

Rebasing of Singapore's National Accounts to Reference Year 2005

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Introduction

The Singapore Department of Statistics (DOS) has completed the rebasing of Singapore's national accounts from base year 2000 to 2005. The estimates of constant price gross domestic product (GDP) are now expressed in terms of prices prevailing in the new base year. The rebasing exercise also reconciled the three estimates of GDP, and provided the opportunity for conceptual and methodological reviews and improvements.

This article outlines the major enhancements in concepts, methodologies and data sources undertaken in this rebasing exercise. In particular, one of the more significant improvements is the estimation and allocation of implicit charges for financial services, as recommended in the United Nations System of National Accounts, 1993 and 2008 (SNA93/ SNA08). The impact of the rebasing exercise and improvements on the major national accounts aggregates is also presented.

Rebasing and Reconciliation

Constant price GDP estimates are essentially "volume" indices, which measure changes in the volume of economic activity while maintaining relative prices constant.

Consistent with international practice, DOS has been rebasing our national accounts once every five years. The updating of the base year improves our estimates of economic growth and enhances their relevance.

The reconciliation of the three measures of GDP (output, expenditure and income), which had been derived from diverse and independent data sources, in the new base year is also an integral part of the rebasing exercise. The three estimates of GDP were reconciled on the basis of the updated 2005 input-output (I-O) tables; the process cross-validated the data sources and ensured the coherence of the three separate measures of GDP.

As such, no statistical discrepancy is recorded among the different approaches of GDP for 2005. The reconciliation, methodological and data improvements have also resulted generally in lower statistical discrepancies.

Changes and Improvements

Change in Conceptual Treatment

Implicit Charges for Financial Services

DOS has adopted the SNA93/SNA08 recommendations on the measurement and allocation of implicit charges for financial intermediation services.

Financial intermediaries (FIs) may not levy explicit charges for providing financial intermediation services, which is the channelling of funds from units with surplus funds to units with demand for funds. This is carried out via a broad range of financial instruments, including loans and deposits, and debt securities.

For financial intermediation services associated with the former, FIs charge for their services indirectly by offering lower rates of interest to their depositors and levying higher rates of interest on their borrowers. Such services are also referred to as financial intermediation services indirectly measured (FISIM). For the latter, FIs charge for their services implicitly by selling debt securities at prices higher than their estimated market values. The 'implicit' nature of the service charges necessitates the use of indirect measures to estimate their values.

DOS was previously using the methodology recommended by the United Nations System of National Accounts, 1968 (SNA68), whereby implicit service charges were estimated as net interest received from loans and other investments less interest paid on deposits. In this rebasing exercise, we have adopted the recommendations of the SNA93/SNA08 to use the "reference rate"¹ approach to measure FISIM, and to measure those implicit charges associated with debt securities based on the difference between the buying (bid) or selling (ask or offer) prices for the securities and the mid-prices.

The SNA68 treated the consumption of implicit financial services as the intermediate consumption of a nominal industry, which is then deducted from GDP. In reality, implicit financial services are provided to households and government, and non-residents as well as to businesses.

The full attribution of the implicit financial services to intermediate consumption under-estimates GDP by the amount of such services provided to and consumed by households, government and non-residents. At the industry level, the value-added is overestimated since their consumption of implicit financial services is not identified as their intermediate consumption.

¹ The reference rate represents the pure cost of borrowing funds, a rate that does not include any intermediation services. The extent to which the actual interest rate paid out on deposits is lower than the reference rate represents the 'price' of the financial intermediation services, and the reverse is true for loans. Using the implicit price, FISIM on loans and deposits can then be computed.

Recognising the deficiencies in the SNA68 concept, the SNA93/SNA08 recommended the allocation of the implicit charges for financial services to final consumption by households and the government, to exports and to the intermediate consumption of the respective industries. DOS has also implemented this recommendation in this rebasing exercise.

The impact of the implementation of the revised estimation and allocation of implicit charges for financial services on Singapore's national accounts is presented in Table 1.

TABLE 1REVISIONS TO REAL GDP GROWTH
AND NOMINAL GDP LEVELS FROM
IMPLEMENTATION OF REVISED
METHODOLOGIES FOR IMPLICIT
CHARGES FOR FINANCIAL SERVICES

Year	Revision to Nominal GDP Level (Per Cent)	Revision to Real GDP Growth (Percentage Point)
2005	2.1	0.0
2006	2.0	-0.4
2007	2.2	0.1
2008	2.0	0.1
2009	2.0	0.2

The levels of annual nominal GDP are revised upwards, by 2.0 to 2.2 per cent from 2005 to 2009. The revisions in annual real GDP growth rates are moderate, from -0.4 to 0.2 percentage point from 2006 to 2009.

In addition, with the allocation of intermediate consumption of implicit charges for financial services to the industries, FISIM is no longer shown as a separate item in the presentation of output- and income-based GDP.

Review of Classification of Government Fees and Charges

Based on the SNA93, government fees and charges are to be classified as taxes if minimal or no work is done on the part of government. payments However, that require the aovernment to provide services (ea competence, qualification or accreditation checks) in exercising its regulatory functions should be classified as purchases of services from the government rather than payments of taxes, unless the payments are markedly out of proportion to the costs of providing the services.

A review of the classification of government fees and charges was conducted as part of this rebasing exercise. Several government fees and charges (eg driving instructors' licences, massage establishment licences, petrol storage licences and medical audit and accreditation licences) have been re-classified from taxes on production to purchases of services from the government.

The re-classification has a small impact on taxes on production and government consumption expenditure (GCE), which are revised downwards by about 1 per cent and 0.5 per cent respectively for recent years.

Change in Methodology

Rental Income

Since the 1985 rebasing of the national accounts, rental income on properties for the whole economy has been recorded as part of the value-added of the business services

industry in output-based GDP, regardless of the industry classification of the lessor. Rental income was singled out then as it was relatively more prominent and distinct as a secondary activity.

However, in addition to being inconsistent with the recording of receipts from other secondary activities, this approach overstates the contribution of the business services industry.

As such, it is more appropriate to record rental income in the respective industries in output-based GDP, resulting in a downward revision in business services' share of gross value-added (GVA) and a corresponding increase in that of other industries (Table 2).

Improvement in Data Sources

Census of Construction and Census of Agriculture and Fishing

The Building and Construction Authority (BCA) conducted a Census of the Construction Industry for reference year 2005 to provide the benchmark estimate of construction value-added for the updating of the I-O tables and rebasing of the national accounts.

