

information paper
on
economic statistics

**REBASING OF
SINGAPORE'S NATIONAL ACCOUNTS
TO REFERENCE YEAR 2010**

Singapore Department of Statistics
May 2014

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REBASING OF SINGAPORE'S NATIONAL ACCOUNTS TO REFERENCE YEAR 2010

I INTRODUCTION

1 The Singapore Department of Statistics (DOS) has completed the rebasing of Singapore's national accounts from base year 2005 to 2010. The estimates of constant price gross domestic product (GDP) will now be expressed in terms of prices prevailing in the new base year. The rebasing exercise also reconciles the three estimates of GDP from the production, expenditure and income approaches¹, and provides the opportunity for conceptual and methodological reviews and improvements. The estimates of economic growth will be reported on the basis of the rebased series with effect from the Economic Survey of Singapore for 1st Quarter 2014.

2 This paper presents the major enhancements in concepts, methodologies and data sources undertaken in this rebasing exercise. In particular, one of the significant improvements in this rebasing exercise is the adoption of the recommendation in the United Nations System of National Accounts 2008² (2008 SNA), to capitalise research and development (R&D) expenditure in the national accounts. The impact of the rebasing exercise on major national accounts aggregates is also presented and discussed.

II REBASING AND RECONCILIATION

3 Changes in current price or nominal GDP reflect the changes in the total value of goods and services produced in the economy. These changes result from two effects: (i) price effects or changes in prices; and (ii) quantity effects or changes in the volume of economic activity.

4 The assessment of economic growth requires the removal of the price effect, or equivalently, the compilation of GDP at constant prices. Changes in constant price GDP are often referred to as real GDP growth. Constant price GDP estimates are essentially volume indices, which measure changes in the volume of economic activity while maintaining relative prices constant. However, over time, prices of goods and services change. As a result, the relative price weights of the base year become less representative over time. It is

¹ The technical details on the reconciliation of GDP from the production, expenditure and income approaches are presented in the publication "Rebasing of Singapore's National Accounts to Reference Year 2005".

² The SNA is the conceptual framework that sets the international statistical standard for the compilation of macro-economic statistics for analysing the performance of an economy. It is published jointly by the United Nations, the European Commission, the Organisation for Economic Co-operation and Development, the International Monetary Fund, and the World Bank Group. The latest 2008 SNA was released in 2009.

necessary therefore to periodically rebase the national accounts, that is to say, change the relative base-year price weights to a more recent reference year.

5 Rebasing ensures the continuing relevance of real GDP growth estimates. While the rebasing will generally result in revisions to real GDP growth rates subsequent to the base year, improvements and changes to underlying concepts, methodologies and data sources would also result in revisions to GDP even prior to the new base year.

6 In addition to the revaluation of the national accounts estimates, the rebasing exercise also reconciles the estimates of GDP compiled independently using the three approaches (output, expenditure and income). The three GDP estimates are reconciled on the basis of the updated 2010 supply and use tables³ (SUT), in the process cross-validating the data sources and ensuring the coherence of the three separate measures of GDP. As such, no statistical discrepancy is recorded among the different approaches of GDP for 2010. The reconciliation, methodological and data improvements have also resulted generally in lower statistical discrepancies in recent years.

III CHANGES AND IMPROVEMENTS

7 Other than the rebasing and reconciliation of GDP estimates, conceptual changes, methodological improvements, data revisions and improvements as well as revisions/updating of statistical classifications are often introduced during the rebasing exercise. The revisions in our national accounts estimates during the rebasing exercise serve to better reflect the underlying and changing economic conditions.

8 The improvements and changes carried out in this rebasing exercise can be grouped into the following categories:

- (a) Change in conceptual treatment
- (b) Refinement in methodology
- (c) Improvement in data sources

³ The supply and use tables are primarily related to the production accounts in the SNA. They provide systematic detailed information on production activities of an economy by recording transactions between producers and consumers in an economic system. In addition, they also make available a framework for checking the consistency of data on flows of goods and services obtained from different data sources, and are used to derive and reconcile the three approaches to GDP.

