

編 製 方 法 說 明

服務業生產者物價指數

一、查編沿革：

依國際貨幣基金(IMF)等國際組織編撰之生產者物價指數(PPI)編製手冊規範，PPI 係衡量生產者銷售商品及服務之價格變化。我國110年創編之 PPI 內涵僅及商品，為接軌國際，充實國內統計指標，自112年3月(資料時間為112年1月)創編倉儲、銀行、財產保險、證券等4業別服務業生產者物價指數(Services Producer Price Index, SPPI)，113年3月增編住宿、餐飲等2業別，未來將逐步擴增編布業別。SPPI 於民國年尾數為0及5之年份進行更換基期作業。

二、編製目的與用途：

(一)編製目的：

為衡量國內服務業者提供服務之產出價格水準變動情形。

(二)主要用途：

- 1.供財經決策及學術研究之用。
- 2.為國民所得統計及產業關聯統計參考。

三、查價項目：

依據 105 年工業及服務業普查或各機關業管相關服務業統計；目前選定倉儲、住宿、餐飲、銀行、財產保險、證券等 6 業別之查價項目計 46 項。

四、指數分類：

(一)總指數：無。

(二)業別指數：依我國第10次行業統計分類，編布倉儲業(53中業)、住宿業(55中業)、餐飲業(56中業)、銀行業(6412細業)、財產保險業(652小業)及證券業(661小業)。

五、指數基期：

以民國 110 年全年平均=100。

六、權 數：

以 105 年工業及服務業普查生產總額為主，輔以各機關業管相關服務業統計。

七、價格查報：

(一)查價方式：除銀行業之銀行中介服務及證券業之經紀業務服務分別依金融監督管理委員會及臺灣證券交易所與證券櫃檯買賣中心之公務統計資料設算外，餘皆採通訊調查或網路填報方式，由選定之國內服務業者按月向行政院主計總處填報。

(二)查價地區及對象：臺閩地區主要服務業者。

(三)查價基準：以各月最接近20日之實際服務產出價格(不包括運費及營業稅，亦扣除折讓、贈品、折扣及補貼等)，如無交易時，以最近行情代替或沿用上月價格；住宿業另採週平均價格。

八、計算方法：

(一)指數公式：採用拉氏公式計算，各類及項目權數固定。

1.計算項目價比：

$$\frac{P_{ij}}{P_{107.12,j}} = \frac{\sum_o \frac{P_{i,j,o}}{P_{107.12,j,o}} \times W_{j,o}}{\sum_o W_{j,o}}$$

2.計算指數：

$$I_{i/110}^{105CH} = \frac{\sum_j \frac{P_{ij}}{P_{107.12,j}} \times (P_{107.12,j} \times Q_{105,j})}{\sum_j (P_{107.12,j} \times Q_{105,j})} \times I_{107.12/110}^{100CH}$$

i：計算期

j：項目

o：花色

P：價格

Q：數量

$P_{107.12}$ ：107年12月價格

$\frac{P_{i,j,o}}{P_{107.12,j,o}}$ ：

第 i 期第 j 項目 o 花色對107年12月之價比

$W_{j,o}$ ：

第 j 項目 o 花色基期年之權數

$P_{107.12,j} \times Q_{105,j}$

為 j 項目 105 年產量以 107 年 12 月價格衡量之生產總額。

$I_{107.12/110}^{100CH}$

為 100 年市場籃，以 110 年指數為 100 之 107 年 12 月指數。

$I_{i/110}^{105CH}$

為 105 年市場籃，以 110 年指數為 100 之 i 計算期月指數。

(二)年指數：年指數為各月指數之簡單算術平均(取2位小數)。

(三)查價項目缺價之更換花色處理：

改查性質相類似之新花色牌號價格，並以漲跌率推算其基期價格，估算方法如下：

$$\text{新查服務基期價格} = \frac{\text{原查服務基期價格}}{\text{原查服務(缺價)前1計算期價格}} \times \text{新查服務前1計算期價格}$$

九、指數發布：

每月結束後第2個月的5個工作日發布(如遇春節、較長連假或特殊情況，將酌予調整)物價變動相關結果，並公布於本總處網站(<https://www.dgbas.gov.tw>)及中華民國統計資訊網(<https://www.stat.gov.tw>)，詳細結果刊載於物價統計月報電子書。

