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## (I) Introduction

The current Workshop focuses on the international practices in respect of the organisation and conduct of economic censuses. In a strict sense, there is no on-going full-scale economic census taking place in Hong Kong, China (to be referred to as “Hong Kong” in short in subsequent discussions).

2. Notwithstanding the above, the Census and Statistics Department<sup>1</sup> (C&SD) of Hong Kong conducts a number of statistical surveys and operates a spectrum of statistical systems for the production of adequate, relevant, reliable and timely social and economic statistics to facilitate research, discussion, planning and decision making within the Government and in the community. In particular, there is in place a well-developed *Programme of Annual Economic Surveys* (PAES) covering an extensive range of economic activities which serves to meet practically the key common functions fulfilled by a full-fledged Economic Census.

3. This paper presents the key features of PAES with an aim to supplement experience gathered from the Economic Census counterparts in other countries/territories.

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<sup>1</sup> The Government of the People’s Republic of China resumed its exercise of sovereignty over Hong Kong on 1 July 1997. On this date, the Hong Kong Special Administrative Region (HKSAR) was formed under the “One Country, Two Systems” principle. As stipulated in the Basic Law of the HKSAR, the Region would operate with a high degree of autonomy. The HKSAR maintains its separate statistical systems and continues to compile and disseminate statistical data about the HKSAR. The Census and Statistics Department, which is the central statistical authority of the HKSAR, is responsible to the Government of the HKSAR only and there is no administrative relationship between it and the corresponding departments in the mainland of China.

## (II) Why PAES ?

4. Starting from the early 1970s, economic surveys covering specific economic activities were developed in phases and progressively evolved into a survey system commonly referred to as PAES starting from the 1980s. There are currently six mandatory surveys in PAES which, together with a voluntary survey<sup>2</sup> on personal services activities, cover basically all non-government economic sectors<sup>3</sup> in Hong Kong. The PAES surveys include :

- Annual Survey of Industrial Production (ASIP)
- Annual Survey of Building, Construction and Real Estate Sectors (ASBCRE)
- Annual Survey of Wholesale, Retail and Import and Export Trades, Restaurants and Hotels (ASW)
- Annual Survey of Transport and Related Services (AST)
- Annual Survey of Storage, Communication, Financing, Insurance and Business Services (ASS)
- Annual Survey of Banks, Deposit-taking Companies, Restricted Licence Banks and Representative Offices of Foreign Banks (ASB)

5. PAES represents the core data feeding system for business operating statistics and constitutes a major source of input data for the compilation of Hong Kong's Gross Domestic Product (GDP) statistics. It also generates various economic indicators for measuring the cost structure and performance of different industries. The survey results are useful to both the Government and the private sector in formulating policies and making decisions.

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<sup>2</sup> The Annual Survey of Personal, Social and Recreational Services was launched as a voluntary survey in 1990, because only a limited number of personal services activities were covered in the survey at that time when a comprehensive frame of establishments engaged in personal services activities was not available. The survey results in the form of crude estimates at aggregate level are mainly used as one of the inputs for the compilation of Gross Domestic Product statistics .

<sup>3</sup> There is no statistical survey on agriculture, forestry and fishing sectors which are insignificant in the case of Hong Kong.

6. Examples of general uses of results from PAES include :
- i. The statistics can be used to reflect the salient operating features and performance of individual industries, and through the calculation of an extensive collection of analytical ratios, identify the more profitable lines of business; appropriate mix of factor inputs like labour, materials and fixed assets investment that yields a higher return of gross surplus; and optimum level of operation for achieving economy of scale.
  - ii. Statistics on number of establishments and level of profit margin are useful for assessing the intensity of competition in the business.
  - iii. The statistics support analyses on industrial concentration and market share position.
  - iv. Statistics on value added provide the primary parameters for assessing the contribution of various industries to the economy of Hong Kong.

7. It is also worth-mentioning that, in addition to PAES, there are also *monthly and quarterly* economic surveys conducted to provide up-to-date information to gauge the short-term economic performance trend of selected economic sectors. The following is a list of the major sub-annual economic surveys<sup>4</sup> conducted in Hong Kong :

- Quarterly Survey of Industrial Production
- Quarterly Survey of Construction Output
- Quarterly Survey of Restaurant Receipts and Purchases
- Quarterly Survey of Service Industries
- Monthly Survey of Retail Sales

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<sup>4</sup> Separately, there is a quarterly survey covering ten major economic sectors which provides statistics on business expectations. This kind of forward-looking indicator serves as useful information on the short-term outlook of the economy.

