Hong Kong, China

Experience in the 2021 International Comparison Program Implementation

I. Administrative Set-Up

The Census and Statistics Department (C&SD) implemented the ICP data collection in Hong Kong, China. The ICP activities were supervised by an assistant commissioner, who also served as the national coordinator for C&SD for the ICP. A senior statistician was appointed as the deputy coordinator to help the national coordinator implementing the project. A team of 10 professional and subprofessional staff from the department's Price Statistics Branch and National Income Branch was involved.

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

The ICP data collection for the household sector was integrated into the Monthly Retail Price Survey, which collects price data to compile the consumer price index (CPI) and achieve optimum efficiency and cost-effectiveness. For household consumption items covered in the CPI, relevant data were extracted directly from the CPI database, thereby avoiding duplication in pricing similar items for different programs. For items not covered in the Monthly Retail Price Survey, additional data were collected through the same survey to use the experience and product knowledge of staff engaged in the regular price survey. Additional data were collected from the same outlets covered in the CPI as much as possible to minimize the need for additional outlet recruitment and data collection efforts. Apart from data collection through the survey, further data were collected through online quotations.

Relevant data were collected from various data sources for items covered in the nonhousehold sectors, such as machinery and equipment, construction, dwelling, and government compensation. These sources included special data collection, extraction of data from existing survey returns, and administrative records to optimize resource utilization and minimize respondents' reporting burden.

III. Survey Framework

The 2021 ICP price survey for household products covered the entire territory of Hong Kong, China. For data collection of household consumption items, the team selected 1,557 outlets of different types, including department stores, supermarkets, market stalls, grocery shops, and small shops. Generally, the selected outlets operate in fixed locations on main streets in busy and accessible areas frequently patronized by households for purchasing goods and services. Price collection of household consumption items was conducted monthly, except for some health and related items, which were collected quarterly. Some educational items were collected annually.

Similar to household consumption items, price data for nonhousehold consumption items were collected throughout Hong Kong, China. Data for machinery and equipment were specifically collected from dealers and distributors.

Data collection for dwelling items was integrated into the existing survey vehicle with necessary enhancements to meet ICP data requirements. For example, housing rental data were collected from private renter households through a regular rent survey, part of a special topic enquiry in the monthly General Household Survey.

A multipronged approach was adopted for construction to collect the required price information from various data sources. For example, material prices and labor rates were anchored to the existing survey, and approximate project prices were compiled from relevant works departments and quantity surveying companies in the private sector.

Compensation data for government occupations and other related indicators were collected from administrative sources.

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IV. Gross Domestic Product Expenditure Values

GDP expenditure values were readily available for most of the basic headings. However, a few expenditure items were relatively less significant in Hong Kong, China, and detailed breakdowns were not available in the GDP compilation system. Estimates for these items were derived using comprehensive data from the 2019/20 Household Expenditure Survey and imports and re-exports statistics with detailed commodity breakdowns.

GDP expenditure values were estimated for most of the 155 basic headings according to the 2021 ICP classification. Individual consumption expenditure by nonprofit institutions serving households was reported separately in the national accounts, and the estimate for this main aggregate was submitted to the Asian Development Bank (ADB). Expenditure for net purchases abroad was included in the household consumption. Detailed estimates of capital formation, imports, and exports were generally available from the GDP compilation system based on external merchandise trade statistics, government accounts, visitor expenditure survey, annual and quarterly economic surveys, and other administrative data. Since the GDP is compiled using the expenditure approach, the statistical discrepancy is reflected in the GDP by the production approach. Since the visitor expenditure survey was suspended during the coronavirus disease (COVID-19) pandemic, data on per capita spending of visitors were not available and were estimated using a data model.

V. Data Validation and Quality Control

Before submission to ADB, the product specifications of priced items were meticulously checked to ensure they precisely matched the ICP requirements as part of a thorough validation process. The price level of individual products and the price relativity between comparable items were also examined to identify potential outliers. In performing these validations, references were made to indicators such as the coefficient of variation and the minimum-to-maximum price ratio of individual items. For some items also covered in the 2017 ICP cycle, the prices in the 2021 ICP were compared with the corresponding 2017 ICP prices for further validation. The price movements of household consumption items collected for the ICP were also compared with the price movements of similar products in the CPI to detect abnormal price changes caused by potential outliers or extraordinary events.

