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Opportunities and Challenges Facing the Census and Statistics Department in Hong Kong

Hong Kong has been facing challenges and opportunities brought about by globalisation and economic re-structuring. The increasing trend of globalisation can be discerned from the significant growth of international movement of goods, services and capital in the global economy. This results in a growing need for more comprehensive, timely and new official statistics to measure the increasingly complex phenomenon of globalisation and assess its impacts on various socio-economic fronts.

- 2. The success in producing accurate and timely statistics from statistical surveys rests heavily on the co-operation of raw data suppliers in furnishing quality data. Maintaining high response rates is among the major challenges confronting statistical offices.
- 3. With the advancement of information and communication technology (ICT) and the growing importance of knowledge management in this knowledge-based era, applications of technology have become an integral part of data collection, processing, dissemination and sharing of corporate knowledge. Successfully managing ICT in revamping existing workflow and services is another important challenge facing each statistical office.
- 4. Over the past decade, the official statistical system of Hong Kong has continuously evolved to meet the emerging and new statistical needs, and embarked upon business transformations made possible with the continued advances in ICT to better meet the new demands more efficiently. This paper discusses the challenges faced by the Census and Statistics Department (C&SD) of Hong Kong and the strategies in addressing such challenges.

Major statistical developments in supporting policy formulation and functioning of an informed society

- 5. The Census and Statistics Department (C&SD) together with statistical units established in various policy bureaux and government departments form the Government Statistical Service (GSS). C&SD performs the role of the central statistical office and is responsible for compiling a wide range of general socio-economic statistics for use by the Government and the wider community. As regards the statistical units in various policy bureaux and government departments, they produce specific-purpose statistics supplemented by relevant general-purpose statistics for dedicated application in their respective areas of work.
- 6. Under the purview of C&SD, a comprehensive system of statistical programmes is administered to provide a wide range of official statistics on the various socio-economic conditions of Hong Kong. The following are the key areas of official statistics produced by the Department:
 - Population, demographic and other social statistics serving as the basis for gauging requirements of public services and for future planning.
 - Sectoral economic statistics monitoring the performance of individual economic sectors.
 - Labour statistics mirroring labour market conditions.
 - External trade statistics attesting the openness of the economy and reflecting the movement of goods and services.
 - Price statistics serving as the barometer of inflation (deflation) pressures.
 - National accounts statistics measuring the macro-economic structure and assessing the economic and financial relationship with the rest of the world.
- 7. C&SD has been making continued efforts in introducing suitable enhancements to relevant subject areas so as to provide timely and responsive statistical information and services to the community. The following gives a summary account of the salient statistical developments in recent years.

(a) Implementation of new statistical standards for recording goods for processing and merchanting

8. To better reflect the phenomenon of globalisation and the latest trend in international trade, new international statistical standards for recording goods for

processing and merchanting based on "change of ownership" principle are put in place. The new standards have been set out in the 2008 System of National Accounts (2008 SNA) and the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6).

- 9. Hong Kong has been actively engaged in the research and implementation of the new standards. At the start of the development work, C&SD had encountered difficulties in meeting the data requirements arising from the new statistical standards. Under the new standards, the compilation of more detailed breakdown by commodity groups of goods for processing is required. The frequency of collecting gross flow data on merchanting has to be enhanced from an annual basis to a quarterly basis.
- 10. In response to these challenges, C&SD enhanced an existing survey on trade involving outward processing in the Mainland of China. The quarterly sample size of the survey was enlarged from around 7 000 to over 25 000 trade declarations in order to provide sufficient data details required under the new standards. To cope with the new data requirements in respect of merchanting, a new quarterly survey of merchanting and other trading activities was implemented to collect quarterly data on merchanting activities.
- 11. With substantial development work in the past several years, C&SD has established the necessary statistical framework, and is prepared to implement the new standard for recording goods for processing and merchanting in 2012.

