

編 製 方 法 說 明

生 產 者 物 價 指 數

一、查編沿革：

生產者物價指數(Producer Price Index, PPI)自 110 年 2 月(資料時間為 110 年 1 月)創編及正式公布，每 2-3 年進行更換基期作業。110 年基期指數採點銜接方式計算，以 111 年 12 月為銜接點，並自 112 年 2 月(資料時間 112 年 1 月)公布

二、編製目的與用途：

(一) 編製目的：為衡量國內生產廠商所生產商品離開生產場所時之價格水準變動情形。

(二) 主要用途：

1. 供財經決策及學術研究之用。
2. 為國民所得及產業關聯統計參考。

三、查價項目：

依據民國 110 年臺閩地區經濟之生產銷售(包含內銷及出口)結構選定查價項目計 676 項。

四、指數分類：

除總指數外，另配合我國第 11 次行業統計分類，下分 4 個大類，30 個中類及 79 個小類分類指數，其中發布者為 4 個大類、30 個中類及 78 個小類。

五、指數基期：

以民國 110 年全年平均=100。

六、權 數：

以各大類 110 年國產銷售值分攤權數值，並依序分攤決定中、小類、細類及項目權數；農、林、漁、牧業產銷值分別參考「農業年報」、「林業統計年報」及「漁業年報」；水及電類主要依據自來水公司及台電提供之資料，其餘則參酌工業生產、國民所得及各同業公會等資料；另新鮮蔬菜及水果兩類指數採按月變動權數編算，在類權數固定下，各項目之權數則依據近 3 年各月平均銷售值計算而呈逐月變動。

七、價格查報：

(一) 查價方式：除農、林、漁、牧產品採行政院農業委員會、漁業署調查之價格資料外，餘採通訊調查或網路填報方式，由選定之國內廠商按月向行政院主計總處填報；部分內、外銷品直接引用行政院主計總處營

造工程及出口物價之價格資料。

(二) 查價地區及對象：臺閩地區主要生產廠商。

(三) 查價基準：每月最接近 20 日(或最接近之營業日)之查價商品實際淨出廠價格(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，則以行情價格代替或沿用上月價格。

八、計算方法：

(一) 指數公式：總指數與類指數均採用拉氏公式計算，各大、中、小、細類權數均予固定，項目中除新鮮蔬菜及水果外，其餘權數亦固定。

1. 計算項目價比：

$$\frac{P_{i,j}}{P_{111.12,j}} = \frac{\sum_o \frac{P_{i,j,o}}{P_{111.12,j,o}} \times W_{j,o}}{\sum_o W_{j,o}}$$

2. 計算指數：

$$I_{i/110}^{110CH} = \frac{\sum_j \frac{P_{i,j}}{P_{111.12,j}} \times (P_{111.12,j} \times Q_{110,j})}{\sum_j (P_{111.12,j} \times Q_{110,j})} \times I_{111.12/110}^{108CH}$$

i：計算期

j：項目

o：花色

P：價格

Q：數量

$P_{111.12}$ ：111年12月價格

$\frac{P_{i,j,o}}{P_{111.12,j,o}}$ ：

第 i 期第 j 項目 o 花色對111年12月之價比

$W_{j,o}$ ：

第 j 項目 o 花色基期年之權數

$P_{111.12,j} \times Q_{110,j}$ ：

第 j 項目商品110年銷售量以111年12月價格衡量之總銷售

$I_{111.12/110}^{108CH}$ ：

108年市場籃，以110年指數為100之111年12月指數

$I_{i/110}^{110CH}$ ：

110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) 查價項目缺貨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：

$$\text{新查商品基期價格} = \frac{\text{原查商品基期價格}}{\text{原查商品(缺貨缺價)前1計算期價格}} \times \text{新查商品前1期計算期價格}$$

九、指數發布：

每月結束後 5 個工作日發布(如遇春節或較長連假，將酌予調整)上月物價變動新聞稿，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 Producer Price Index

1. Historical Notes

Producer Price Indices first published its data starting Jan. 2021 on Feb. 2021, with year 2019 as the base period. The indices were rebased every 2-3 years. The indices of base year of 2021 used point linking method for compilation were published on Feb. 2023, and the link period was Dec. 2022.

2. Purpose and Uses

(1) Purpose

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

(2) Uses

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

3. Priced Items

According to the structure of productions and sales in Taiwan, the PPI covers 676 items.

4. Index Classification

Producer Price Index, based on the "Statistical Classification of Industries(Rev.11 , 2021)", is divided into 4 major groups, 30 sub-groups and 79 groups, of which 4 major groups, 30 sub-groups and 78 groups are released.

5. Index Base Period

The average index for 2021=100.

6. Weights

- (1) The weights of commodities for compiling the Domestic Producer Price Index: For manufacturer, in 2021, Industrial Production Statistics, National Accounts Statistics and data provided by relative associations are referred for weighting. For non-manufacturers (Agriculture, Forestry, Fishing, Water Supply, etc.): Year books of Agriculture, Forestry, Fishing, Water Supply and Electricity are referred for weighting.
- (2) According to the monthly sales of recent 3 years moving average, the weight of

fresh vegetables and fruits are monthly varying weights.

7. Pricing

(1) Price Surveyed

The prices are reported by designated companies every month by mail or through Internet Reporting Systems, whereas prices of Agriculture, Forestry and Fishing goods are obtained from the digital transmission data dispatched by Council of Agriculture, Fisheries Agency, and Taipei Agricultural Products Marketing Corporation. Some prices of domestic sales excluding imports and export goods are directly provided by the Construction Cost Indices and the Export Price Indices surveys of DGBAS respectively.

(2) Coverage of the survey

Major manufacturers in Taiwan.

(3) Pricing criteria

The designated companies are required to report the actual selling prices of selected commodities with the same specification (in principle, price after adjustment for rebate, tax, shipment, etc.) around the 20th of the month.

8. Computation

(1) Formula: The general index and group indices are computed by the derived from of Laspeyres Weighted Aggregate Formula.

① Item price relatives

$$\frac{P_{i,j}}{P_{2022.12,j}} = \frac{\sum_o \frac{P_{i,j,o}}{P_{2022.12,j,o}} \times W_{j,o}}{\sum_o W_{j,o}}$$

② Index

$$I_{i/2021}^{2021CH} = \frac{\sum_j \frac{P_{i,j}}{P_{2022.12,j}} \times (P_{2022.12,j} \times Q_{2021,j})}{\sum_j (P_{2022.12,j} \times Q_{2021,j})} \times I_{2022.12/2021}^{2019CH}$$

i : current period

j : item

o : brand

P : price

Q :

$P_{2022.12}$: the price for December
2022

quantity

2022

$W_{j,o}$:

brand weight

$P_{2022.12,j} \times Q_{2021,j}$:	total sales volume in 2021 basket for commodity j, valued at December 2022 price
$I_{2022.12/2021}^{2019CH}$:	the price index for December 2022 with 2019 basket and 2021 as the base period
$I_{i/2021}^{2021CH}$:	the chain price index for i period with 2021 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 items

If the item of a specific brand is out of supply on market, a similar commodity bearing a different brand is priced and the adjustment should be made according to the following formula:

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

9. Publication

The monthly index is published on the 5th working day (subject to postponement due to Lunar New Year or other consecutive public holidays) after the end of the reference month in news release. 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.