With the incorporation of the census results, the construction industry's value-added has been revised downwards by about \$950 million in 2005, and the share of construction in GVA has been correspondingly lowered to 3.1 per cent from 3.6 per cent before rebasing.

TABLE 2	REVISIONS TO SHARE OF GVA FROM RE-CLASSIFICATION OF
	RENTAL INCOME, 2005

	Percentage Point
	Revision to
	Share of Nominal GVA
Total	-
Goods Producing Industries	0.1
Manufacturing	0.1
Construction	0.0
Utilities	0.0
Other Goods Industries	0.0
Services Producing Industries	-0.1
Wholesale & Retail Trade	0.2
Transport & Storage	0.4
Hotels & Restaurants	0.1
Information & Communications	0.0
Financial Services	0.2
Business Services	-1.2
Other Services Industries	0.1
Ownership of Dwellings	0.0

Censuses were also conducted for the agriculture and fishing industry from 2002 to 2006. Incorporation of the data collected from these censuses has resulted in downward revisions in nominal value-added of about \$60 million to \$80 million every year from 2005 to 2009.

Updating of Classification

Singapore Standard Classification of Individual Consumption by Purpose (S-COICOP)

The classification of private consumption expenditure (PCE) has been updated to

bring it in line with the S-COICOP (Table 3). Based on the United Nations Classification of Individual Consumption by Purpose (UN COICOP), the S-COICOP is developed for use in the classification of PCE in the national accounts, as well as the classification of goods and services in the Consumer Price Index (CPI) and Household Expenditure Survey (HES).

The common classification system will facilitate analysis of PCE, CPI and HES data, as well as enhance data sharing among producers of data, especially data on consumption, prices and expenditure.

	Previous Classification		New Classification
1	Food & Non-Alcoholic Beverages	1	Food & Non-Alcoholic Beverages
2	Alcoholic Beverages & Tobacco	2	Alcoholic Beverages & Tobacco
3	Clothing & Footwear	3	Clothing & Footwear
4	Housing & Utilities	4	Housing & Utilities
5	Furnishings, Household Equipment & Routine Household Maintenance	5	Furnishings, Household Equipment & Routine Household Maintenance
6	Health	6	Health
7	Transport	7	Transport
8	Communication	8	Communication
9	Recreation & Culture	9	Recreation & Culture
10	Education	10	Education
11	Restaurants & Hotels	11	Food Serving Services
		12	Accommodation Services
12	Miscellaneous Goods & Services	13	Miscellaneous Goods & Services

TABLE 3 COMPARISON OF THE PREVIOUS AND NEW CLASSIFICATIONS OF PCE

Impact on Major Macro-Economic Aggregates

The revisions arising from the rebasing exercise are not entirely due to the reconciliation of the GDP estimates and the revaluation of the national accounts to the new base year. Revisions result also from the conceptual and methodological changes introduced as well as from improvements in data sources.

Nominal GDP

The nominal GDP estimates have been revised upwards, by between 2.7 and 3.4 per cent, over the period 2005 to 2009 (Table 4). While the nominal value-added estimates for construction, utilities, agriculture and fishing, financial services, business services and ownership of dwellings have been revised downwards, this is more than offset by upward revisions in manufacturing, wholesale and retail trade, transport and storage, information and communications and other services.

GDP Growth Rates

The revisions in real GDP growth are moderate, ranging between -0.2 and 0.7 percentage points from 2005 to 2009 (Table 5). The rebased GDP series show that the decline in economic activities in 2009 was less than previously estimated.

TABLE 5 REAL GDP GROWTH

		Per Cent
Year	Before Rebasing	After Rebasing
2005	7.6	7.4
2006	8.7	8.6
2007	8.2	8.5
2008	1.4	1.8
2009	-2.0	-1.3

Year	Before Rebasing (a)	After Rebasing (b)	Percentage Change [(b)-(a)]/(a)
	\$ Mil	lion	Per Cent
2005	201,805.1	208,763.7	3.4
2006	223,315.0	230,509.2	3.2
2007	258,563.7	266,405.1	3.0
2008	266,363.1	273,537.2	2.7
2009	257,640.4	265,057.9	2.9

TABLE 4 GDP AT CURRENT MARKET PRICES

Composition of GDP Components

Component Share by Industry

The shares of manufacturing and wholesale & retail trade have been revised upwards, while the shares of financial services, construction and ownership of dwellings have been revised downwards (Table 6).

Component Share by Expenditure

For expenditure-based GDP, the share of net exports of goods and services has been revised upwards while that of PCE has been revised downwards (Table 7). The higher share of net exports is largely attributed to the allocation of implicit charges for financial services to exports of services.

Per Cent

	20)05	2009			
	Before Rebasing	After Rebasing	Before Rebasing	After Rebasing		
Total	100.0	100.0	100.0	100.0		
Goods Producing Industries	30.9	31.7	25.9	26.3		
Manufacturing	25.6	26.8	18.2	19.5		
Construction	3.6	3.1	6.2	5.4		
Utilities	1.6	1.6	1.4	1.4		
Other Goods Industries	0.1	0.1	0.1	0.0		
Services Producing Industries	65.6	65.3	68.9	69.1		
Wholesale & Retail Trade	17.0	17.3	16.8	17.7		
Transport & Storage	10.0	10.4	8.6	8.8		
Hotels & Restaurants	1.9	2.1	1.9	2.2		
Information & Communications	4.0	4.0	3.7	3.9		
Financial Services	10.9	10.7	13.5	12.2		
Business Services	11.6	10.4	14.3	14.1		
Other Services Industries	10.2	10.3	10.0	10.2		
Ownership of Dwellings	3.5	3.1	5.3	4.6		

TABLE 6 SHARE OF NOMINAL GVA BY INDUSTRY

TABLE 7 EXPENDITURE COMPONENTS AS A PERCENTAGE OF NOMINAL GDP

				Per Cent
	20	005	20	09
	Before Rebasing	After Rebasing	Before Rebasing	After Rebasing
Private Consumption Expenditure	40.5	40.1	41.4	40.9
Government Consumption Expenditure	10.6	10.5	11.4	11.5
Gross Fixed Capital Formation	21.3	21.1	28.9	28.7
Changes in Inventories	-1.4	-1.2	-1.3	-1.5
Net Exports of Goods and Services	29.3	29.4	20.4	21.1
Statistical Discrepancy	-0.3	0.0	-0.8	-0.6

For PCE, although it has increased due to the allocation of implicit financial charges to final consumption, this has been more than offset by downward revisions to other PCE components arising from reconciliation with the 2005 I-O tables.