(b) Statistical analysis on six selected industries in Hong Kong

- 12. In response to the global financial tsunami, the Government of Hong Kong Special Administrative Region (HKSAR) has highlighted the economic development of six industries where Hong Kong enjoys clear advantages. The Six Industries are culture and creative industries, medical services, education services, innovation and technology, testing and certification services and environmental industries. C&SD is entrusted with the demanding task of providing relevant statistics to chart the economic contribution and employment situation of these industries.
- 13. But most of the Six Industries cannot be clearly delineated in the traditional industrial classification. For example, innovation and technology are activities that can be practiced in any industries and that they are not exactly "industries" in existing industrial classification. C&SD has therefore developed special statistical

framework to adapt to the unique situation of Hong Kong. In developing the framework, international practices were consulted, and feedbacks from stakeholders were taken into account. An example adopted in the special framework is that the output of innovation and technology activities is estimated by the total production costs incurred on these activities in different industries.

14. Furthermore, data collection programme currently run by C&SD, including the Annual Survey of Economic Activities and the Survey of Innovation Activities for measuring the Six Industries, is enhanced to fill the data gaps as far as possible. Effort is also made to identify relevant administrative data to complement the results of economic surveys.

(c) Statistical inputs to the formulation and updating of population policy

- 15. Population statistics are of vital importance to the Government for planning and policy formulation in various fields such as education, housing, medical and social services. C&SD has been providing continued statistical support in developing a comprehensive population policy for Hong Kong. In compiling the population estimates, C&SD has to cope with the challenges brought by the population changes over the years.
- 16. C&SD produces and updates a population database which furnishes the basis for compiling population estimates. Population censuses/by-censuses serve as the primary sources. Benchmark data for small geographical areas and population sub-groups such as the elderly and single parent families are readily available. The database is further supplemented and updated by administrative data (including births, deaths and passenger movement records) and social survey results (in particular labour and social statistics compiled from the General Household Survey).
- 17. For babies born in Hong Kong to women from the Mainland of China ("Mainland"), their residency patterns (i.e. whether and when they would return to Hong Kong for permanent stay) could have a considerable impact on population estimates and projections. In view of this, C&SD has mounted a regular statistical survey enquiring these parents on their intention of bringing their babies to live in Hong Kong. The survey results provide an important parameter for preparing the population projections.

(d) Statistical inputs to the formulation and updating of labour policy

- 18. In supporting the implementation of Statutory Minimum Wage (SMW) in Hong Kong, C&SD is tasked with the responsibility of producing comprehensive wage statistics for the Government in setting the initial rate of SMW and conducting subsequent reviews of its level. The statistics furnish an objective basis for the Government to determine the rate of SMW while ensuring a balance between forestalling excessively low wages and sustaining Hong Kong's economic growth and competitiveness.
- 19. To meet this mission, C&SD has implemented a new Survey on Annual Earnings and Hours Survey since 2009. Comprehensive statistics on the level and distribution of wages of all employees in Hong Kong have been released on an annual basis.

Measures for improving cooperation from data suppliers

20. Cooperation of respondents is crucial to the success of statistical surveys, both for establishment and household surveys. In recognition of this, C&SD has implemented various measures to promote respondent cooperation.

(a) Measures for establishment surveys

- 21. In order to understand if respondents encounter any major problems in data reporting, courtesy visits are regularly paid to large and prominent establishments which have been actively participating in surveys conducted by C&SD. Courtesy visits are also paid to related trade associations with a view to enlisting their assistance in encouraging their members to respond to C&SD surveys in a cooperative and timely manner.
- 22. Furthermore, a Customer Window Scheme has been implemented to facilitate data reporting by those prominent establishments. A Customer Relations Officer is arranged for each of the selected prominent establishment to coordinate all matters in relation to C&SD surveys. It serves to minimise respondent burden and ensure the consistency of the data collected.