(A) Change in Conceptual Treatment

Capitalisation of R&D Expenditure

9 R&D plays a vital role in driving innovation and technological advancement in an economy. It is an important contributor to future economic growth. In the latest 2008 SNA, R&D was explicitly recognised as an (intangible) asset. As a result, R&D expenditure is being treated as gross fixed capital formation (GFCF), instead of intermediate consumption (IC) in Singapore's national accounts with effect from this rebasing exercise. The new treatment recognises the contribution of R&D to future productive capacity.

10 R&D is defined as creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and use of this stock of knowledge to devise new applications (2008 SNA, paragraph 10.103). R&D includes basic research, applied research and experimental development.

11 Conceptually, the value of R&D should be determined in terms of the economic benefits it is expected to provide in the future. In practice, as most R&D is undertaken and used for internal production, the conventional approach is to value R&D on the basis of its cost of production. Data from the national R&D survey conducted by the Agency for Science, Technology and Research (A*STAR) is used to estimate the value of R&D activities in Singapore.

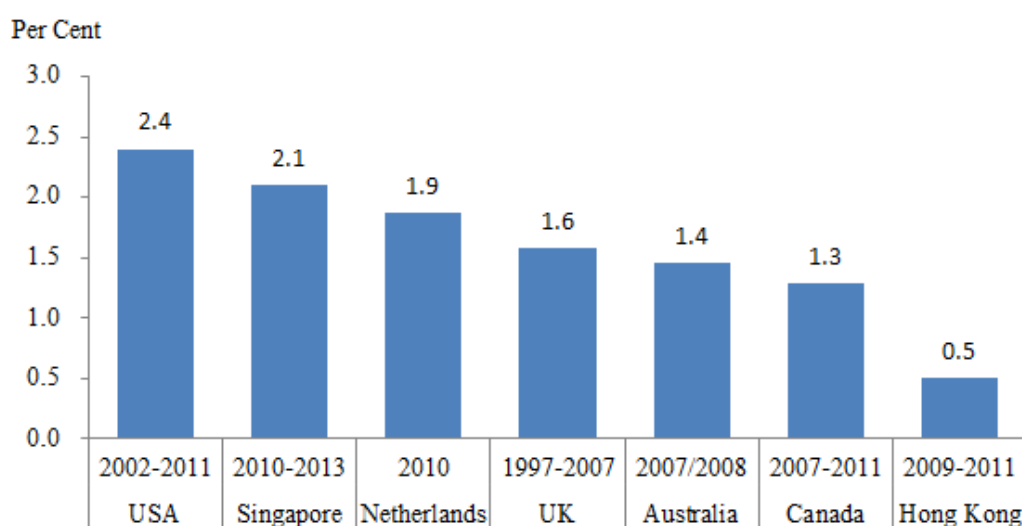
12 The recognition of R&D expenditure as investment will raise the level of nominal GDP. From the production and income approaches of GDP, nominal gross value-added (GVA) and gross operating surplus (GOS) will be revised upwards as a result of the change in treatment of R&D expenditure from IC to capital formation. From the expenditure approach of GDP, GFCF will be raised correspondingly as a result of the addition of R&D expenditure as part of capital formation.

13 The impact of capitalising R&D expenditure on Singapore's national accounts is presented below. The levels of annual nominal GDP are revised upwards, by 2.1 to 2.2 per cent from 2010 to 2013 (Table 1). The revisions are comparable to those experienced by other economies such as the Netherlands and USA (Chart 1). In general, the impact of capitalising R&D expenditure on GDP could vary considerably across economies, depending on the size of their R&D investment or R&D intensity.

TABLE 1 REVISION TO NOMINAL GDP LEVEL FROM THE CAPITALISATION OF R&D EXPENDITURE

Year	Revision to Nominal GDP Level (Per Cent)
2010	2.2
2011	2.1
2012	2.1
2013	2.1

CHART 1 IMPACT OF R&D CAPITALISATION ON NOMINAL GDP LEVELS IN SELECTED ECONOMIES



Source: Various official sources

14 Several economies such as Australia, Hong Kong, Canada, and the USA have also capitalised R&D expenditure in their national accounts. The capitalisation of R&D expenditure in Singapore’s national accounts will therefore bring our national accounting framework in line with the practices of other economies and improve the international comparability of our GDP estimates. With the recognition of R&D assets, the presentation of GFCF in the national accounts will also be refined to reflect a new asset category - Intellectual Property Products – comprising R&D and software⁴ investment (Table 2).