Component Share by Income

Previously, the full attribution of the consumption of implicit financial services as intermediate consumption had underestimated gross operating surplus (GOS) by the amount of the implicit services consumed by households, the government and nonresidents. With the allocation of the implicit charges to the other user sectors, the share of GOS in GDP has been revised upwards and the shares of compensation of employees and taxes less subsidies on production and on imports have been revised downwards correspondingly (Table 8).

Conclusion

The successful completion of this rebasing exercise improved the coherence of our GDP estimates and enhances their relevance to the underlying and changing economic conditions. The adoption of the SNA recommendations on FISIM and implicit service charges associated with the acquisition and disposal of debt securities improves the relevance of our GDP estimates in reflecting the use of implicit and indirectly measured services produced by FIs. This also enhances the international Singapore's comparability of national accounts as most national statistical offices in the European Union and OECD countries are already using the reference rate approach.

TABLE 8 INCOME COMPONENTS AS A PERCENTAGE OF NOMINAL GDP

				Per Cent		
	20	005	2009			
	Before	After	Before	After		
	Rebasing	Rebasing	Rebasing	Rebasing		
Compensation of Employees	41.6	40.2	45.7	44.2		
Gross Operating Surplus	51.1	53.6	48.7	50.1		
of Financial Corporations	5.6	5.1	8.0	5.3		
of Non-Financial Corporations	42.3	41.4	37.8	36.4		
of Others	7.7	7.1	9.4	8.4		
Less: FISIM (IBSC)	4.5	-	6.5	-		
Taxes less Subsidies on						
Production & on Imports	7.1	6.2	6.1	5.6		
Statistical Discrepancy	0.2	0.0	-0.5	0.1		

For more information, download a softcopy of the Information Paper on "Rebasing of Singapore's National Accounts to Reference Year 2005" from the Singstat website at

http://www.singstat.gov.sg/pubn/papers/economy/ip-e37.pdf

Singapore Input-Output Tables 2005

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Introduction

Input-Output (I-O) tables provide systematic and detailed information on the production activities of an economy by recording the transactions between producers and consumers in an economic system. They are primarily related to the production account in the System of National Accounts (SNA) and are made up of a set of supply and use tables and a set of symmetric tables.

To date, the Singapore Department of Statistics (DOS) has published seven sets of I-O tables for the reference years 1973, 1978, 1983, 1988, 1990, 1995 and 2000. The set of 2005 benchmark I-O tables is the latest in the series and has been used to reconcile the Gross Domestic Product (GDP) estimates by production, expenditure and income approaches in the rebasing of Singapore's National Accounts to reference year 2005.

This article explains the basic structure of the set of supply and use tables¹, and presents information on the sources and methodology used in the compilation of the 2005 benchmark I-O tables.

Basic Structure of Tables

In the Singapore I-O tables, the supply and use tables consist of three basic matrices, viz.

make matrix, absorption matrix and import matrix. These tables bring together the production, expenditure and income measures of GDP which when balanced provide a single measure of GDP, integrating the components of value-added (VA), output and final demand.

The 2005 benchmark I-O tables have been compiled based on 136 industries and 136 commodities. An industry comprises enterprises and establishments performing the same or similar kinds of economic activity while a commodity consists of goods and services of a similar nature.

The classification of industries in I-O tables is based on the 2005 Singapore Standard Industrial Classification (SSIC 2005), and the classification of commodities follows the Standard International Trade Classification, Rev. 3 (SITC Rev.3) and Harmonised Commodity Description and Coding System Nomenclature 2002 (HS 2002).

For the purpose of this paper, the supply and use tables are presented using 9 industrial sectors and commodities.

Make Matrix

The make matrix records all domestic production in Singapore, broken down by industries and commodities (Table 1). The

¹ Please refer to the publication "Singapore Input-Output Tables 2005" for a discussion on the symmetric tables and applications of I-O tables.

sum of each row gives the total output of an industry, while the sum of each column shows the total output of a particular commodity.

Primary commodities of industries are reported in the diagonal of the make matrix while the secondary commodities are reported off the diagonal. As the primary commodity output of a producing unit is related to its primary production activity which in turn determines its industry classification, the diagonal entries of the make matrix always show a higher value vis-à-vis the off-diagonal entries.

In 2005, the Singapore economy produced \$563.3 billion worth of goods and services. The services sector² accounted for 53 per cent of total domestic output and the goods sector contributed to the remaining 47 per cent.

Absorption Matrix

The absorption matrix records the commodities purchased or used by industries as intermediate inputs to current production (Table 2). In line with convention in the presentation of I-O tables, other relevant information is shown together with the absorption matrix.

To the right of the absorption matrix is the final demand matrix which records the use of commodities by final demand components such as final consumption expenditure - comprising private (FCE consumption (PCE) expenditure and government consumption expenditure (GCE)), gross capital formation (GCF - comprising gross fixed capital formation and changes in inventories), and exports of goods and services. A separate

Million Dollars

Sales by	Sales by Commodity										
Industry	Agric	Mfg	Uti	Constr	Com	Tpt/I	Fin	Biz	Oth	Output	
Agriculture	233	0	0	0	1	0	0	3	0	237	
Manufacturing	0	216,555	674	5	6,330	208	0	628	116	224,516	
Utilities	0	0	8,861	0	4	0	0	135	0	9,001	
Construction	0	0	0	29,914	55	27	0	233	0	30,230	
Commerce	0	192	0	3	69,783	997	0	4,065	521	75,562	
Transport & InfoComm	0	34	8	0	1,455	80,224	2	2,183	29	83,935	
Financial Services	0	0	0	0	91	274	44,183	581	118	45,248	
Business Services	0	0	170	0	461	212	2	42,424	34	43,303	
Other Services	0	1	0	0	798	58	0	177	50,260	51,293	
Total Output	233	216,782	9,713	29,922	78,978	82,000	44,188	50,430	51,078	563,325	

TABLE 1MAKE MATRIX

Note:

Agric = Agriculture	Constr	= Construction	Fin	= Financial Services
Mfg = Manufacturing	Com	= Commerce	Biz	= Business Services
Uti = Utilities	Tpt/I	= Transport & InfoComm	Oth	= Other Services

2 The services sector comprises commerce, transport and infocomm, financial services, business services and other services whereas the goods sector consists of the agriculture, manufacturing, utilities and construction industries.

