

Experience in the 2021 International Comparison Program Implementation



I. Administrative Set-Up

The Prices, Income, and Expenditure Statistics Division of the Department of Statistics, Malaysia (DOSM) oversaw the operations, collected prices, and validated data for the 2021 ICP cycle. The National Accounts Statistics Division was responsible for compilation and validation of data related to the GDP. The senior deputy director from the Prices, Income, and Expenditure Division was appointed as national coordinator and was assisted by three permanent members from the Prices Unit. The principal assistant director from the National Accounts Statistics Division was appointed as the deputy national coordinator and was assisted by four permanent members from the Demand Unit.

There was no impact on the organizational structure and price collection work. Several sectors required price reviews to be conducted in 2022/2023. However, the collected prices still refer to the prices in 2021.

II. Use of Existing Infrastructure in Collecting International Comparison Program Data

Household Consumption

The field enumerators in the states were responsible for the price collection. The items in the ICP basket were divided into three categories: consumer price index (CPI), purely ICP, and conversion items (already in the CPI basket with different units). Of the 557 household consumption items in the CPI basket, 195 items—or about 35%—were used for the ICP.

The interviewers, price collectors, and field enumerators collected prices for items available in the CPI and the ICP. Similar to the 2017 cycle, prices for purely ICP items were collected from new or existing outlets using a different questionnaire. Despite an increase in collection items, the state's workforce for the ICP project employed the same price collectors and supervisors.

The states collected data from the head office using a Microsoft Excel-formatted catalog, which was translated into Malay language. The first step in the state's work process was determining the location (rural and urban). The price collector or field enumerator then visited the sites to select the outlets to be covered. The price collector or field enumerator then collected prices of items that met ICP specifications.

Construction

Construction items were obtained from various sources including from the Construction Industry Development Board, while the primary data were priced by officers of the DOSM from selected outlets in Peninsular Malaysia, Sabah, and Sarawak. The DOSM conducted two engagement sessions through meetings: (i) to inform the board regarding the items included in the ICP, and (ii) to discuss the prices and availability of items with the correct unit or specification in the market.

Machinery and Equipment

The Public Works Department provided the necessary information for machinery and equipment items, focusing on the following groups: fabricated metal products except machinery and equipment, general purpose machinery, special purpose machinery, and road transport equipment.

The DOSM was responsible for pricing the following groups: electrical and optical equipment, and other products.



Housing Rental

The DOSM ICP team used existing data from the rental survey conducted by the CPI as the main framework. From the list received, the team called respondents to obtain additional information to meet the requirements of the ICP specification.

The team also obtained additional information from various websites.

Government Compensation

Government compensation data was obtained from the Department of Public Service. The dataset contains employee salary and allowance data for all positions.

III. Survey Framework

The sampling frame was based on the Malaysian Statistical Business Register. The register will be updated based on the Census of Establishment (2023), regular surveys (such as the monthly and quarterly Establishment Survey), and other secondary sources, such as the Company Commission of Malaysia.

Outlets were covered in both urban and rural areas in Peninsular Malaysia, Sabah, and Sarawak. Analysis was confined to the zone level with the respective stratum, with six zones:

- (i) East (the states of Kelantan, Pahang, and Terengganu);
- (ii) Middle (the states of Kuala Lumpur and Selangor);
- (iii) North (the states of Kedah, Penang, Perlis, and Perak);
- (iv) South (the states of Johor, Melaka, and Negeri Sembilan);
- (v) Sabah; and
- (vi) Sarawak.

Most of the outlets—especially for the collection of household products—were based on existing CPI outlets. However, new outlets were covered for ICP items unavailable in the CPI.

Household items were priced monthly, quarterly, semi-annually, and annually. Rental data—collected semi-annually—covered the entire economy. The items for machinery and equipment and construction items were collected annually. Annual average compensation data for government occupations required for the ICP and other related indicators were collected from related government agencies.