8. Statistics obtained from the sub-annual surveys are useful for :
- i. providing up-to-date indicators on the performance of an industry;
  - ii. assessing future production and market prospects based on past trends;
  - iii. identifying seasonal patterns in business operations; and
  - iv. comparing a company's own growth with the average growth of the industry.

### **(III) Planning and Organisation of PAES**

9. The various surveys under PAES are mandatory and conducted under Part III of the Census and Statistics Ordinance (Chapter 316 of the Laws of Hong Kong). They are governed by their relevant Census and Statistics orders which describe in clear and explicit terms details of the survey coverage and items of enquiry in the respective surveys. The survey orders also contain provision for protection of confidentiality of information in regard to individual companies reporting data to the statistical surveys. Only aggregate information that does not reveal details of individual establishments will be released. These provisions are important in encouraging better cooperation and willingness of the sampled establishments to supply the required data to C&SD.

10. Though still being separate annual economic surveys governed by specific survey orders, there is an in-built "programme" concept in PAES to achieve harmonisation in conceptual framework (that aligns with the GDP framework) as well as standardisation of statistical methods (e.g. sampling and estimation methods) and survey design (e.g. questionnaire design with a common format). Administratively, all PAES surveys are put under one umbrella as a key statistical survey activity of C&SD.

11. Before the commencement of each round of PAES, preparation meetings are held among subject survey professionals in C&SD to agree on the time schedule and data requirements. A formal notification will be issued to the public by the Commissioner of C&SD to mark the

commencement of a new round of PAES and appeal to the management of selected establishments to fulfill their legal and civic responsibilities by returning promptly the completed questionnaires and co-operating with officers of C&SD in the course of the surveys.

12. A common sampling frame is adopted by PAES. The various surveys select their samples from a computerised Central Register of Establishments (CRE) maintained by C&SD. CRE contains a range of information of individual establishments<sup>5</sup> in Hong Kong, including establishment name, physical address, type of business, employment size, contact information, and so on. It is updated by reference to records of the Business Registration Office of the Inland Revenue Department. Administrative records of other government departments are also made use of in maintaining the register. Feedbacks from various surveys of C&SD also play a useful role in maintaining the updatedness of CRE.

13. The “type of business” information in CRE follows the Hong Kong Standard Industrial Classification (HSIC) framework which is modeled on the United Nations’ International Standard Industrial Classification of All Economic Activities (ISIC), with local adaptation to reflect the structure of the Hong Kong economy. The first HSIC Version 1.0 introduced in 1990 and the subsequent revised HSIC Version 1.1 implemented since 2001 were based on ISIC Revision 2. Noting the importance to comply with the international standards in official statistics, in particular the latest development of ISIC Revision 4, a full-scale revision exercise on the HSIC was completed recently. A new Version 2.0 for HSIC was officially released in October 2008 with a view to bringing HSIC more up-to-date on local economic activities as well as to foster international comparability of official statistics. All surveys under PAES will adopt the HSIC Version 2.0 starting from the 2009 round.

14. For each of the surveys under PAES, the sampling frame is stratified by industry group according to HSIC and, within each industry group, by employment size. The sample size for each industry group and employment stratum is determined by Neyman’s allocation according

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<sup>5</sup> An establishment in the CRE is an economic unit which engages, under a single ownership or control, in one or predominantly one kind of economic activity at a single physical location. These establishments include commercial undertakings, semi-government organisations and non-profit making bodies (e.g. welfare and education institutions).

to a desired level of precision in terms of estimated value added for each category. Individual establishments<sup>6</sup> are systematically selected at a uniform interval after a random start. The frame and sample size of the 2007 round of five of the PAES surveys are summarised as follows:

<b>Name of survey</b>	<b>Frame size</b>	<b>Sample size</b>	<b>Sampling rate</b>
ASIP	16 300	500	3.3%
ASBCRE	34 700	1 200	3.4%
ASW	192 700	7 300	3.8%
AST	33 100	1 200	3.7%
ASS	48 500	2 600	5.4%

Since the samples are selected based on a scientific sampling method, data collected from the samples, after suitable statistical weighting, are representative of the entire population. As regards ASB, there are about 300 firms in the sampling frame and they are fully enumerated.