TABLE 2 ABSORPTION MATRIX

Million Dollars

	Purchases by Industry									Total Final Demand				T -+-!	
Commodity	Agric	Mfg	Uti	Constr	Com	Tpt/I	Fin	Biz	Oth	mediate Output	FCE	GCF	Exports of G & S	Total	Output
Domestic Production	67	37,966	2,511	18,368	28,562	21,210	19,868	15,425	17,300	161,276	78,130	25,039	298,880	402,049	563,325
Agriculture	4	12	0	0	29	0	0	0	3	49	56	-1	129	184	233
Manufacturing	8	17,299	88	1,882	1,130	1,351	105	802	1,812	24,477	3,882	1,949	186,474	192,305	216,782
Utilities	7	2,500	2,042	63	776	341	98	374	880	7,082	1,615	58	958	2,631	9,713
Construction	1	289	19	12,219	32	35	17	316	784	13,711	0	15,440	771	16,211	29,922
Commerce	15	4,632	72	2,004	2,009	2,395	357	2,082	1,661	15,227	13,705	2,610	47,436	63,751	78,978
Transport & InfoComm	10	3,540	47	396	13,760	12,581	2,529	3,832	2,178	38,872	6,435	1,486	35,208	43,129	82,000
Financial Services	7	2,013	78	493	2,498	802	14,468	1,598	1,597	23,553	5,255	0	15,379	20,634	44,188
Business Services	11	6,286	112	1,115	6,757	2,692	1,939	5,651	6,041	30,604	4,426	3,496	11,903	19,826	50,430
Other Services	5	1,395	53	196	1,571	1,012	355	770	2,344	7,701	42,756	0	621	43,377	51,078
Imports of Goods & Services	59	132,968	3,572	5,586	8,339	34,317	4,675	5,015	7,838	202,370	20,092	15,037	0	35,130	237,499
Taxes on Products	1	119	73	1	32	29	52	10	96	412	7,460	1,624	0	9,084	9,496
Value-added at Basic Prices	111	53,464	2,846	6,275	38,629	28,378	20,653	22,853	26,059	199,268	0	0	0	0	199,268
Taxes on Production	3	444	159	158	358	598	100	816	785	3422	0	0	0	0	3,422
Compensation of Employees	52	15,817	407	4,517	16,173	10,661	9,398	10,705	16,209	83,939	0	0	0	0	83,939
Gross Operating Surplus	55	37,203	2,279	1,600	22,098	17,119	11,155	11,332	9,065	111,907	0	0	0	0	111,907
Total Input	237	224,516	9,001	30,230	75,562	83,935	45,248	43,303	51,293	563,325	105,683	41,700	298,880	446,263	1,009,588

GCF = Gross Capital Formation

G & S = Goods & Services

row vector on imports of goods and services below these matrices shows the amount of retained imports used as intermediate inputs or as final demand. The next row vector represents taxes on products; following which, is a matrix of gross value-added (GVA) components at basic prices.

This systematic way of presentation reveals very clearly the reconciliation of GDP by the three approaches, viz., production approach, expenditure approach and income approach (Chart 1).

CHART 1 DERIVATION OF GDP AT CURRENT MARKET PRICES

Production Approach

GDP = Output

- Intermediate Inputs

+ Taxes on Products by Final Demand

Expenditure Approach

GDP = Total Final Demand - Total Imports

Income Approach

GDP = Sum of Factor Income + Total Taxes on Products

In 2005, the intermediate inputs supplied by domestic industries aggregated to \$161.3 billion reflecting 29 per cent of total domestic production (Table 2). The services sector accounted for a larger share of 63 per cent and the goods sector, the remaining 37 per cent. The amount of goods and services imported by domestic industries for use in their production process was \$202.4 billion. with the goods sector using the bulk of the imported inputs.

Final demand components absorbed \$402.0 billion or 71 per cent of total domestic output in 2005. Exports of goods and services amounted to \$298.9 billion or 53 per cent of total domestic output, reflecting the economy's high dependency on external demand.

GVA in 2005 recorded \$199.3 billion which was about 35 per cent of total domestic output. Compensation of employees was \$83.9 billion, making up 42 per cent of GVA.

Import Matrix

Similar to the absorption matrix, the import matrix records the retained imports by commodity entering industries as intermediate inputs and the final demand sectors as consumption or capital formation; it is an expansion of the row vector of retained imports in Table 2.

Total imports of goods and services in 2005 was \$237.5 billion of which \$202.4 billion was purchased by industrial sectors as inputs for their production, with only \$35.1 billion retained for final demand.

Sources and Methodology

Data Sources

Data for compiling 2005 I-O tables are obtained primarily from surveys and censuses conducted by DOS and other government agencies (Table 3). These are further supplemented by administrative data collected by various government departments in the course of their normal operations.

Sector	Sector Description	Data Source
1	Agriculture	Census of Agriculture & Fishing Industry
2	Manufacturing	Census of Manufacturing Activities
3	Utilities	Survey of Utilities, Sewerage & Waste Management
4	Construction	Census of Construction Industry
5	Commerce	Annual Survey of Services - Wholesale Trade / Retail Trade Annual Survey of Services - Hotels & Catering
6	Transport & InfoComm	Annual Survey of Services - Transport, Information & Communications
7	Financial Services	Annual Survey of Services - Financial Services Survey of Services - Financial Institutions / Insurance Companies
8	Business Services	Annual Survey of Services - Business Services & Real Estate
9	Other Services	Annual Survey of Services - Community, Social & Personal Services/ Non-Profit Organisations
10	Exports and Imports of Goods & Services	Singapore's Merchandise Trade Statistics Survey of International Trade in Services

TABLE 3 MAIN DATA SOURCES BY SECTOR

Valuation

In the Singapore I-O tables, the valuation of all inputs and outputs is at basic price which is defined as the amount receivable by the producer from the purchaser for a unit of good or service minus any tax payable and plus any subsidy receivable on the product.

This valuation is adopted for the compilation of I-O tables as it is the most consistent valuation basis for all transactions. The trade and transport margins deducted are allocated to their own industry/commodity groups, and taxes on products are shown separately.

Treatment of Imports and Exports

Goods that are imported and then subsequently re-exported without being processed are omitted in the compilation of the Singapore I-O tables. Exports of goods are valued free on board (f.o.b.) i.e., at the prices at the domestic customs frontier before being shipped out. This is equivalent to basic prices at the border of Singapore. For imports which are valued at cost, insurance, freight (c.i.f.) at the domestic customs frontier, the basic value of the goods is shown separately from the associated freight and insurance payments in the import matrix.