⁴ Software expenditure was already capitalised in the previous round of rebasing exercise for reference year 2000. The technical details are presented in the publication “Rebasing of Singapore’s National Accounts to Reference Year 2000”.

TABLE 2 COMPARISON OF THE PREVIOUS AND NEW FORMATS FOR PRESENTING GROSS FIXED CAPITAL FORMATION

Previous Format	New Format
Total	Total
Construction & Works	Construction & Works
Residential Buildings	Residential Buildings
Non-residential Buildings	Non-residential Buildings
Other Construction & Works	Other Construction & Works
Transport Equipment	Transport Equipment
Machinery, Equipment & Software	Machinery & Equipment
	Intellectual Property Products

Employers Pension Scheme

15 The SNA recommends that employers' pension contributions, made on behalf of their employees, should be recognised as part of compensation of employees⁵ (CoE) in national accounts. According to the SNA, employment-related pension contributions are considered as part of the compensation package received by employees for the work they do.

16 In Singapore's context, private pension schemes are relatively rare due to mandatory employers' Central Provident Fund (CPF) contributions for citizens and permanent residents (PRs). Hence, the conceptual review for this rebasing exercise focuses on government pension/savings and retirement schemes. The impact of incorporating government pension contributions on overall CoE is minimal. At the overall economy, CoE is revised upwards marginally, by about 0.2 per cent for years 2010 to 2013. Correspondingly, its impact on the value-added at the overall economy is also relatively insignificant.

(B) Refinement in Methodology

Informal Sector

17 The informal sector refers to self-employed individuals who engage in production activities and are not included in business surveys, for example hawkers, taxi drivers, real estate agents, remisiers, freelance tutors and

⁵ CoE refers to the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period. It comprises wages and salaries in cash, employers' CPF contributions and benefits in kind.

babysitters. New categories of self-employed workers such as sports coaches are also identified to align with the changing consumption habits in Singapore.

18 The methodologies used to estimate the value-added of this group of self-employed individuals have been reviewed and refined in this rebasing exercise. The value-added of the informal sector have been benchmarked against the Censuses of Population, General Household Surveys, Labour Force Surveys and other administrative sources, and are measured by the production approach where possible, i.e. first estimating output and IC, and deriving value-added by subtracting IC from output. The income approach may also be used, where average gross earnings and number of persons employed from surveys are used to estimate their value-added. The informal sector contributed 1.6 per cent to nominal GDP in 2010.

(C) Improvement in Data Sources

Census of Construction

19 The Building and Construction Authority (BCA) conducted a Census of the Construction Industry for reference year 2010 to provide the benchmark estimate of construction value-added for the updating of the SUT and rebasing of the national accounts. With the incorporation of the census results, the construction industry's value-added has been revised upwards by about \$1.6 billion in 2010. The share of construction in GVA has been correspondingly raised to 4.7 per cent (after rebasing) from 4.2 per cent (before rebasing).

IV IMPACT ON MAJOR MACRO-ECONOMIC AGGREGATES

20 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. As explained above, revisions also result from the conceptual and methodological changes introduced as well as from improvements and updates in data sources.

(A) Nominal GDP and GNI

21 Nominal GDP estimates have been revised upwards, by 0.6 to 1.3 per cent over the period 2010 to 2013 (Table 3). While nominal value-added estimates for manufacturing, construction, wholesale and retail trade, business services and other services industries have been revised upwards, these are partially offset by downward revisions in transportation and storage, accommodation and food services, information and communications, finance and insurance, and ownership of dwellings.

