

Information Paper Series

Producer Price Index for Postal and Courier Services (Base Year 2023)



information paper on

price statistics

PRODUCER PRICE INDEX FOR POSTAL AND COURIER SERIVCES (BASE YEAR 2023)

Singapore Department of Statistics
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I INTRODUCTION

- 1. The Singapore Department of Statistics (DOS) has compiled and published the Postal & Courier Price Index (PCPI). The PCPI is a producer price index that measures changes in the prices of services provided by Singapore-registered postal and courier establishments¹.
- 2. The PCPI is the newest addition to the family of Services Producer Price Indices compiled by DOS. The index facilitates the analysis of macro-economic conditions and monitoring of price movements in the postal and courier industry. In addition, it can be used as a price deflator in national accounts to estimate the real growth of the industry within the Singapore economy.
- 3. Development work for this index began in January 2023, where key business stakeholders were engaged to better understand local market conditions and pricing methods. Subsequently, price surveys were conducted from the second half of 2023 to collect sample products and prices necessary for the construction of the price index. After a period of monitoring, feedback from relevant government agencies were sought in 2024 before making the PCPI publicly available.
- 4. This paper provides a brief overview of the postal and courier industry, with insights on the development, methodology, compilation and analysis of the PCPI.

II INDUSTRY OVERVIEW

5. Firms providing postal and courier services as their principal activity are classified under the following Singapore Standard Industrial Classification (SSIC) 2020² codes:

53 – Postal and Courier Activities
 531 – Postal Activities
 5310 - National Post Activities (e.g. postal services)
 532 – Courier Activities
 5320 - Courier Activities Other than National Post Activities

6. Postal services in Singapore are mainly governed by the Postal Services Act and are regulated by the Infocomm Media Development Authority (IMDA). Prices and terms and conditions for the regulated postal services, including letter services for public users and bulk mail scheme, are approved by IMDA. Courier services, on the other hand, are not regulated. The sector is fully open and competitive, with many local and international service providers providing such services within and outside Singapore.

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¹ The PCPI measures price changes in postal and courier services for business-to-business (B2B) and business-to-consumer (B2C) transactions, while the Consumer Price Index (CPI) tracks prices paid by consumers for similar services.

 $^{^2}$ The SSIC 2020 publication is available at: $\underline{\text{https://www.singstat.gov.sg/standards/standards-and-classifications/ssic}}$

7. **Figure 1** shows the number of firms, operating revenue, and value added for the postal and courier industry from 2018 to 2023. The industry grew steadily, with more pronounced growth post-Covid. Value added for the industry rose from \$866 million in 2018 to \$1.2 billion in 2023.

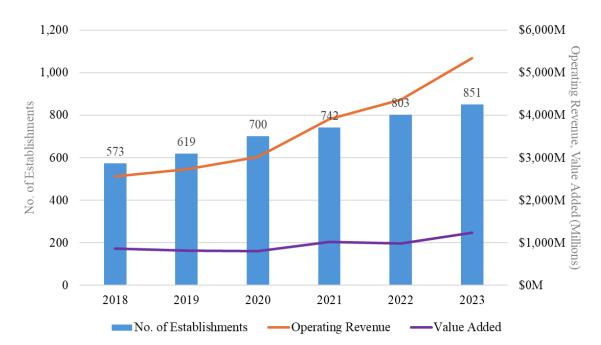


Figure 1: Number of Firms, Operating Revenue and Value Added under SSIC 53 Postal & Courier³

Higher Demand for Courier Services

8. The increase in value added, operating revenue, and number of establishments over the years could be attributed to higher demand for courier services arising from changing consumer behaviour and business operations. Tech-savvy consumers have the flexibility of purchasing their goods online, instead of from brick-and-mortar stores. Purchases could be made directly from websites of established brands or indirectly from online marketplaces. Courier companies are usually employed to pick up the products from the seller's address to deliver the goods to the consumer.



³ Data source: Annual Services Statistics, DOS (https://tablebuilder.singstat.gov.sg/table/TS/M601481). Data as of February 2025.