15. Following the major re-engineering of the survey process in the late 1990s, the fieldwork for different annual economic surveys has been centralised. The restructuring of the fieldwork organisation has strengthened co-ordination of the data collection process and enhanced operational efficiency. Suitable fieldwork strategies and productivity measures are devised and continuously implemented not only to expedite the fieldwork progress, but also to make the best use of field resources in the peak and trough periods of various surveys so as to reap the greatest benefits in the utilisation of resources.

16. As a result of the enhancement in fieldwork efficiency and introduction of other streamlining measures, more timely annual economic statistics are produced, with results of PAES surveys released within 12 months after the reference year.

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<sup>6</sup> The enquiry unit in PAES is a group of establishments in the same industry such that (i) they have the same first 8-digit of the Business Registration Number (BRN) (which normally indicates a main office-branch relationship), or (ii) they operate under the same group with the same major economic activity even though they may bear different first 8digit of BRNs and they could provide only a combined return covering all the establishments concerned. These specially formed enquiry units are called multi-location establishments.

17. It may be useful to mention further that C&SD puts great emphasis on promoting a customer-oriented culture with a view to strengthening respondents' cooperation. A Customer Relations Programme (CRP) has been in place since 1999 and is continuously enhanced to keep pace with the evolving situations and changing demand. The 2008 CRP consists of three parts :

*i. Courtesy Visit Programme*

- Professional staff pay courtesy visits to prominent companies participated in C&SD's surveys and also trade associations, aiming to understand respondents' major problems encountered in data reporting, to exchange views on possible ways for them to provide timely survey returns and to collect information on latest trade practices, as well as to enlist assistance of trade associations in encouraging their members to respond to C&SD's surveys in a timely manner.

*ii. Meet-the-Client Sessions*

- These sessions provide a forum in a friendly atmosphere for survey respondents, statistics users and C&SD officials to exchange views on the services provided by C&SD. Each session covers a brief introduction of C&SD's work, a presentation on the operating characteristics of a specific industry/theme and its recent development, discussion on the business applications of C&SD's statistics, followed by open discussion and display of various statistical publications.

*iii. Customer Window Scheme*

- Large companies are regularly selected to participate in a number of surveys owing to their economic prominence. To consolidate field contacts made by different field officers at different time and to reduce reporting burden, a single field officer is appointed to act as the Customer Relations Officer for a participating company.

#### **(IV) Data collection and data processing**

18. As mentioned in paragraph 11, data items to be collected in PAES are determined in preparation meetings among subject survey professionals. If changes to existing data schedules are simple, field officers will be requested to test out the new questions by seeking views from the respondents. However, if major changes are to be introduced, independent trial surveys of sizeable scales may be conducted to test out the options available.

19. Basically, the questionnaire design across all surveys under PAES is similar and consists of two parts covering different data items :

*i. Basic data*

- type of ownership
- origin of investment
- floor area
- employment
- compensation of employees (i.e. wages and salaries, share-based payments, and, other employee benefits)
- operating expenses
- business receipts
- capital expenditure
- other related information on business operation

*ii. Data on specific subject areas of analytical interest, e.g.*

- resources used on computer products and services
- research and development activities
- trade in services

20. Data are collected for a calendar year, or a 12-month period between 1st January of the year and 31st March of the following year. Survey questionnaires are mailed to selected establishments for completion. Electronic questionnaires are available for respondents who prefer to complete their survey questionnaires in electronic format and return them by electronic means.

21. The selected establishments can complete the questionnaires themselves and return the questionnaires by post. If they encounter difficulties, a census officer of C&SD may phone or visit them and assist in completing the questionnaires or collect completed ones. Reminder letters are issued during different stages of the survey to urge respondents to respond early. Telephone interview remains the main method of contacts used for follow-up enquiry in PAES while personal interview is also adopted as a supplementary method in view of the relatively higher costs involved.

22. Noting that some countries are making use of tax data to reduce the data collection effort, C&SD has been exploring the feasibility of adopting this option at least partially in PAES. Preliminary observations show that there are still various practical issues and constraints to be dealt with before fruitful gains can be reaped. Continuous liaison and dialogue will be maintained with the Inland Revenue Department in this regard.