Methodological Improvements

Conceptual changes are also introduced in the 2005 benchmark I-O tables following the recommendation of the SNA93/SNA08. The main improvements incorporated are the measurement of implicit charges for financial services produced by financial intermediaries or financial intermediation services indirectly measured (FISIM) and the refinement on implicit service charges associated with the transaction of debt securities³.

With the implementation of these methodological improvements, the "imputed bank service charge" (IBSC) as nominal industry in earlier I-O tables no longer exists. The IBSC column has thus been removed from the absorption matrix of the 2005 benchmark I-O tables. This is consistent with other macroeconomic statistics released by DOS.

Conclusion

Similar to the earlier I-O tables, the 2005 benchmark I-O tables have been used to derive and reconcile the three GDP estimates in the rebasing of Singapore's National Accounts to reference year 2005.

I-O tables also provide a comprehensive and integrated framework for checking the consistency of statistics obtained from different sources.

Conceptual changes and methodological improvements implemented in the 2005 benchmark I-O tables include the measurement of the implicit charges for FISIM, and refinement on implicit service charges associated with the transaction of debt securities.



Information on the applications of I-O tables, along with the complete set of the 2005 benchmark I-O tables at the detailed industry and commodity levels, can be found in the publication "Singapore Input-Output Tables 2005".

This report is available for free downloading from the Singstat website at:

http://www.singstat.gov.sg/pubn/economy/IO2005%20Tables.pdf

³ Please refer to the information paper on "Rebasing of Singapore's National Accounts to Reference Year 2005" for a more detailed discussion on FISIM.

Key Findings of Sample Household Survey 2008

By Research Section Research & Planning Department Housing and Development Board

Introduction

This article highlights the key findings, as presented in the monographs¹ and related press releases, of the Sample Household Survey (SHS) of residents living in HDB flats conducted by the Housing and Development Board (HDB) in 2008.

The SHS has been conducted by HDB on a quinquennial basis since 1968. Its research coverage was refined over time to reflect the shift in emergent and contemporary concerns related to public housing. Such five-year intervals have facilitated trend analysis as well. Trend analysis is a pertinent and valuable aspect of the SHS, as will be illustrated below in relation to some of the key findings. The continuity of the surveys is important as they provide statistical trends relating to public housing over the years.

SHS 2008, which is the ninth survey in the series, provides a more comprehensive look into the physical and social aspects of public housing in Singapore. It also includes a new topic on Social Capital, bearing witness to the greater emphasis placed on the social aspects of HDB living. As such, SHS 2008 is in line with its two key objectives, namely:

- i) To obtain the demographic and socioeconomic profile of residents and identify changing needs and expectations; and
- ii) To monitor residents' level of satisfaction with various aspects of public housing, and identify areas for improvement to the physical and social environment in HDB towns.

The information gathered is useful in providing inputs for the assessment of HDB's operations and policies.

In 2008, HDB set up a Research Advisory² Panel, chaired by Dr Aline Wong, its former Chairman. Comprising prominent academics in sociology, economics, psychology and geography, the Panel's role is to advise the HDB on critical research projects and socioeconomic studies relevant to its work. The panel was actively involved in SHS 2008, lending their expertise on the research scope and analysis of the survey findings to further enhance the utility of the findings for HDB.

The related topics in SHS 2008 were presented in four parts to provide a more comprehensive understanding of the different aspects of HDB community, namely: Profile of HDB Resident Population and Households,

¹ The monographs can be accessed online at http://www.hdb.gov.sg/, under HDB Publications. The hard copy of the monographs can also be purchased using the form from the same website.

² The panel members are Associate Professor Tan Ern Ser (National University of Singapore), Professor Phang Sock Yong (Singapore Management University), Professor Euston Quah (Nanyang Technological University), Associate Professor Chay Yue Wah (SIM University), the late Professor Ooi Giok Ling (Nanyang Technological University) (from 2008 to 2009), and Dr Lai Ah Eng (National University Singapore) (who joined the panel in 2010).

Housing Satisfaction and Preferences, Social Well-Being of HDB Communities, and Family Ties and Elderly Well-Being.

Profile of HDB Resident Population³ and Households⁴

Of the total population living in HDB flats, 96 per cent were residents (comprising 88 per cent Singapore citizens and 8 per cent permanent residents), while the remaining 4 per cent were foreigners. Between 2003 and 2008, the HDB resident population increased by 2.7 per cent to 2.9 million. During this period, the average age of the HDB resident population increased to 37 years old, from 34 years old. Further, with a longer life expectancy, the proportion of elderly residents (aged 65 years and over) increased from 7.6 per cent to 9.8 per cent.

The educational profile of the HDB resident population had also improved. The proportion of employed HDB residents with tertiary education grew from 20 per cent in 1998 to 31 per cent in 2008. Not only were more HDB residents in white-collar jobs (from 30 per cent in 1998 to 35 per cent in 2008), the average gross monthly household income from work had also risen from \$3,719 in 1998 to \$5,680 in 2008. This reflected the growing affluence of HDB households.

Housing Satisfaction and Preferences

One of HDB's key functions lies in the development and provision of public housing that meets the expectations of the people.

In line with that, the SHS 2008 surveyed the residents on their satisfaction with the physical living environment. Information on the changing preferences of the public with regard to housing serves as an important input for HDB policy reviews and for identifying areas for improvement.

High Satisfaction with Flats, Neighbourhood and Estate Facilities

Over 96 per cent of all HDB households were satisfied with their flats, and around 95 per cent were satisfied with their neighbourhoods. These findings were presented across households of different flat types, lengths of stay, tenure of flat, age groups, ethnicity, educational qualifications and household incomes. Comparisons with SHS results over the last few decades have also shown consistently high satisfaction levels, at above 90 per cent (Table 1).

TABLE 1	HOUSING SATISFACTION,
	1977 - 2008

Veer	Per Cent of Households Satisfied					
Teal	With Flat	With Neighbourhood				
1977	92.1	97.2				
1987	93.4	95.7				
1993	93.3	95.3				
1998	94.3	95.5				
2003	94.2	93.3				
2008	96.4	95.1				

The top three aspects of HDB living environment that households liked most were location (29 per cent), transportation network (12 per cent) and provision of estate

3 HDB resident population refers to Singapore citizens and permanent residents residing in HDB flats. It excludes maids and subtenants who rent rooms or the whole flat from the lessees.

