

# Rebasing of the Import, Export, Singapore Manufactured Products and Domestic Supply Price Indices (2023 = 100)

by Toh Wei Jun, Tan Bing Xiang and Li Pei Pei

Prices Division

Singapore Department of Statistics

## Introduction

The Import Price Index (IPI), Export Price Index (EPI), Singapore Manufactured Products Price Index (SMPPI) and Domestic Supply Price Index (DSPI) compiled by the Singapore Department of Statistics (DOS) are used to track price movements of goods and measure the real value of the trade and manufacturing sectors as well as domestic supply of goods.

Periodic rebasing of the indices ensures that the commodities used in the computation of the price indices account for changes to the latest trade, manufacturing and supply patterns. In the latest exercise, these producer price indices were rebased from base year 2018 to 2023.

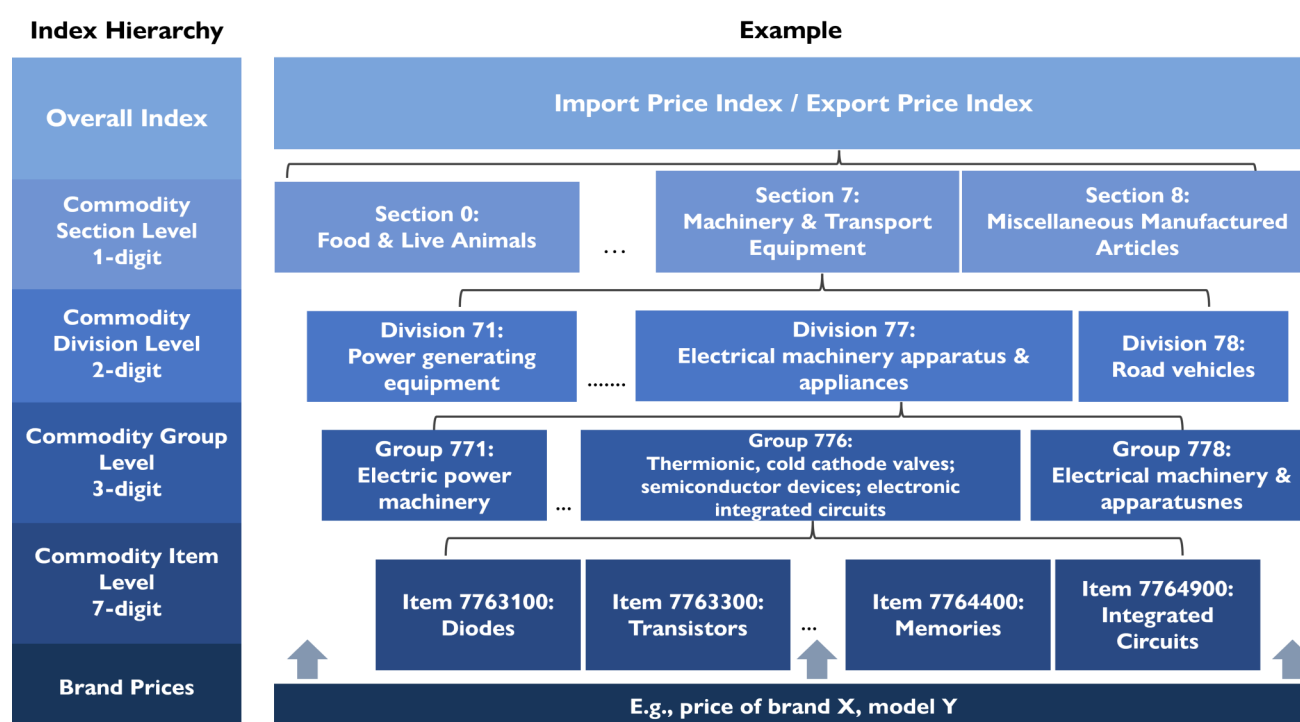
This article provides an overview of the rebasing exercise for the four price indices, highlighting the changes in the weighting patterns and trends between the 2023-based and 2018-based indices.

## Definition and Index Structure

The IPI, EPI and SMPPI measure the price changes of merchandise imports, merchandise exports and Singapore manufactured products respectively. The DSPI is an index derived from the IPI and SMPPI, which measures the price changes of commodities used in the domestic economy.

The price indices are structured in accordance with the Standard International Trade Classification, Revision 4.1 (SITC Rev 4.1)<sup>1</sup>. The most detailed level of this classification is the 7-digit commodity item level (e.g., Integrated Circuits). Higher or broader levels include:

- 3-digit group level (e.g., Semi-conductor Devices, Electronic Integrated Circuits)
- 2-digit division level (e.g., Electrical Machinery Apparatus & Appliances)
- 1-digit section level (e.g., Machinery & Transport Equipment)



<sup>1</sup> The Standard International Trade Classification (SITC) is a product classification of the United Nations used for the publication of statistics on export and import values and volumes of goods. Classifying products based on the SITC allows for international comparisons of commodities and manufactured goods.