TABLE 3 GDP AT CURRENT MARKET PRICES

Year	Before Rebasing (a)	After Rebasing (b)	Percentage Change [(b) – (a)] / (a)
	\$ Million		Per Cent
2010	318,096.0	322,361.1	1.3
2011	342,512.6	344,712.4	0.6
2012	355,281.2	358,542.6	0.9
2013	370,064.5	372,813.9	0.7

22 The changes in nominal GDP have resulted in corresponding changes to nominal gross national income (GNI) and per capita GNI. As shown in Table 4, nominal per capita GNI has been revised upwards, by 0.6 to 1.3 per cent from 2010 to 2013.

TABLE 4 PER CAPITA GNI AT CURRENT MARKET PRICES

Year	Before Rebasing (a)	After Rebasing (b)	Percentage Change [(b) – (a)] / (a)
	\$		Per Cent
2010	62,297	63,137	1.3
2011	65,122	65,545	0.6
2012	65,301	65,889	0.9
2013	66,928	67,385	0.7

(B) Composition of GDP Components

Component Share by Industry

23 Table 5 shows the industries' relative shares of GVA before and after rebasing for years 2010 and 2013.

TABLE 5 SHARE OF NOMINAL GVA BY INDUSTRY

	Per Cent			
	2010		2013	
	Before Rebasing	After Rebasing	Before Rebasing	After Rebasing
Total	100.0	100.0	100.0	100.0
Goods Producing Industries	27.3	27.7	24.5	25.1
Manufacturing	21.5	21.4	18.6	18.8
Construction	4.2	4.7	4.4	4.9
Utilities	1.6	1.6	1.5	1.4
Services Producing Industries	68.8	68.5	70.6	70.3
Wholesale & Retail Trade	19.1	19.2	18.2	18.5
Transportation & Storage	8.5	8.4	7.0	6.9
Accommodation & Food Services	2.2	1.9	2.5	2.2
Information & Communications	3.7	3.6	4.0	3.9
Finance & Insurance	11.2	10.9	12.2	11.9
Business Services	13.8	13.8	15.6	15.4
Other Services Industries	10.4	10.7	11.1	11.4
Ownership of Dwellings	3.9	3.8	4.9	4.5

24 The relative shares in GVA of the industries have been updated arising from the rebasing exercise. The GVA shares of manufacturing, wholesale and retail trade, and other services industries have been revised upwards to 18.8 per cent, 18.5 per cent and 11.4 per cent respectively in 2013 (Charts 2, 3 and 4).

