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***Monitoring the Production of Statistical Indicators for
the Development Agenda***

Hong Kong, China

National development agendas

In Hong Kong, official statistics are extensively used by the Government and the community in achieving sustainable development in various dimensions of its society. As the central statistical office of Hong Kong, the Census and Statistics Department (C&SD) is committed to providing adequate, relevant, reliable and timely statistics to facilitate research, discussion, planning and decision making within the Government and in the community. Official statistics compiled by C&SD, including statistics on population, labour, trade, national accounts, prices, etc., are widely used by the Government, business and academic sectors and the general public.

2. C&SD together with statistical units established in various Government departments and bureaux form the Government Statistical Service (GSS), representing a network for the provision of statistical services within the Government. The Commissioner for Census and Statistics is the HKSAR Government's principal adviser on all statistical matters. He/she plays an all-embracing role in matters related to the compilation of official statistics and co-ordinates the work of outposted statistical units and monitors their technical standards. Structurally, he/she is the head of Government statistical professionals, and is responsible for recruiting, training, posting and promoting the statistical professionals in C&SD and the statistical units in policy bureaux/departments which form a well-knitted network of GSS. For those departments or bureaux without statistical staff, C&SD renders professional assistance as necessary, by advising on such aspects as application of statistics and adoption of proper methods in conducting statistical surveys.

3. Over the years, C&SD has been playing the central coordinating role in the development of statistical indicators that facilitate the measurement and monitoring of the economic and social progress of Hong Kong. A case in point is the development of the statistical framework for measuring the economic and employment contribution of strategic industries of Hong Kong. The strategic industries, identified by the Hong Kong Government for promoting economic competitiveness and sustainable development, include

traditional pillar industries¹ that have been driving economic growth and creating employment, and also innovation and knowledge-based industries² in which Hong Kong enjoys clear advantages for further development.

4. Official statistics are important to the monitoring of Hong Kong's development programmes on both the social and economic front. In developing a statistical framework, we follow a user-centric approach with particular attention to engaging the stakeholders, including data users within the Government and players in the industries, in the development and the evolution of the ideas regarding the coverage, definitions, classifications, counting rules, etc. We put the same emphasis of user involvement in establishing the statistical framework of the strategic industries. We have undertaken extensive consultation with stakeholders, thus enabling us to better understand their requirements and solicit their support in instituting appropriate measures such as collecting additional data from the industries through tailor-made surveys. Indeed, consultation and discussion with relevant users and market players were most crucial in defining the statistical coverage for testing and certification services, as no international recommendations were found. In the consultation process, valuable market information was obtained for designing data collection programme and ensuring usefulness and quality of the data. For example, after extensive consultation, it was understood that medical and X-ray laboratories were an important component of the testing and certification services in Hong Kong, hence these laboratories were included in the coverage.

5. The outcome of our endeavours in producing high quality official statistics has contributed to the development and monitoring of the achievements of major policies and programmes in Hong Kong. The statistics of strategic industries, for example, have provided the essential basis for reviewing and further rolling out support measures. The statistics are also highlighted in important documents such as the Budget Speech by the Financial Secretary of Hong Kong, for monitoring the progress and achievement of our economy by the community.

6. Another important stream of official statistics is the projections, which include the population projections, labour force populations, employment projections, manpower requirement projections and household projections. C&SD compiles a set of Hong Kong

¹ Traditional pillar industries in Hong Kong (or the Four Key Industries) include (i) financial services, (ii) trading and logistics, (iii) tourism, and (iv) producer and professional services. These industries together take up about half of the Hong Kong's GDP and total employment.

² Innovation and knowledge-based industries (or the Six Industries) include (i) cultural and creative industries, (ii) medical services, (iii) education services, (iv) innovation and technology, (v) testing and certification services, and (vi) environmental industries. They have been identified by the Hong Kong Government as part of the strategic development plan to establish a more diverse economic base and promote sustainable development.

population projections every 2-3 years, to take into account the latest demographic and socio-economic developments in Hong Kong. The other series of projections then evolve based on the results of population projections. Views from relevant policy bureaux/departments in the Government, academics and prominent organisations regarding the assumptions and methodology are sought and incorporated into the projection model. Projection results are widely used by the Government in policy formulation and service provision planning, and also by the private sector in business development.

7. A noteworthy example is the Manpower Requirement Projections (MRP). The MRP results serve as an input for performing further projections of manpower requirement by occupational group and educational attainment level. An inter-departmental working group with representatives from relevant policy bureaux/departments in the Government and public organisations as members, oversees and provides steer in the exercise, whilst an inter-departmental task group oversees the professional and technical aspects. C&SD plays a key role in this project by not only sitting on the inter-departmental task force, but also providing assistance in commissioning a household survey to collect data as inputs to the projections, and chairing a task group to oversee the conduct of an establishment survey to collect views and data from employers on their current and future manpower and job skills requirements.