## Survey Coverage and Products Selection

In the 2023 rebasing exercise, purposive sampling was used in the selection of commodity items with (7-digit SITC codes); only commodity items that were significant in their respective sections were selected.

Thereafter, the selected major importers, exporters and manufacturers of the chosen commodity items provided details on the product, model or brand specifications during the preliminary survey of the rebasing exercise. The surveys involved about 2,700 importers, 1,600 exporters and 1,200 local manufacturers.

Only products that were available on a frequent and regular basis and of significance to each selected company were then chosen to be included in the respective basket of goods of each price index.

Table 1 lists the final selection of the baskets of goods for the respective indices and the number of businesses covered.

**TABLE 1**  
NUMBER OF SELECTED COMPANIES, COMMODITY ITEMS AND PRODUCTS COVERED UNDER THE 2023-BASED PRICE INDICES

	Number of Companies Covered	Number of Commodity Items	Number of Products <sup>2</sup> Selected
IPI	843	546	2,521
EPI	527	315	1,590
SMPPPI	329	158	851
DSPI	-	591	-

## Weights Distributions

Up-to-date data sources were used to derive the weights distribution for the 2023-based price indices.

The weights at the 1-, 2-, 3- and 7-digit levels for the IPI and EPI were compiled from the 2023 merchandise import and export values<sup>3</sup> while the weights for the SMPPPI were derived using the 2022 production values<sup>4</sup>. For the DSPI, the weights were based on the 2022 retained imports<sup>5</sup> and domestic production sales<sup>6</sup> values.

Chart 1 compares the weight distribution between the 2023-based and 2018-based price indices.

The Machinery & Transport Equipment section remained the leading section for all indices base year 2023. The Machinery & Transport Equipment, Oil (Mineral Fuels) and Chemicals & Chemical Products sections continued to be the top three sections across all four price indices.

Together, these sections represented at least 80% of the total weight of each 2023-based index.

## Trend Comparison: 2023-based vs 2018-based Price Indices

Chart 2 provides a comparison of the trends observed in the 2023-based and the 2018-based indices over the period of January to December 2023.

For all four indices, the overall trends of the 2023-based series were less volatile as compared to those of the 2018-based series, with a smaller increase registered in the third quarter of 2023 for the IPI and DSPI.

Similarly, a smaller decrease was observed in the fourth quarter of 2023 for the IPI, SMPPPI and DSPI.