Description of Methods Used in Compilation of Services Producer Price Index

1. Historical Notes

According to the Producer Price Index Manual compiled by the International Monetary Fund (IMF), PPI can be described as an index designed to measure either the average change in the price of goods and services as they leave the place of production or as they enter the production process. In order to expand the coverage of PPI, which started in 2021 and only measures the average change in the price of goods, the Services Producer Price Index (SPPI) started publishing the general index of Warehousing and Storage, Banking, Non-life Insurance and Securities in March 2023 using January 2023 data. In March 2024, SPPI has been expanded to include Accommodation, Food and Beverage Service Activities and will be gradually expanded the coverage of industries in the future. In addition, SPPI will be rebased every 5 years.

2. Purpose and Uses

(1) Purpose

The services producer price index is to measure the average changes of prices in service products received by domestic service producers for their output.

(2) Uses

- ① For financial decision-making and academic researches.
- ② As a reference for a deflator for GDP and I/O Tables.

3. Priced Items

According to the data from Industry and Service Census in 2016 and the statistics related to competent authorities, the SPPI of Warehousing and Storage, Accommodation, Food and Beverage Service Activities, Banking, Non-life Insurance and Securities covers 46 items.

4. Index Classification

(1) General Index : Not compiled.

(2) Indices classified by industry : Based on the “Statistical Classification of Industries (Rev. 10, 2016)”, publish the general index of Warehousing and Storage(53), Accommodation(55), Food and Beverage Service Activities(56), Banking(6412), Non-life Insurance(652) and Securities(661).

5. Index Base Period

The average index for 2021=100.

6. Weights

The data for weights comes primarily from Industry and Service Census in 2016 and the statistics related to competent authorities.

7. Pricing

(1) Price Surveyed

The prices are reported by designated companies every month by mail or through Internet Reporting Systems, whereas prices of financial intermediation services of Banking and brokerage services of Securities are calculated through official statistics related to Financial Supervisory Commission, Taiwan Stock Exchange and Taipei Exchange respectively.

(2) Coverage of the survey

Major service providers in Taiwan.

(3) Pricing criteria

The designated companies are required to report the actual prices of selected service products with the same specification (in principle, price after adjustment for rebate, tax, shipment, etc.) around the 20th of a month while Accommodation uses weekly average price instead.

8. Computation

(1) Formula: The index is computed by the derived from of Laspeyres Weighted Aggregate Formula, and the weight of all items and groups are constant.

① Item price relatives:

$$\frac{P_{i,j}}{P_{2018.12,j}} = \frac{\sum_o \frac{P_{i,j,o}}{P_{2018.12,j,o}} \times W_{j,o}}{\sum_o W_{j,o}}$$

② Index

$$I_{i/2021}^{2016CH} = \frac{\sum_j \frac{P_{i,j}}{P_{2018.12,j}} \times (P_{2018.12,j} \times Q_{2016,j})}{\sum_j (P_{2018.12,j} \times Q_{2016,j})} \times I_{2018.12/2021}^{2011CH}$$

i : current period j : item o : brand

P : price Q : quantity P_{2018.12} : the price for December
2018

W_{j,o}: brand weight

P_{2018.12,j} × Q_{2016,j} : total production volume of 2016 basket for service

product j, valued at December 2018 price.

$I_{2018.12/2021}^{2011CH}$: the price index for December 2018 with 2011 basket and 2021 as the base period.

$I_{i/2021}^{2016CH}$: the chain price index for i period with 2016 basket and 2021 as the base period.

(2) The yearly index is the arithmetical average of the monthly indices, rounded to nearest hundredth.

(3) Treatment for lack of priced service products:

If the service product is not provided on market, a similar service product is priced and the adjustment should be made according to the following formula:

$$\text{Price of substitute service product at base period} = \frac{\text{Price of originally surveyed service product at base period}}{\text{Price of originally surveyed service product at period prior to current one}} \times \text{Price of substitute service product at period prior to current one}$$

9. Publication

The monthly index is published on the 5th working day of the second month (subject to adjustment due to Lunar New Year, consecutive public holidays or other special circumstances) after the end of the reference month. The e-book "Price Statistics Monthly" with the detailed figures is made available immediately at the time of release; please see <https://eng.dgbas.gov.tw> or <https://eng.stat.gov.tw> for details.