9. Apart from engaging courier firms for last mile deliveries, businesses may streamline their supply chain operations by engaging logistics providers and courier companies to manage the transportation of intermediate products in freight shipments or parcels across warehouses and offices. Large courier companies, mostly with their own transportation assets and wide global coverage, have the capabilities to tap into this growing market, with some even providing specialised (e.g., time-sensitive, temperature sensitive, etc.) transportation services for the biomedical or pharmaceutical industries.



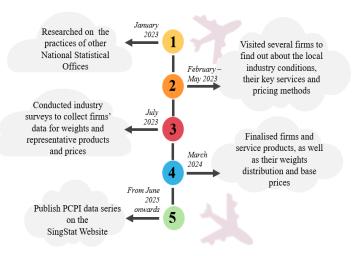
III DEVELOPMENT OF THE POSTAL & COURIER PRICE INDEX

10. **Figure 2** lists the key stages in the development of the PCPI, which began in January 2023.

Literature Review and Industry Engagement

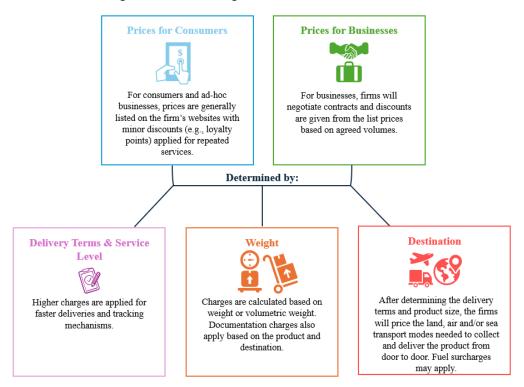
11. Research was carried out to study business activities and services provided by local postal and courier firms, as well as other National Statistical Offices' methodologies and best practices (e.g., index structure and pricing methodology for the industry).

Figure 2: PCPI Development Timeline



12. Besides undertaking the literature review, DOS visited firms in the postal and courier industry to better understand the landscape and local practices in Singapore. The meetings provided insights on the firms' pricing policies (**Figure 3** below) and industry challenges.

Figure 3: Determining the Price of a Courier Service



Surveys

13. The Postal & Courier Services Industry Survey was conducted in July 2023 for firms classified under SSIC 53 to collect operating revenue data and samples of representative service products. **Figure 4** shows the sample of a blank survey form sent to respondents.

Figure 4: Sample of Survey Form to Collect Service Products

Product Specifications									
Customer Code:	[Do not provide the real client name. This code is for reference between DOS and your company only.]								
Vehicle Type:	[Leave blank if you are providing international courier service]								
Region:	egion: [Leave blank if you are providing local courier service]								
Parcel Details: [E.g., weight limit, refrigerated product]									
Tiered Volume:	Tiered Volume: [E.g., provide range of tier structure]								
Service Description:									
Price, S\$	Jan-23	Feb-23	Маг-23	Apr-23	May-23	Jun-23			
Base Price									
Fuel Surcharges									
Documentation Charges									
State other charges below, if any,									
Other Charges 1:									
Other Charges 2:									
Other Charges 3:									
Remarks:									

14. The operating revenue data were used to determine the index weights, while the service products were identified to be priced as part of the routine compilation. Upon identifying the service products, price surveys were conducted on a quarterly basis to compile the index. As part of DOS's efforts to reduce respondent burden, subsequent price survey forms were streamlined and customised for survey respondents.

IV COMPILATION OF THE 2023-BASED PCPI

- 15. The 2023-based PCPI is compiled after collecting prices for 12 months and selecting service products that could be priced over time for the quarterly price surveys. The services covered in the PCPI include postal services related to letters and parcels, domestic courier and international courier services. Activities such as post-office counter services, local delivery services for food or other postal services are excluded from the PCPI.
- 16. The PCPI uses the weighted arithmetic mean (AM) Modified Laspeyres formula where the weight reference period of 2022 preceded the price reference period of 2023. Price relatives of the service products, together with their respective weights, are aggregated to form the main service indices, followed by the overall PCPI index. More details on the index computation are available in Appendix I.