(b) Measures for household surveys

- 23. The strengthened security of residential buildings in Hong Kong has posed difficulties to the fieldwork arrangement. It is thus crucial to seek for better cooperation with building management offices in order to facilitate field officers of C&SD getting access to the sampled quarters for fieldwork purpose. To this end, the C&SD has paid courtesy visits to related property management organisations and building management offices of residential buildings. Through the courtesy visits, mutual understanding between building management offices and C&SD has been built up.
- 24. To appeal for cooperation from household respondents, promotional leaflets and notification letters are sent to the sampled quarters before commencement of fieldwork. The purposes and importance of household survey are addressed in the promotional leaflet. Notification in advance aims at enhancing the efficiency of fieldwork.

Major information technology developments in C&SD

25. The advancement of information and communication technology (ICT) opens up new opportunities for statistical offices in reducing delivery time, providing user friendly services and expanding the channels of data dissemination. ICT advances also bring challenges in meeting increasingly sophisticated user demands. To this end, C&SD endeavours to achieve a successful ICT management in order to revamp the business process and meet the needs of users. The following outlines the major ICT developments in support to the work of C&SD.

(a) Implementation of electronic questionnaires

Given the high penetration of personal computers and the Internet in Hong Kong, there exist good potentials for C&SD to promote the use of electronic questionnaires in establishment and household surveys. Electronic questionnaire templates have been made available for all surveys conducted by C&SD. An example of the use of electronic questionnaires was the introduction of multi-modal data collection approach during the 2011 Population Census. Households were allowed to provide information by self-enumeration, including submission of electronic questionnaire. Encouraging responses had been received in the 2011

Population Census, with over half of household respondents choosing self-enumeration mode.

(b) Enhancements on dissemination of official statistics

- 27. The website of a statistical office is an efficient channel for the dissemination of official statistics. To cope with increasing demand of local and international data users, continuous enhancements have been done with the C&SD website. E-mail notification service has been introduced to enable registered users receiving their required data in a timely manner. An Interactive Data Dissemination System has been launched, allowing the users to construct customised statistical tables and charts on population and labour statistics. The navigation structure of the website has been simplified for more efficient browsing of statistical information.
- 28. The popularity of smart phones has provided further opportunity to expand the existing dissemination channels of official statistics. A new mobile version of the C&SD Website has been developed to facilitate browsing and searching of official statistics on handheld devices. The mobile version of the website aims at disseminating the key statistics in a timely manner.

(c) Development of knowledge management

29. C&SD has long recognised the importance and benefits of proper knowledge management to an organisation, which is pre-requisite for the building of corporate memory and sustaining its capacity as a learning organisation. To this end, Knowledge Management Support System (KMSS) has been established to support knowledge sharing and collaboration among colleagues. The KMSS maintains a rich database of information briefs and technical references relating to the work of the Department. The contents and functionalities of the KMSS are undergoing continuous review and enhancements to meet the latest knowledge management needs.

Looking Ahead

30. As the central statistical office of HKSAR, C&SD will continue to enhance the official statistical system, in order to cope with the challenges and opportunities arising from socio-economic changes, increasing demand from raw data suppliers and

data users, and the advancement of ICT. Apart from on-going reviews to align with international standards of official statistics, timely developments and system enhancement projects will be put in place. Furthermore, C&SD plans to strengthen the publicity measures to encourage the cooperation from survey respondents. On ICT fronts, C&SD will integrate existing stand-alone computer applications for data capturing, processing and dissemination into department-wide systems on a common platform.

- 31. Continued efforts will be made by C&SD in meeting the demand for statistical services from raw data suppliers and data users, keeping in close pace with the latest statistical practices, achieving productivity and efficiency improvements, and maintaining a knowledgeable staff force capable of creative thinking and coping with changes.
- 32. In conclusion, C&SD is fully aware of its entrusted mission of providing timely, relevant and reliable statistics to local and international users. With the support of a dedicated and qualified staff force, the Department will continue its close dialogue with international counterparts in providing a programme of statistical services that is of a world class standard.

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