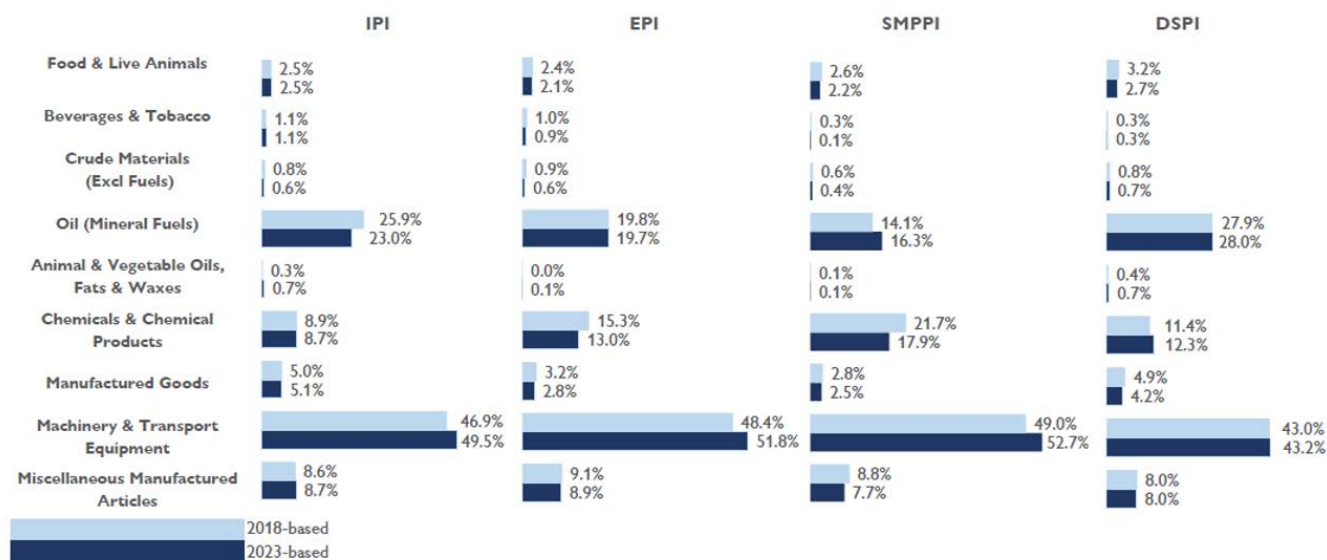
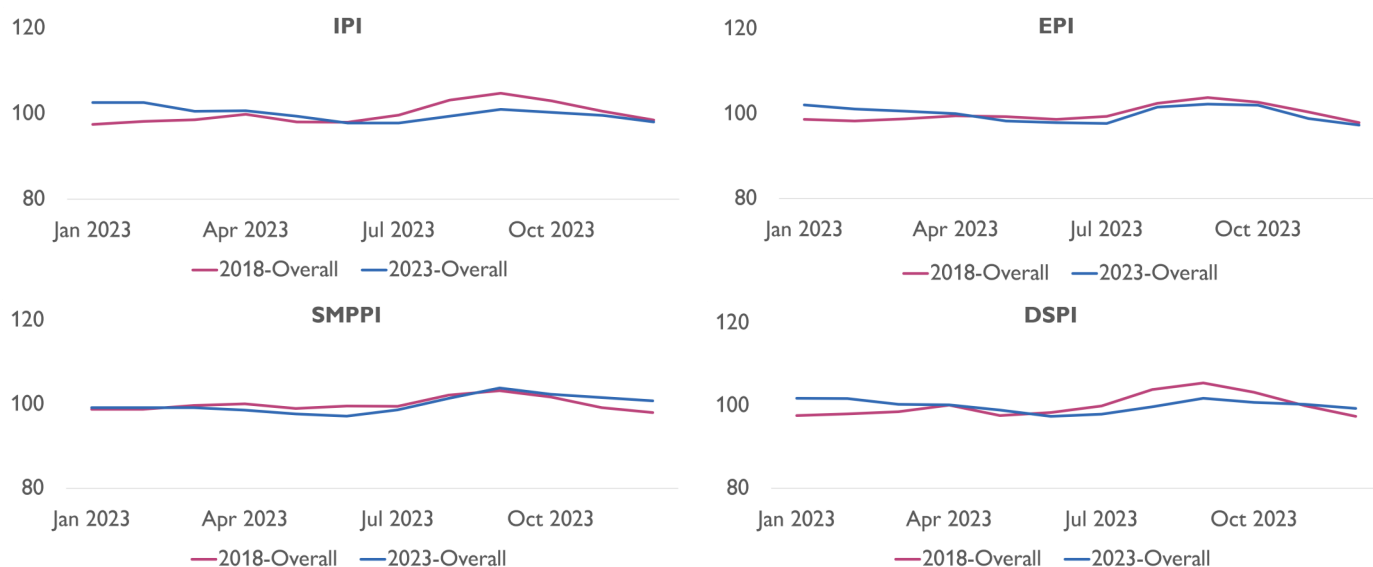
2 The product level is the level at which prices are collected e.g., Brand AA Integrated Circuit Type Model ABC123.

3 Import and Export values are obtained from the International Merchandise Trade Statistics compiled by Enterprise Singapore (ESG).

4 Production values are obtained from the Census of Manufacturing Activities conducted by the Singapore Economic Development Board (EDB)

5 Retained imports refer to the values of imports less re-exports.

6 Domestic production sales refer to the total production value of local producers less exports.

**CHART 1** COMPARISON OF WEIGHTS DISTRIBUTION BETWEEN 2023-BASED AND 2018-BASED PRICE INDICES**CHART 2** COMPARISON OF 2023-BASED AND 2018-BASED PRICE INDICES

## Conclusion

In the 2023 rebasing exercise, the baskets of goods used for the compilation of the IPI, EPI, SMPPI and DSPI, along with their respective weights have been refreshed, consequently improving the quality and representativity of the indices. The next rebasing exercise will be carried out in the next five to six years, in accordance with international guidelines for the rebasing of producer price indices.

For more details on the latest rebasing exercise of the four price indices, please refer to the Information Papers '[Rebasing of the Import and Export Price Indices \(2023=100\)](#)' and '[Rebasing of Singapore Manufactured Products and Domestic Supply Price Indices \(2023=100\)](#)'.

Monthly reports on the latest IPI, EPI, SMPPI and DSPI are released on the [SingStat Website](#). Data on the indices are available on the [SingStat Table Builder](#).