International standards

8. C&SD follows closely the definitions, concepts and methods on statistical matters and classification systems promulgated by international organisations such as the United Nations, International Labour Organisation and International Monetary Fund in compiling official statistics. The adoption of internationally accepted standards helps ensure a high level of quality in the statistics compiled and comparability with statistics of other economies.

9. Nevertheless, within the framework laid down by international organisations, there is sometimes a need to develop supplementary statistical frameworks to suit local situations. Over the past few decades, C&SD have undertaken major endeavours in developing supplementary statistical frameworks for measuring sectoral developments. These supplementary statistical frameworks build on the existing international standards and concepts, thus ensuring mutual coherency and consistency while providing alternative data for better meeting the specific needs concerned.

10. A recent example of supplementary statistical frameworks developed by C&SD is the statistical measurement of the innovation and technology activities, which are key impetus to productivity growth of Hong Kong. Measuring innovation and technology is

challenging, as these activities often include the creation of new ideas and knowledge internally in organisations. In other words, these activities can exist in any organisations and industries. Furthermore, unlike final products, there are no observable prices for the output of innovation activities undertaken on own account. To address these compilation issues, a special approach is applied by estimating the output of such activities as the total production costs incurred on innovation and technology activities. This special approach makes reference to the latest international guidelines for GDP, the 2008 Edition of the United Nations' System of National Accounts, for measuring the output of research and development activities.

11. The compilation of direct investment statistics is another typical example. According to international standards and practices, non-operating companies should be included and reflected in direct investment statistics for international comparison. However, massive investment flows into and out of an economy/territory in the form of "capital in transit" may lead to an overstatement of the genuine magnitude of direct investment. To facilitate analysis of direct investment of Hong Kong, C&SD developed a statistical framework to compile a supplementary set of direct investment statistics which excluded outward direct investment to non-operating companies in offshore financial centres set up by Hong Kong companies and inward direct investment which subsequently channeled back to Hong Kong from these companies from the relevant aggregate direct investment statistics. This supplementary set of statistics measures capital flows which are more directly related to real sector activities, thus helping users monitor more precisely the impact of direct investment on economic development of Hong Kong.

12. In Hong Kong, C&SD is the authority in setting and implementing the statistical standards from both the data compiler and data user perspectives. Through regular posting of staff within the C&SD headquarters and outposted units, the quality standard of statistical work across the Government is maintained and staff may interchange their roles as data compiler and data user. As a result, their horizons are broadened and their understanding of the different roles in the data compilation process is deepened. Furthermore, C&SD organises professional exchange forums from time to time to foster the culture of continuing professional development of officers in GSS. Apart from regular contacts like face-to-face meetings and interactive professional exchange forums with the statistical units concerned, C&SD also issues regular statistical publications like *Research Bulletin* to enrich the professional knowledge and expertise of professional officers and to update staff of the statistical development in particular work areas. This strongly-bonded GSS network greatly facilitates the coordination and adoption of statistical standards within the Government and in the community at large.

Microdata dissemination

13. Currently, microdata of population censuses and household surveys (namely, the General Household Survey (GHS) and Household Expenditure Survey (HES)) are only provided to Government users and academic institutions upon request for research purposes. On the other hand, for the microdata obtained from business establishment surveys, their dissemination is more restrictive in view of the sensitivities of the data involved.

14. Specifically, both 1% and 5% sample datasets are available for the recent rounds of population censuses/by-censuses. As regards the GHS, microdata pertaining to the enumerated households, in form of a general dataset containing data items that are commonly requested by users, for each calendar quarter are provided for on-site access by Government bureaux/departments and academics upon request; whereas for academic research purposes, a 20% sample of the general dataset is also made available to Government bureaux/departments and academics for off-site access upon request. As for the HES, both 10% and 20% sample datasets are available to these users for off-site access upon request.

15. All records in the micro-datasets have been thoroughly screened to ensure that particulars of individual households and persons cannot be identified. Specifically, all record identifiers (such as name and address of individual respondents) have been removed and other information has been suitably coded. Furthermore, in order to protect the confidentiality of information pertaining to individual households, the classification of some variables (e.g. type of housing, monthly household income) is suitably broadened in some situations.

16. To safeguard the proper use of the microdata, an organisation wishing to gain access to the datasets has to make an application to C&SD. Applications are considered by the top management of C&SD on a case-by-case basis, having regard to such factors as the nature of the study, data relevance and precision, and data confidentiality. If an application is approved, an undertaking form must be signed by the applicant and countersigned by the management of the organisation to which the applicant belongs. The undertaking requires the applicant and all other persons who will be involved in the project as specified on the undertaking form to comply with various conditions in accessing and using the datasets concerned.

17. Academic users are required to pay charges for using the microdata. All charges are determined on a marginal-cost recovery basis (i.e. covering only the actual manpower and computing resources consumed in extracting sample data from the full datasets and transcribing to the media of dissemination).

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