CHART 2 SHARE OF MANUFACTURING IN NOMINAL GVA

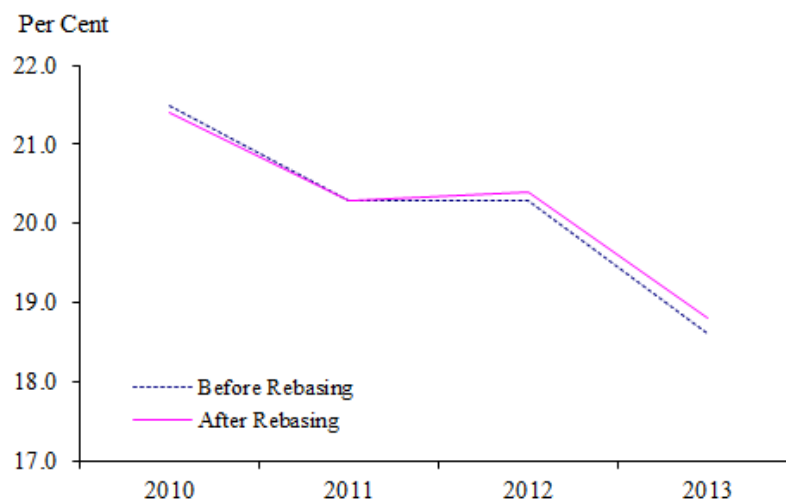


CHART 3 SHARE OF WHOLESALE AND RETAIL TRADE IN NOMINAL GVA

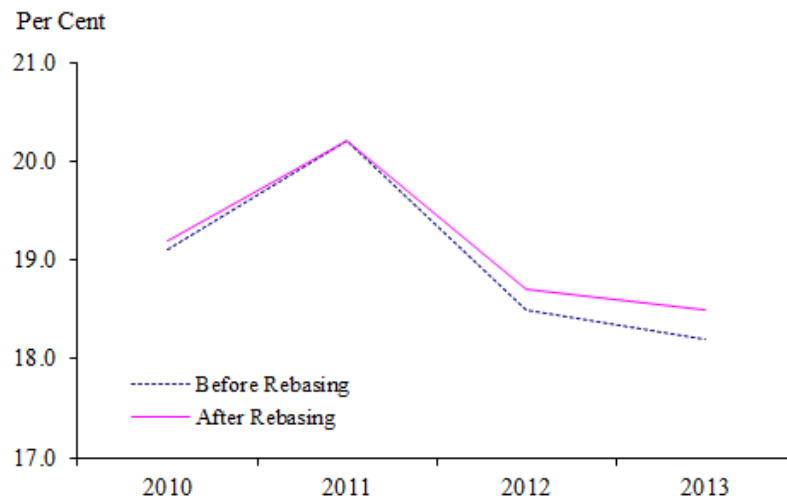
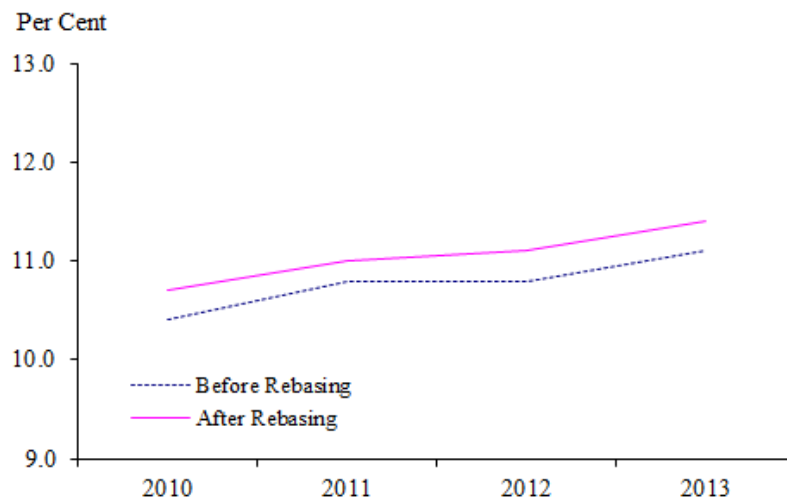
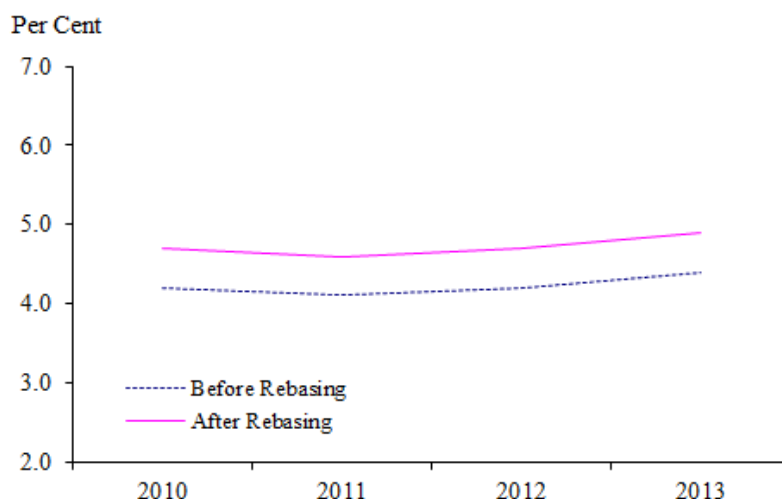