23. C&SD attaches great importance to the quality of statistics it compiles. Specifically, a comprehensive quality assurance review programme is currently in place under which subject professionals are required to conduct self-assessment on the quality of statistical systems under their purview, together with a dedicated quality assurance team at departmental level established to promote, facilitate and monitor quality assurance of statistical work in various statistical systems including PAES. In operationalising the definition of “quality” in its data quality management, C&SD focuses on six dimensions of statistical products, viz. relevance, accuracy, timeliness, accessibility, comparability and coherence. A key feature of C&SD’s quality assurance mechanism is that it fully takes these dimensions into account when designing and managing its statistical systems, including PAES. Moreover, international statistical standards are followed in regard to the different statistical processes leading to the production of statistics, in particular data compilation and data dissemination. This helps ensure a definite level of quality in the statistics compiled and comparability with statistics of other economies.

## **(VI) Dissemination of PAES results**

24. Survey results of PAES are usually disseminated in the form of press releases and reports. Taking into account the increasingly pervasive international trend among official statistical offices towards making available downloadable statistical data/products free of charge and the significant benefits of free download versions (e.g. promoting statistical literacy and better informed decision making in the community), C&SD has implemented the free download policy since June 2006. Statistics users can acquire download versions of PAES reports and their back issues free of charge from the C&SD Website.

25. The PAES survey reports present the following key statistics :

- i. operating account for major industry
- ii. principal statistics (viz. number of persons engaged, compensation of employees, operating expenses, business receipts and other income)
  - by major industry
  - by number of persons engaged
  - by type of ownership
  - by business receipts and other income
  - by value added
- iii. relative standard errors and confidence intervals of selected principal statistics

Apart from the statistics published in the reports, more detailed tabulations of survey findings are also compiled by C&SD and can be provided for public consumption upon request.

26. In order to preserve the confidentiality of information relating to individual establishments, relevant individual items in the PAES reports are suppressed for data relating to small number of establishments.

27. To promote the use of PAES data, a variety of publicity measures are launched from time to time and can take the form of talks to media, publication of feature articles in statistical digests, etc. as deemed appropriate.

## **(VII) Major developments of PAES**

28. A recent significant development of PAES is the implementation of HSIC Version 2.0 starting from 2009 round of survey as mentioned in paragraph 13. A special task force involving all PAES survey professionals has been established to draw upon their expertise in ensuring the smooth transition for related survey systems. Technical, tactical and resources implications are carefully assessed and action plans drawn up accordingly. Concerted efforts are made to ensure that data needs of users are not disrupted.

29. The implementation of HSIC Version 2.0 has entailed a significant reshuffling of economic activities among different economic surveys. As a result, the existing survey orders no longer align with the new classification structures and amendments will inevitably be required. Instead of making amendments to individual survey orders, opportunity will be taken to introduce a new integrated survey order in place of the existing survey orders for individual economic surveys under PAES. This legislative change will pave the way for further integration of separate annual economic surveys into a unified survey system.

30. Primarily, the new integrated survey system will provide a common platform for the annual compilation of business operating statistics for major economic sectors. The adoption of a unified survey approach will further improve the consistency and coherence of the annual business survey data as well as the efficacy of the overall economic survey system.

31. It is also useful to point out that, as mentioned in paragraph 4, the collection of business operating data for personal services activities is currently through a voluntary survey although the same administrative arrangements and similar technical design as PAES surveys are adopted. In view of the growing importance of personal services activities, effort is being made to expand the coverage of personal service activities<sup>7</sup> and realign the data collection into a mandatory survey operation under the

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<sup>7</sup> To tie in with the implementation of HSIC Version 2.0 in late 2008, the CRE has been enhanced substantially, with a more comprehensive coverage of establishments engaged in personal services activities in the enhanced register. This is an enabling factor for the expansion of survey coverage of personal services activities.

new integrated survey system. The expansion in coverage of personal services activities, coupled with the upgrade to a mandatory survey, will enable the production of more comprehensive and reliable operating characteristics statistics for personal services activities under the same umbrella as surveys on other economic sectors. The current target is to introduce the legislative changes by the end of 2009 and launch the integrated survey system as from the reference year 2009, with fieldwork to commence in early 2010.

### **(VIII) Concluding Remarks**

32. C&SD will continue to maintain its vision in providing high-quality statistical services, contributing to the social and economic developments of Hong Kong. Every opportunity in sharing valuable experience in this regard with local and overseas counterparts, such as participation in this Workshop, will be highly treasured.

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