IV. Gross Domestic Product Expenditure Values

GDP expenditure values were estimated for most of the 155 basic headings according to the 2021 ICP classification.

Individual consumption expenditure by households was estimated as follows:

- (i) GDP expenditure values for most of the 110 basic headings of individual consumption expenditure by households for 2021 were estimated. Four basic headings—narcotics, animal-drawn vehicles, combined passenger transport, and prostitution—are not applicable in Malaysia and were excluded.



- (ii) The official individual consumption expenditure by households was published annually with a 2-digit classification of individual consumption according to purpose in 12 groups.
- (iii) Data were compiled at the 4-digit level of classification of individual consumption according to purpose to estimate household consumption expenditure in the domestic market, including nonresidents' expenditure in Malaysia. Data available on an aggregated level from balance of payments statistics were used for residents' expenditure abroad and nonresidents' expenditure in the domestic market.
- (iv) Individual consumption expenditure by nonprofit institutions serving households was reported separately at the aggregated level without further breakdown.
- (v) Compilation of data was based on the Household Expenditure Survey 2019, the Economic Census 2015, the Wholesale and Retail Trade Census 2019 and quarterly surveys, manufacturing annual and quarterly surveys, and balance of payments and external trade statistics from Bank Negara Malaysia.
- (vi) The methodology of compilation used extrapolation, the commodity flow method, and direct estimates.

Gross fixed capital formation was estimated as follows:

- (i) Expenditures on GFCF at the basic headings levels for 2021 were readily available because GFCF by type of assets was compiled at the 5-digit central product classification.
- (ii) Data sources included the Economic Census 2016 for all sectors; the Wholesale and Retail Trade Census 2019 and quarterly surveys; imports; manufacturing census and annual and quarterly surveys; data from Bank Negara Malaysia, such as balance of payments statistics and external trade statistics; quarterly construction surveys; and annual financial accounts of the federal government, states, local authorities, and statutory bodies.
- (iii) The methodology of compilation used extrapolation, the commodity flow method, and direct estimates.

Government final consumption expenditures were estimated as follows:

- (i) Expenditures on government final consumption at the basic headings levels for 2021 were readily available with details, except for health services (health benefits and reimbursements).
- (ii) Data were sourced from annual financial accounts of the federal government and the financial statements and budgets for state governments, local authorities, and statutory bodies.
- (iii) The compilation methodology used direct estimates and extrapolation.

Changes in inventories and acquisitions less disposals of valuables were estimated as follows:

- (i) Data on changes in inventories and net acquisition of valuables for 2021 were readily available.
- (ii) Data were sourced from monthly manufacturing surveys, monthly rubber statistics, the Malaysia Palm Oil Board, the Quarterly Survey of Distributive Trade, the Department of Veterinary Services, and the annual financial accounts of the federal government.
- (iii) The compilation methodology used direct estimates and extrapolation.

Exports and imports were estimated as follows:

- (i) Data were sourced from balance of payments statistics and external trade statistics.
- (ii) The compilation methodology used direct estimates.



V. Data Validation and Quality Control

As in previous ICP cycles, several training courses were conducted involving representatives from all states. This was to ensure that the correct items with the proper specifications were identified and discussed. Prices from all states were submitted to the headquarters, where comparisons were made either within states or interstate. Outlier prices were identified using intraeconomy validation techniques and returned to the respective states for correction. Often, these outliers were caused by pricing the wrong item, the wrong unit, or incorrect specification. The ICP team in the headquarters compared these prices against the master list based on observations from outlets or brochures from several Kuala Lumpur and Selangor outlets. The ICP team also conducted analysis such as comparing price movements of the same or similar items within the same basic headings to CPI price movements.

Regional validation workshops were useful and helped participating economies compare their prices with those of the other economies. These workshops provided a platform for determining whether price differences were due to actual price differences between economies or caused by wrong items, units, or specifications being priced. During these price comparisons, economies could also indicate the availability of the units or specifications and make necessary changes or split items to suit the purpose.