⁴ A household is defined as an entire group of persons, who may or may not be related, living together in a housing unit. The household is equated with the housing unit and there is usually one household per housing unit. Subtenants or maids living in the same housing unit as the lessee(s) or registered tenants do not constitute part of the household. This definition is often known as the household-dwelling unit concept.

facilities (11 per cent). On the other hand, cleanliness and maintenance (20 per cent) and noise (17 per cent) were the two aspects residents disliked most about their housing environment.

Findings on the overall provision of estate facilities found 94 per cent of residents to be satisfied with this aspect. Comparisons with past satisfaction levels of 87 per cent in 1998 and 93 per cent in 2003 (Chart 1) showed an increase in satisfaction with the overall provision of estate facilities.





High satisfaction levels were recorded for the various categories of estate facilities, ranging from 84 per cent for transportation facilities to 97 per cent for educational facilities (Table 2). These figures suggest that the residents' basic needs were being met adequately.

Households Took Pride in their Homes

About 81 per cent of households were proud of being able to own a flat. Other reasons for making the households house-proud included location and good design/layout of their flats. Residents living in newer flats of 5 years and below also indicated higher pride levels.

TABLE 2 SATISFACTION WITH VARIOUS TYPES OF ESTATE FACILITIES, 2003 AND 2008

		-		
Types of	Per Cent of Households Satisfied			
Estate Facilities	2003	2008		
Commercial Facilities				
(i) General Retail Shops	85.6	93.3		
 - at HDB Shops/ Neighbourhood Centres 	-	89.1		
- at Shopping Centres/ Shopping Malls	-	89.9		
(ii) Markets or Market- Produce Shops/Stalls	83.6	87.5		
(iii) Eating Facilities	85.5	89.0		
Transportation Facilities	84.1	84.1		
Sports Facilities	81.8	85.2		
Recreational & Leisure Facilities	86.3	89.1		
Precinct Facilities	288.5	88.7		
Community Facilities	J 88.5	94.3		
Educational Facilities	96.0	96.5		
Health/Medical Facilities	87.8	90.1		
Financial Facilities	80.7	85.5		
Overall Satisfaction	93.4	94.4		

Majority Found HDB Flats Value for Money

Appreciation in flat value, good location, proximity to facilities and affordability were the main reasons for 86 per cent of residents who considered their flats to be worth the money spent. In particular, residents in newer blocks (i.e. 5 years and below) and older flats (i.e. 21 years and over) were more likely to feel that their homes were value for money due to flat location, price appreciation or potential for high resale value.

More had Upgraded

Married household heads' average length of residence in their previous housing units increased from 8.7 years in 1998 to 10 years in 2008. Among households who indicated at least one change in residence since the marriage of the household heads, 70 per cent had upgraded from smaller to bigger flats or moved from rental to purchased flats. This was an increase from the corresponding proportion of 66 per cent who had upgraded in 2003. Those who upgraded cited reasons such as preference for bigger flats or increase in family size or income.

Social Well-Being of HDB Communities

The SHS 2008 findings showed high levels of social capital, community bonding and satisfaction with personal well-being among HDB residents and affirmed the presence of active and cohesive communities in public housing.

Healthy Levels of Social Capital among Residents

Social capital refers to the accumulation of people's trust, confidence, and shared relationships with each other in both formal (e.g. community and government agencies) and informal (e.g. family, relatives, friends, neighbours) settings. Residents surveyed were found to have extensive informal networks with healthy levels of mutual trust, reciprocity, and confidence in institutions (Table 3).

Almost All Residents Felt a Sense of Belonging

HDB residents' sense of belonging remained high between 2003 and 2008. In 2008, 99

Components of Social Capital	Average Score ⁵ (Scale: 0-10)
Trust in informal & generalised network - trust in family, relatives and friends (including colleagues) and other generalised relationships	6.4
Reciprocity in informal & generalised network - willingness among residents to help one another in their informal and generalised networks	6.6
Confidence in institutions - ability to leverage on formal institutions to get things done	6.8
Size of informal networks - the average number whom the residents had in their social circle	61 persons

5 To compute the scores for "Trust in informal & generalised network", "Reciprocity in informal & generalised network" and "Confidence in institutions", residents were asked to give a score, ranging from zero (representing no trust/reciprocity/ confidence) to ten (representing complete trust/reciprocity/confidence). These scores indicate the extent of trust they would place on family members; relatives and friends; the extent of their willingness to help each other out in times of need; and the extent of confidence they had for formal institutions, respectively. per cent of residents developed a sense of belonging to the estate/town they lived in, higher as compared to 90 per cent in 2003. In general, residents' sense of belonging increases with their length of residence in the estate/town, which shows that the HDB living experience remains a point of emotional reference for residents (Table 4).

TABLE 4HDB RESIDENTS' SENSE OF BELONGING
TO TOWN/ESTATE BY LENGTH OF
RESIDENCE, 2003 AND 2008

	Per Cent of Households		
Length of Residence (Years)	2003	2008	
Less than 2	81.9	98.1	
2 - <5	86.3	97.5	
5 - <10	90.3	98.6	
10 and over	96.3	99.1	

Increased Participation in Community Activities

There had also been a sustained increase in participation rates of residents in community activities from 13 per cent in 1998, to 29 per cent in 2003 and 40 per cent in 2008. This increase could be attributed to continued efforts of community agencies in encouraging active participation among residents. For example, HDB organizes welcome parties for residents to facilitate the seamless settlement into newly completed projects.

High Interaction Levels among Neighbours

A high proportion (97 per cent) of residents engaged in some form of neighbourly interactions in 2008 (Chart 2). Compared to 2003, there was an increasing trend of

CHART 2 TYPES OF NEIGHBOURLY INTERACTION, 2003 AND 2008



residents going beyond mere exchange of greetings, towards more intense forms of neighbourly interaction e.g. casual conversations, exchange food/gifts on special occasions.

In addition, residents' networks exhibited the presence of diversity, with more than three quarters of the residents interacting with neighbours of other ethnic groups or nationalities.

Family Ties and Elderly Well-Being

The SHS 2008 provides pertinent insights into social issues such as the extent of familial support and the depth of interaction. Family ties are viewed from two perspectives - younger married residents' ties with their parents and parents' ties with their married children. Younger married residents are defined as those aged between 21 and 54 years while older residents are those aged 55 years and over.

More Children Living Close to their Parents

More married children lived together or within the same estate as their parents (36 per cent) in 2008 compared to 29 per cent a decade ago (Table 5).