Index Structure and Weights

17. The PCPI index structure is presented in <u>Figure 5</u>. The index comprises two main indices, namely the Local PCPI and the International PCPI. Local PCPI refers to postal and courier services provided within Singapore only, while the International PCPI refers to inbound and outbound postal and courier services for Singapore. The International PCPI is the larger of the two main indices contributing 86% to the overall index, with the remaining 14% attributed to the Local PCPI. The main indices are built up from prices of individual service products. The weights assigned to a service product is calculated based on the firm's contribution to the index and divided equally by the number of products surveyed (see Appendix II).

Postal & Courier **Price Index** International Local Main Indices (86%)(14%)Example Service Specifications Service Customer ID **Products** Parcel Details: Service Description Mar Feb Rose Price: **Documentation Charges**

Figure 5: PCPI Index Structure and Weights

Pricing Methods and Data Collection

18. The main pricing methods used are the direct use of prices of repeated services and contract pricing. Monthly prices for around 60 service products are collected from selected Singapore-registered postal and courier services establishments (based on purposive sampling) via quarterly price surveys. Internet prices are used where feasible and deemed to be representative of actual prices.

V PRICE TREND ANALYSIS

19. **Figure 6** shows the index values of the 2023-based PCPI from 1Q 2023 to 1Q 2025. On average, the PCPI rose 1.2% in 2024 from 2023. Firms tend to raise prices in the new year, as seen from the increase in the index for both 1Q 2024 and 1Q 2025, as compared to previous quarter (**Figure 7**).

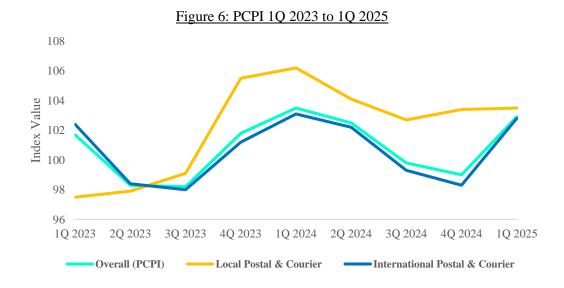
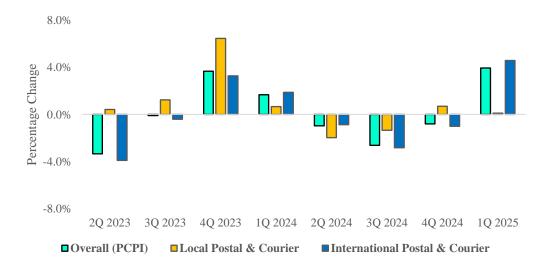


Figure 7: PCPI Quarter-on-Quarter Percentage Change



VI CONCLUSION

- 20. The development of the PCPI was an important project which required considerable effort to understand the industry through literature research and consultation visits.
- 21. The insights gained from the industry visits were instrumental in providing DOS with a deeper understanding of the eventual index structure and pricing methods that could be used. With better knowledge of the industry's context, surveys were designed effectively for easier provision of returns from survey respondents.
- 22. Despite ongoing transformation in the postal and courier services industry (e.g., diversifying product offerings and improving delivery globally through strategic alliances), the general outlook points to a price-sensitive industry as courier firms vie for market share. Firms are also embracing technology (e.g., artificial intelligence) to reduce costs, while also implementing sustainability measures such as the use of electric vehicles to reduce carbon footprint, which may affect prices in the longer term. DOS will continue to monitor developments in this industry to ensure the index's quality, as well as its relevance and timeliness to data users.

VII DISSEMINATION OF DATA

23. From 2025, data on the PCPI are published in the quarterly Services Producer Price Indices (SPPI) report, on the 25th day of the 3rd month after the reference quarter, or the next working day if it falls on a Saturday, Sunday or Public Holiday. The report is available on the SingStat Website (https://go.gov.sg/report-sppi) or through the QR code appended below. The indices can be downloaded via the SingStat Table Builder (https://www.singstat.gov.sg/tablebuilder).



Singapore Department of Statistics 25 June 2025

GLOSSARY

GLOSSARY OF TERMS AND DEFINITIONS

Base Year:

Also known as the price reference year, that is, the period whose prices appear in the denominators of the price relatives used to calculate the index. It is also understood to be the year which the index is set equal to 100.

