	101.7	101.1	102.8
	<i>Women's or girls' coats, jackets, suits, blazers, trousers, shorts, shirts etc, not knitted or crocheted</i>	1,125	100.0	99.8	99.7	100.2	100.2	89.7
	<i>Men's or boys' coats, jackets, suits, blazers, trousers, shorts, shirts etc, knitted or crocheted</i>	286	100.0	98.9	98.3	102.3	100.5	98.0
	<i>Women's or girls' coats, jackets, suits, blazers, trousers, shorts, shirts etc, knitted or crocheted</i>	172	100.0	97.9	97.8	102.9	101.4	93.9
	<i>Articles of apparel, of textile fabrics, whether or not knitted or crocheted</i>	3,209	100.0	97.0	98.7	102.0	102.3	104.9
	<i>Clothing accessories, of textile fabrics, whether or not knitted or crocheted</i>	25	100.0	94.2	98.7	103.0	104.1	101.6
	Optical goods,n.e.s, watches and clocks	124	100.0	98.9	98.9	98.8	103.5	110.7
	<i>Optical goods</i>	38	100.0	99.3	99.3	99.3	102.2	96.3
	<i>Watches and clocks</i>	86	100.0	98.7	98.8	98.6	104.0	117.0
	Overall	10,000	100.0	98.4	98.8	101.5	101.2	100.5

¹ The Standard International Trade Classification Revision 3 (SITC Rev 3)

² Provisional

Table 2 - Percentage change by SITC¹, 1st Qr 2003 - 1st Qr 2004 (Reference year:2003=100)

SITC ¹ Section	Description	Weight	Percentage Changes (%) from				
			1st Qr 03 to 2nd Qr 03	2nd Qr 03 to 3rd Qr 03	3rd Qr 03 to 4th Qr 03	4th Qr 03 to 1st Qr 04	1st Qr 03 to 1st Qr 04
0	Food and live animals	2,942	-0.3	2.4	-0.7	-1.1	0.3
	Fish and fish preparations	521	-2.3	4.3	-4.3	-6.4	-8.7
	Cereals and cereal preparations	55	3.5	1.1	5.9	3.0	14.1
	Sugar	2,296	0.0	2.4	0.0	0.0	2.4
	Molasses	15	0.0	-34.0	0.0	0.0	-34.0
	Feeding stuff for animals	55	0.4	3.8	-3.3	-4.2	-3.4
2	Crude materials, inedible, except fuels	31	3.3	4.0	0.0	-18.4	-12.2
	Crude animal and vegetable materials	31	3.3	4.0	0.0	-18.4	-12.2
5	Chemicals and related products	21	4.8	4.4	1.1	16.2	28.5
	Fertilisers	21	4.8	4.4	1.1	16.2	28.5
6	Manufactured goods classified chiefly by material	293	-0.2	2.7	-2.3	-5.5	-5.3
	Paper, paperboard and articles of paper pulp, of paper or of paperboard	24	2.0	4.8	-1.5	-7.5	-2.6
	Textile yarn, fabrics, made-up articles, n.e.s & related products	226	-1.0	2.8	-2.8	-4.8	-5.9
	Non-metallic mineral manufactures	43	2.5	1.0	0.9	-7.7	-3.6

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¹ The Standard International Trade Classification Revision 3 (SITC Rev 3)

Table 2 (cont'd) - Percentage change by SITC¹, 1st Qr 2003 - 1st Qr 2004 (Reference year:2003=100)

SITC ¹ Section	Description	Weight	Percentage Changes (%) from				
			1st Qr 03 to 2nd Qr 03	2nd Qr 03 to 3rd Qr 03	3rd Qr 03 to 4th Qr 03	4th Qr 03 to 1st Qr 04	1st Qr 03 to 1st Qr 04
8	Miscellaneous manufactured articles	6,713	0.6	2.9	0.0	-0.3	3.3
	Articles of apparel and clothing accessories	6,589	0.6	3.0	-0.2	-0.4	3.1
	<i>Men's or boys' coats, jackets, suits, blazers, trousers, shorts, shirts etc, not knitted or crocheted</i>	1,772	-0.4	3.5	-0.6	1.7	4.2
	<i>Women's or girls' coats, jackets, suits, blazers, trousers, shorts, shirts etc, not knitted or crocheted</i>	1,125	-0.1	0.5	0.0	-10.5	-10.1
	<i>Men's or boys' coats, jackets, suits, blazers, trousers, shorts, shirts etc, knitted or crocheted</i>	286	-0.6	4.1	-1.8	-2.5	-0.9
	<i>Women's or girls' coats, jackets, suits, blazers, trousers, shorts, shirts etc, knitted or crocheted</i>	172	-0.1	5.2	-1.5	-7.4	-4.1
	<i>Articles of apparel, of textile fabrics, whether or not knitted or crocheted</i>	3,209	1.8	3.3	0.3	2.5	8.1
	<i>Clothing accessories, of textile fabrics, whether or not knitted or crocheted</i>	25	4.8	4.4	1.1	-2.4	7.9
	Optical goods,n.e.s, watches and clocks	124	0.0	-0.1	4.8	7.0	11.9
	<i>Optical goods</i>	38	0.0	0.0	2.9	-5.8	-3.0
	<i>Watches and clocks</i>	86	0.1	-0.2	5.5	12.5	18.5
	Overall	10,000	0.4	2.7	-0.3	-0.7	2.1