Family Ties Remained Strong

Family ties had remained strong over the past decade, with 91 per cent of older residents receiving visits or visiting their married children at least once a month (Chart 3). About 91 per cent of married residents visited their parents at least once a month in 2008. In particular, 18 per cent of married residents paid daily visits to their parents.

The most common activities engaged in during these visits included having meals together, exchanging suggestions and advice about personal problems, as well as going on outings together.

Physical Living Arrangement		1998	2003	2008
Together or within the same estate		29.3	31.4	35.5
In the same flat	-	10.7	11.2	14.0
Next door		1.2	1.2	0.6
In the same blo	ck	1.8	2.1	2.1
In a nearby block		7.2	6.1	9.0
In the same estate		8.4	10.8	9.8
In a nearby estate		23.2	21.2	16.9
Elsewhere in Singapore		45.4	44.7	45.1
Short-term stay with different children		2.1	1.4	1.2
Each parent staying at a different place		-	1.3	1.3
Total	%	100.0	100.0	100.0
ιυιαι	Number	318,556	335,129	* 303,846*

TABLE 5YOUNGER MARRIED RESIDENTS' PRESENT PHYSICAL LIVING
VIS-À-VIS THEIR PARENTS, 1998 - 2008

* Excluding non-response cases

CHART 3 FREQUENCY OF VISITS (A) BETWEEN OLDER RESIDENTS AND THEIR MARRIED CHILDREN, AND (B) FROM YOUNGER MARRIED RESIDENTS TO THEIR PARENTS, 1998 - 2008



Residents Well Taken Care of by Family Members

About 80 per cent of older residents received financial support from their married children in 2008, up from 51 per cent in 1987. A large proportion (94 per cent) also had family members to take care of them when they fell ill. Family ties are strong as demonstrated by the high levels of trust and willingness to help each other among family members.

Overall, more than 9 in 10 younger married residents and older residents felt that family life was important and were satisfied with theirs in 2008 (Chart 4). These results were comparable to findings in 2003.



CHART 4 IMPORTANCE AND SATISFACTION WITH FAMILY LIFE AMONG HDB HOUSEHOLDS, 2003 AND 2008

Elderly Active in Engaging their Communities

Over 90 per cent of the elderly households⁶ engaged in exchanging greetings or casual conversations with their neighbours (Chart 5). Almost all (99.5 per cent) felt a sense of belonging to their estate, up from 90 per cent in 1998. Their sense of community remained strong, with a score of 72.5 out of 100. The elderly households were also active in community activities in 2008, with 47 per cent engaging in these activities in the last 12 months compared to 17 per cent a decade ago (Table 6). A majority of them carry out their lifestyle activities outside their homes, such as eating out and leisure shopping, with only 6.7 per cent engaging solely in home-based activities.







Community Participation		1998		2003		2008	
		Elderly	All	Elderly	All	Elderly	All
Yes		16.8	13.2	40.7	38.0	46.9	45.3
No		83.2	86.8	59.3	62.0	53.1	54.7
Takal	%	100.0	100.0	100.0	100.0	100.0	100.0
iotal	Number*	67,015	728,815	66,503	817,530	92,870	866,026

* Excluding non-response cases

6 An elderly household refers to a household in which the head (i.e. lessee or registered tenant) is aged 65 years and over.

More Elderly Planned Financially for Their Old Age Needs

About 55 per cent of the elderly planned financially for their old age needs in 2008, up from 49 per cent in 2003. Almost all (99.6 per cent) had at least one financial source as compared to 80 per cent in 2003. Their main financial sources were money from children, personal savings, and CPF savings (Chart 6). About 81 per cent felt that their sources of income were sufficient to meet their daily expenses. Those who felt otherwise were concerned with the high cost of living and cost of healthcare.

CHART 6 FINANCIAL SOURCES FOR ELDERLY TO MEET OLD AGE NEEDS, 2008



Note Elderly residents were asked to identify one or more current sources of income from a list of possible financial sources to meet their old age needs.

Most Elderly Satisfied with their Physical Living Environment

Over 97 per cent of the elderly expressed satisfaction with their flats, and neighbourhood (Chart 7). More than 95 per cent were satisfied with the provision of estate facilities. About 94 per cent viewed their flats as being value for money and 83 per cent were proud of their home. The majority were content with their current flat type, and had no intention to move within the next five years.

CHART 7 SATISFACTION WITH FLAT AND NEIGHBOURHOOD AMONG ELDERLY, 2003 AND 2008



Conclusion

The large-scale SHS serves as an important tool for observing ground sentiments and feedback. Not only does the SHS investigate tangible issues such as satisfaction with the physical built environment and related opinions on pride and aspirations, it also looks into the social issues concerning social capital, community bonding and state of health of families and the elderly. Further, combined with the historical continuity of the data, the results remained crucial in determining the pulse of pertinent issues in society that HDB plays a role in moulding.

Formation and Cessation of Companies and Businesses, January - June 2010

Companies

14,940 companies were formed in the first half of 2010. This represented a 17 per cent growth over the 12,800 that were formed a year ago. Higher company formations were noted in most major with industries, significant increases observed in the real estate (74 per cent) and financial & insurance (63 per cent) industries. On the other hand, yearon-year declines in company formation were recorded for arts, entertainment, recreation & other activities service per cent) and (20 the transportation & storage industry (1.1 per cent).

There were 7,790 company cessations in 1H10, 31 per cent lower than the 11,280 recorded in 1H09. The significant year-on-year drop was due mainly to the Accounting and Corporate Regulatory Authority (ACRA) conducting a review of defunct companies and taking action to strike these companies off its register of companies during 2009.



CHART 1 FORMATION AND CESSATION OF COMPANIES

Businesses

Formation of businesses decreased 15 per cent, from 14,340 in 1H09 to 12,190 in 1H10. Most major industries reported a decline in business formations, in particular, real estate activities (40 per cent), professional, scientific & technical activities (35 per cent), administrative & support services activities (18 per cent) and accommodation & food service activities (15 per cent). In contrast, the financial & insurance industry recorded an increase of 28 per cent in business formation.

Business cessations in 1H10 also declined 4.1% over 1H09. Lower business cessations were recorded in industries such as manufacturing (10 per cent), arts, entertainment, recreation & other service activities (7.6 per cent) and wholesale & retail trade (7.3 per cent). On the other hand, higher business cessations were recorded in the financial & insurance (17 per cent), education, health & social services (15 per cent) and real estate (6.7 per cent) industries.

CHART 2 FORMATION AND CESSATION OF BUSINESSES



Geographic Distribution of the Singapore Resident Population

Introduction

This article provides, in map form, basic demographic characteristics of the Singapore resident population by their registered place of address from the Census of Population 2010. The Singapore resident population comprises Singapore citizens and permanent residents.