Direct Use of Prices of Repeated Services:

A pricing method that represents the ideal of using real transacted prices, or less preferably list prices, of the same service product in successive survey periods.

Laspeyres Price Index:

A price index defined as a fixed-weight index that uses the basket of products of the base year.

Pricing Methods:

A procedure solely concerned with data relating to prices that is put in place by index compilers to make price data suitable for use in index compilation. Carried out prior to compiling the lowest level indices, the selection of the appropriate pricing method for a service product or industry is largely determined by the pricing mechanism employed for that product or industry.

Price Relative:

The ratio of the price of an individual service product in one period to the price of that same service product in another period.

Services Producer Price Indices:

The services producer price indices (SPPIs) are designed to trace price movements that reflect the supply and demand conditions in the service markets, with a view to facilitate the analyses of macro-economic conditions and monitor inflationary pressures. SPPIs are also used as deflators in national accounts.

Service Specifications:

A detailed list of the characteristics that identify an individual sampled service product. Its purpose is to ensure that a consistent price is collected from period to period relating to a consistent service product with the same terms of sale in each period.

Weights:

A set of numbers used to weight price relatives. Weights and price relatives are averaged to obtain higher level price indices.

Weight Reference Period:

The period in which the detailed weights were determined for the index.

APPENDICES

APPENDIX I: Index Computation

- I. The PCPI uses the weighted arithmetic mean Modified Laspeyres formula where the weight reference period of 2022 preceded the price reference period of 2023.
- II. At the most detailed level, a price relative is derived for each service product by taking the ratio of the current quarter's price to its corresponding base period price.

Price Relative of Service Products:

$$PR_{jt} = \frac{P_{jt}}{P_{j0}} \times 100$$

where, PR_{jt} = price relative of j^{th} service product in period t relative to base period P_{jt} = price of j^{th} service product in period t P_{j0} = price of j^{th} service product in the base period

III. The price relatives of the service products together with their respective weights are aggregated to form the main level price indices, and then to the overall PCPI.

Price Index at Main Level:

$$I_{kt} = \sum_{j=1}^{n_k} w_j \times PR_{jt}$$

where, I_{kt} = price index of the k^{th} service type in period t PR_{jt} = price relative of j^{th} service product in period t n_k = number of service products within k^{th} service type w_j = relative weight of the j^{th} service product $\sum w_j = W_k$

Price Index at Overall Level:

$$I_t = \sum W_m \times I_{mt}$$

where, I_t = price index in period t W_m = the relative weight of the m^{th} main service index $\sum W_m = 1$

APPENDIX II: Weights and Main Indices of 2023-based PCPI

POSTAL & COURIER PRICE INDEX (2023=100)										
Dries Index	Weights	2023				2024				2025
Price Index		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
POSTAL & COURIER	10,000	101.7	98.3	98.2	101.8	103.5	102.5	99.8	99.0	102.9
Local Postal & Courier	1,376	97.5	97.9	99.1	105.5	106.2	104.1	102.7	103.4	103.5
International Postal & Courier	8,624	102.4	98.4	98.0	101.2	103.1	102.2	99.3	98.3	102.8
		Qu	arter-on	-Quarter	Percenta	age Chan	ge			
POSTAL & COURIER	10,000	na	-3.3	-0.1	3.7	1.6	-1.0	-2.6	-0.8	4.0
Local Postal & Courier	1,376	na	0.3	1.3	6.5	0.7	-2.0	-1.4	0.7	0.2
International Postal & Courier	8,624	na	-3.9	-0.4	3.3	1.8	-0.8	-2.9	-1.1	4.6
Year-on-Year Percentage Change										
POSTAL & COURIER	10,000	na	na	na	na	1.8	4.3	1.6	-2.8	-0.6
Local Postal & Courier	1,376	na	na	na	na	8.9	6.4	3.6	-2.0	-2.5
International Postal & Courier	8,624	na	na	na	na	0.7	3.9	1.3	-3.0	-0.3

Notation:

na not available or not applicable

Notes:

Numbers may not add up to the totals due to rounding.

Data are the latest available at the time of access or download. Some statistics, particularly those for the most recent time periods, are provisional and may be subject to revision at a later date.

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