The validation process involved a temporal comparison of ICP and CPI price trends from 2017 to 2021. Certain discrepancies were observed in the price trends of household consumption items between the ICP and the CPI. Further studies indicated that the differences in price trends were attributable to (i) variations in item coverage between the ICP and the CPI, (ii) different weights for aggregation (i.e. GDP weights for the ICP and weights derived from the household expenditure survey for the CPI), (iii) CPI inflation affected by the government's one-off relief measures, and (iv) some quality change elements embedded from the 2017 to the 2021 ICP. With additional efforts, these studies further affirmed the ICP and CPI data quality. In light of this experience, temporal analysis will be applied as an additional diagnostic tool in future rounds of the ICP.

VI. International Comparison Program Price Collection Tools

Hong Kong, China used the price analysis module to generate summary statistics, but not the data entry module of the ICP Asia Pacific Software Suite (ICP APSS), because most data were directly collected using the computer-assisted personal interviewing system employed for regular CPI compilation. In general, the price collection tools of the ICP APSS were user-friendly and provided useful data diagnostics to alert users to potential outliers.

Hong Kong, China

Experience in the 2021 International Comparison Program Implementation

VII. Challenges in the International Comparison Program Implementation

The C&SD ICP team encountered difficulties during the preparation for data collection on machinery and equipment. Some items—particularly those categorized under the "special purpose machinery"—were not available in Hong Kong, China. Additionally, the specified models for certain items were difficult to find, but alternative models that were more popular and up-to-date were available for pricing. Since the ICP requires an exact model match for price comparison, it would be more desirable for future rounds of the ICP to include a broader range of comparable models for equipment items. As Hong Kong, China is a service-oriented economy with limited industrial production, it was challenging to find some production-related items.

Because of the COVID-19 pandemic, the data collection work for the 2021 ICP encountered significant challenges. Limited resources were available for field visits under the work-from-home arrangement, and the closure of outlets added to the difficulties. To cope with this situation, price data collected from the Monthly Retail Price Survey were incorporated as much as possible. Alternative data collection methods—such as online pricing and telephone interviews—were adopted as appropriate to replace field visits. Given this experience, similar measures will be adopted to further streamline and enhance the efficiency of data collection in future rounds of the ICP.

VIII. Lessons Learned and Future Directions

Participation in the ICP was a valuable experience as it provided a platform for statisticians to exchange experiences and views on price statistics, thereby increasing understanding of pricing surveys in other economies.

Based on the 2021 ICP experience, more price data will be collected through online quotations in future rounds of the ICP. However, ensuring the quality of online quotations is important by verifying that sufficient product information is available on websites for accurate comparison and matching of product specifications. To ensure representativeness, online prices will also be collected from popular online outlets in Hong Kong, China. During data validation, online prices will be validated and compared with quotations from other sources, such as CPI fieldwork.

While the popularity of brands or outlets may change rapidly for some items, attention will be paid to selecting suitable brands or outlets to strike a balance between the representativeness of brands or outlets and data comparability across different ICP cycles.

Regarding surveys of machinery and equipment and construction, it is considered necessary to further develop product knowledge among project team members. This will facilitate the identification and pricing of suitable products in the future. Enhancing the list of prospective firms by utilizing multiple data sources is also essential. For the 2024 ICP cycle, the team expanded the list by combining the company database, yellow pages, the cost of materials survey, and internet searches.

To allow sufficient time for identifying suitable outlets for pricing the correct product items—particularly newly introduced items—it would be helpful if the regional implementing agency could provide product catalogues for all items earlier—ideally at least 2 months before the pricing period—to facilitate preparatory work.

Prepared by the Census and Statistics Department (Gloria Ma Wai-sze and Jasmin Lee Mun-yee); edited by the ADB ICP team and Melanie Kelleher.

Annex 2: List of Members of Core International Comparison Program Team (Census and Statistics Department)

Name	Title	Responsibility
LAU Kowk-shun	Assistant Commissioner	National Coordinator
Gloria MA Wai-sze	Senior Statistician	Deputy National Coordinator
Jasmin LEE Mun-yee	Senior Statistician	Responsible for Household Consumption, Construction, Machinery and Equipment, and Housing Rental Sectors
Alfred YUEN Yiu-po	Statistician	Responsible for Gross Domestic Product, Government Compensation, and Housing Volume Sectors
Philip HONG Ting-yung	Statistician	Responsible for Gross Domestic Product, Government Compensation, and Housing Volume Sectors
Jason CHAN Chin-tang	Statistician	Responsible for Household Consumption, Construction, Machinery and Equipment, and Housing Rental Sectors
Iris LAU Po-wa	Research Manager	Responsible for Household Consumption, Construction, Machinery and Equipment, and Housing Rental Sectors