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¹ The Standard International Trade Classification Revision 3 (SITC Rev 3)

Table 3 - Quarterly Export Price Index (EPI), 1998 - 2004

Base year 1997 = 100		
1998	Qr 1	102.1
	Qr 2	106.1
	Qr 3	111.3
	Qr 4	113.8
	Year	108.3
1999	Qr 1	111.0
	Qr 2	110.0
	Qr 3	109.7
	Qr 4	109.7
	Year	110.1
2000	Qr 1	108.2
	Qr 2	105.3
	Qr 3	101.6
	Qr 4	102.4
	Year	104.4
2001	Qr 1	108.1
	Qr 2	107.4
	Qr 3	112.6
	Qr 4	114.8
	Year	110.7
2002	Qr 1	117.6
	Qr 2	120.2
	Qr 3	126.5
	Qr 4	126.8
	Year	122.8
2003	Qr 1	124.9
	Qr 2	126.5
	Qr 3	130.2
	Qr 4	131.2
	Year	128.2
Reference year 2003 = 100		
2004 ¹	Qr 1	100.5

¹ Provisional

Technical Note

Export Price Index (EPI)

Methodology for the Construction of the EPI

Definition

The Export Price Index (EPI) is a measure of price change of domestically produced Mauritian products shipped to other countries, i.e it excludes re-exports. In addition to the overall index, separate sub-indices are also calculated for different product categories at more detailed level.

The first series of EPI was calculated with the year 1993 as base and reference period. The index was first revised in 1997 and subsequently revised in 2003.

Comparison with Unit Value Index

The Unit Value Export Index provides only a proxy measure for price changes of exported goods. It is derived from value and quantity data of products or groups of products obtained from trade returns and is thus highly dependent on the degree of homogeneity of the groups of products considered. On the other hand, the EPI measures pure price changes and is based on actual price measurements of relatively more homogeneous group of products. It requires elaborate specifications of products and takes into account all the main price determining factors such as country of destination, quality, mode of transport and mode of payment.

Scope and Classification

The EPI covers all domestic exports, the most important commodities being sugar and textile fabrics and articles of apparel and clothing accessories produced by the EPZ sector.

The index is based on the Nomenclature of the Standard International Trade Classification of the United Nations (SITC Rev 3). Separate sub-indices are produced for each SITC section and for more detailed groups where possible.

Selection of Items and Firms

A representative sample of 38 firms has been selected from trade declarations submitted to the Customs and Excise Department in 2002. The sample was drawn from exporting firms on the basis of regularity of their trade and their volume of exports. A total of 80 items (Entry Level Items, ELI's) which represent 36 products are priced from the selected enterprises.

Weighting Scheme

The weights are derived from the 2002 domestic exports. Weights assigned to each section and group are based on their export values in 2002. Each product or group of products selected for pricing purposes represents all products that fall within that weight group.

Base and Reference Period

The base period for the EPI is calendar year 2002 and the reference period 2003. Bench mark data for the year 2002, based on trade returns, have been used to derive weights. The selected firms have supplied prices of selected commodities for each of the 12 months in 2003. The yearly average price of each product has then been worked out and is used as base price for that product.

Price Collection

Prices are collected directly from co-operating export firms. As far as possible price quotations are reported on a free on board (F.O.B.) basis and are mostly contract prices. Each reporting firm is visited once every quarter but prices are supplied on a monthly basis and are averaged for each quarter.

Sugar and Molasses

Due to their specificity, sugar and molasses have been treated differently. Sugar and molasses produced during a crop year, which normally extends between July and June of the following year, are usually exported during that same crop year. Export prices of these commodities, sugar in particular, are mostly negotiated prices. These prices can be quite volatile between quarters depending on the destination of the shipments. Therefore, in order to eliminate these price distortions between quarters, the same average yearly price for the crop year is used for the four quarters comprising that crop year. The base price of these commodities for the year 2003 is the average price for crops years 2002/03 and 2003/04.

Calculation of the EPI

A modified Laspeyres formula based on the weighted average of price relatives is used to calculate the EPI: 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

Uses

The primary use of the EPI is to deflate export trade statistics. It provides quarterly measures of price trends of Mauritian products sold abroad and can be used for calculating changes in the volume of exports.

It can also serve 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.