The geographical areas presented in this article refer to the planning areas for the physical development of Singapore as demarcated in the Urban Redevelopment Authority's Master Plan 2008. Data on the resident population by geographic areas used in this article can be found in the detailed statistical tables of the Advance Census Release 2010. Statistical information contained in the release are obtained from administrative sources.

Additional information not available from any administrative sources are collected from a sample enumeration of households in the Census 2010. These include marriage and fertility, education and languages, religion, household and housing, and transport. The sample survey was conducted from March to September 2010 and has been completed. The Department of Statistics is currently verifying and processing the survey returns. More detailed tables and analyses will be published progressively in a series of Statistical Releases on specific topics.

Resident Population

Of the 3.77 million Singapore residents as at end-June 2010, about 57 per cent were concentrated in ten planning areas. There were five planning areas with more than 200,000 Singapore residents (Chart 1). Bedok, Jurong West and Tampines each had more than 250,000 Singapore residents, with Bedok having the most number at 294,500 in 2010. The other two planning areas with more than 200,000 Singapore residents in 2010 were Woodlands (245,100) and Hougang (216,700).

Elderly Resident Population

Older estates generally have larger elderly populations. There were three planning areas with more than 20,000 elderly residents aged 65 years and over as at end-June 2010 (Chart 2). Bedok had the largest population of elderly residents with 31,600, followed by Bukit Merah (24,000) and Ang Mo Kio (21,400).

Children Aged Below 15 years

In contrast, relatively newer estates had larger populations of children aged below 15 years. There were two planning areas with more than 50,000 children aged below 15 years in 2010, namely Woodlands (53,700) and Jurong West (51,400) (Chart 3). Bedok and Tampines also had relatively large number of children aged below 15 years, with each area having 40,000 to 50,000 children.

HDB Flat Dwellers

An estimated 3.11 million Singapore residents were staying in HDB flats in 2010, accounting for 82 per cent of Singapore residents. In 2010, there were ten planning areas where at least 90 per cent of Singapore residents were staying in HDB flats (Chart 4). The proportion of HDB dwellers was highest in Punggol followed by Woodlands.



Note: Published map is based on URA's Master Plan 2008 planning area boundaries and SLA's 2010 Singapore island profile. The Master Plan 2008 is a forward looking land use plan to guide Singapore's development in the medium term over the next 10 to 15 years and the planning boundaries may not coincide with existing developments for some areas.



CHART 2 RESIDENT POPULATION AGED 65 YEARS AND OVER BY PLANNING AREA, JUNE 2010

Note: Published map is based on URA's Master Plan 2008 planning area boundaries and SLA's 2010 Singapore island profile. The Master Plan 2008 is a forward looking land use plan to guide Singapore's development in the medium term over the next 10 to 15 years and the planning boundaries may not coincide with existing developments for some areas.



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Performance of the Services Sector for Reference Year 2008

In 2008, there were 148,600 establishments in the services sector, employing a total of 1,282,700 workers. The main industries in the services sector are: wholesale and retail trade, transport and storage, accommodation and food & beverage services, information and communications, financial- and insurancerelated services¹, real estate and business services, as well as community, social and personal services².

The key indicators of the services sector are provided in the table below. More information on the performance of the services sectors is available from the series of seven reports on the Annual Survey of Services 2008, which were released progressively between November 2009 and March 2010. The first six reports focus on several services industries namely:

- Food and Beverage Services
- Health Services
- Information and Communications Services
- Retail Trade
- Transport and Storage Services
- Wholesale Trade

The final consolidated report, "*The Services Sector*" provides a comprehensive performance review of the services sector.

Softcopies of these reports are available for free access via the SingStat website at http://www.singstat.gov.sg.

Industry	No. of Establish- ments	No. of Workers Employed	Operating Receipts	Operating Expenditure	Operating Surplus	Value Added
	('00	00)		(S\$ Bill	ion)	
Wholesale and Retail Trade	55.9	376.1	1,420.2	1,396.6	25.4	44.1
Transport and Storage Services	9.7	137.7	83.1	73.0	15.6	23.2
Accommodation and Food & Beverage Services	6.3	112.3	9.6	8.2	1.8	4.3
Information and Communications	6.8	73.9	31.0	28.2	4.3	9.5
Financial- and Insurance-Related Services	9.5	30.3	66.2	24.9	41.6	8.4
Real Estate and Business Services	35.0	319.9	73.7	62.1	15.5	32.4
Community, Social and Personal Services	25.5	232.5	21.5	24.3	3.1	13.3
The Services Sector	148.6	1,282.7	1,705.2	1,617.4	107.2	135.2

Source: Economic Surveys Series 2008 - The Services Sector Note: Figures may not add up to total due to rounding.

1 Excludes institutions under the purview of the Monetary Authority of Singapore, viz. banks and finance, securities and insurance companies.

2 Excludes public administration activities.

Overseas Visitors

The Singapore Department of Statistics welcomed visitors from Australia, Ethiopia, Vietnam, the Organisation for Economic Co-operation and Development (OECD), as well as the World Bank over the last six months. The visits provided an excellent platform for professional exchanges and sharing.

Topics discussed included preparation and dissemination of economic statistics, estimation methodologies of input-output tables, and statistical disclosure control techniques for microdata and tabular outputs. Overviews on the Singapore's Statistical System, business register, compilation of business statistics and producer price indices, and statistics on trade in services were presented.

OECD

- Directorate for Science, Technology and Industry
 - Norihiko Yaman Administrator
 - Meng Bo IDE-JETRO Research Fellow, Economic Analysis and Statistics Division

World Bank

- International Comparison Programme
 - Jim Meikle

Australia

- Australian Bureau of Statistics
 - Melissa Gare
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Ethiopia

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The Advance Census Release is the first release of data from the Census of Population 2010. It presents the key trends in population size, growth, demographic profile and broad geographic distribution of the Singapore population as at end-June 2010, compiled using administrative records from multiple sources. The report includes detailed statistical tables to enable more comprehensive study by users. The report can be downloaded from

http://www.singstat.gov.sg/pubn/ census2010.html

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The *Statistics Singapore Newsletter* is issued half-yearly by the Singapore Department of Statistics.

It aims to provide readers with news of recent research and survey findings. It also serves as a vehicle to inform readers of the latest statistical activities in the Singapore statistical service.

Contributions and comments from readers are welcomed.

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