VI. International Comparison Program Price Collection Tools

ICP data is captured by item in the ICP Asia Pacific Software Suite (ICP APSS). The DOSM ICP team suggests that the ICP Asia Pacific Software Suite (ICP APSS) to be compatible and flexible to capture data from a tablet.

The difference in formatting has slowed down data processing to a certain extent. Thus, the DOSM ICP team would like to propose adding flexibility to the ICP APSS system to allow data capture based on the outlet, which would speed up price entry. The team would also like to suggest a web-based version of ICP APSS so that the prices collected become easier and accessible for field enumerators through the tablet be generated into the ICP APSS, making the location, product, outlet, and quotation data immediately accessible by the ICP team at the headquarters in Putrajaya.

The team also suggests that the survey questionnaire to be generated by selecting the location according to basic heading, and then adding a field for the outlet's name and address. This aligns with the work process in the states, which is to find covered items in selected outlets.

VII. Challenges in the International Comparison Program Implementation

The frequency of data collection for some sectors needed to be changed due to shop closures during the Movement Control Order prompted by the coronavirus disease (COVID-19) pandemic. Data collection continued after the economy reopened in the fourth quarter of 2021.

Household Consumption

The price quotation for some items had to be changed, for example, from semi-annual to annual collection.

To ensure accurate and expedited data collection in the states, the team at the headquarters first identified items according to generic national, generic regional, and originator brands for items under pharmaceutical products. This posed a challenge for the team at the headquarters as they needed to correctly identify the brand to meet the specifications before data collection.



- (i) The detailed specifications of some items—like clothing—sometimes affected the price collection process. Price collectors had to verify that the clothing materials matched the specifications.
- (ii) This increased the time required to price the items. State offices reported that more than one hour was often needed in clothing stores to ensure that the items collected met the specifications.

Housing Rental

Obtaining unfurnished rental prices—especially for small sizes in urban areas—posed a challenge due to ICP specifications. Additionally, it is hard to find smaller-sized rented houses in rural areas.

Government Compensation

The data obtained from the agency provides sufficient information as required by the ICP.

Construction and Machinery and Equipment

Some specifications were too technical or specific, and thus present a challenge for the field enumerators and price collectors before visiting the outlets. Additionally, some items in the catalogue were difficult to obtain as some of the indicated materials, units of measurement, or brands are sometimes not available in Malaysia's market. In addition, items with specified and unspecified models may have significant price differences.

Despite the challenges due to the COVID-19 pandemic, the DOSM has implemented the best approach to meet the needs by using relevant methods and references based on available data, web-scraping, phone call interviews, and online searches.

VIII. Lessons Learned and Future Directions

The experience during the COVID-19 pandemic highlighted the need for process adjustments to ensure accurate, smooth, and consistent price collection.

The DOSM ICP team also hopes for continuous technical assistance and funding—particularly from the ICP regional implementing agency—to ensure the smooth conduct of future ICP rounds. Adopting ICP concepts for PPP compilation and computation provided new ways for Malaysia to calculate comparative indexes between states. The 2021 ICP cycle has enabled Malaysia to improve the survey framework for the 2024 ICP cycle. The specific survey form for ICP data collection was useful in ensuring that field enumerators collected price data correctly.

For the 2024 ICP cycle, the DOSM ICP team plans to provide better training for price collectors—particularly for construction—to better equip them before field or outlet visits. The team also recognizes the importance of engaging industry experts to ensure accurate pricing of items based on ICP specifications. An expansion in civil location coverage and additional outlets is planned for the next cycle.

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Annex 2: List of Members of Core International Comparison Program Team (Department of Statistics, Malaysia)

Name	Title	Responsibility
Maslina Samsudin	Senior Deputy Director, Price, Income and Expenditure Division	National Coordinator
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