CHART 4 SHARE OF OTHER SERVICES INDUSTRIES IN NOMINAL GVA



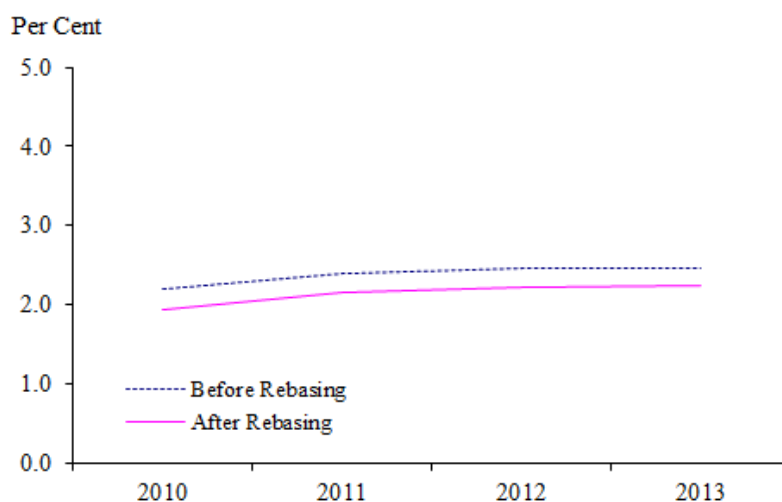
25 With the incorporation of the results from the Census of the Construction Industry 2010, the share of construction in GVA has been revised upwards, to 4.7 per cent (after rebasing) from 4.2 per cent (before rebasing) in 2010 and to 4.9 per cent (after rebasing) from 4.4 per cent (before rebasing) in 2013 (Chart 5).

CHART 5 SHARE OF CONSTRUCTION IN NOMINAL GVA



26 On the other hand, the GVA share of accommodation and food services has been revised downwards, to 1.9 per cent (after rebasing) from 2.2 per cent (before rebasing) in 2010 and to 2.2 per cent (after rebasing) from 2.5 per cent (before rebasing) in 2013 (Chart 6). The revisions are mainly due to the refinement of methodology for hawkers, with the availability of more updated information.

CHART 6 SHARE OF ACCOMMODATION AND FOOD SERVICES IN NOMINAL GVA



Component Share by Expenditure

27 In terms of the expenditure components of GDP, the relative shares of private consumption expenditure (PCE), government consumption expenditure (GCE), GFCF, changes in inventories and net exports of goods and services have also been revised (Table 6). In particular, the share of GFCF has been revised upwards by 2.3 to 2.5 percentage points from 2010 to 2013 as a result of the

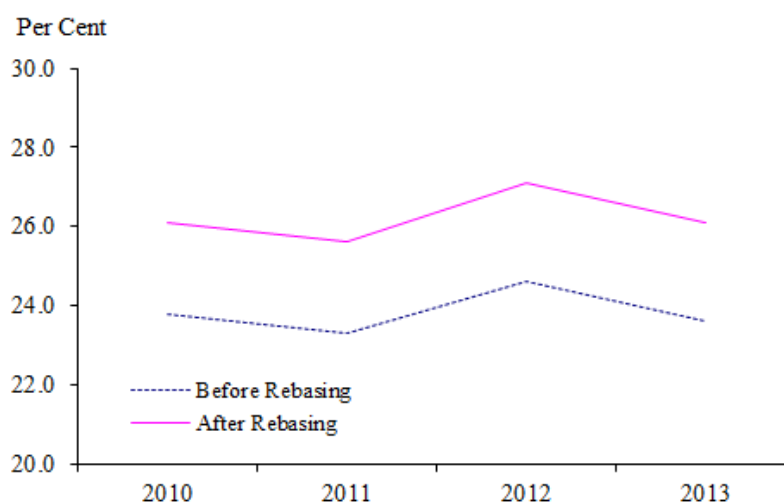
inclusion of R&D expenditure in capital formation. The share of GFCF has increased by 2.5 percentage points, from 23.6 per cent (before rebasing) to 26.1 per cent (after rebasing) for reference year 2013 (Chart 7).

TABLE 6 EXPENDITURE COMPONENTS AS A PERCENTAGE OF NOMINAL GDP

	Per Cent			
	2010		2013	
	Before Rebasing	After Rebasing	Before Rebasing	After Rebasing
Private Consumption Expenditure	37.6	35.5	39.2	37.3
Government Consumption Expenditure	10.5	10.2	10.5	10.3
Gross Fixed Capital Formation	23.8	26.1	23.6	26.1
Changes in Inventories	-0.4	1.7	3.2	3.2
Net Exports of Goods and Services	28.5	26.4	23.5	23.2

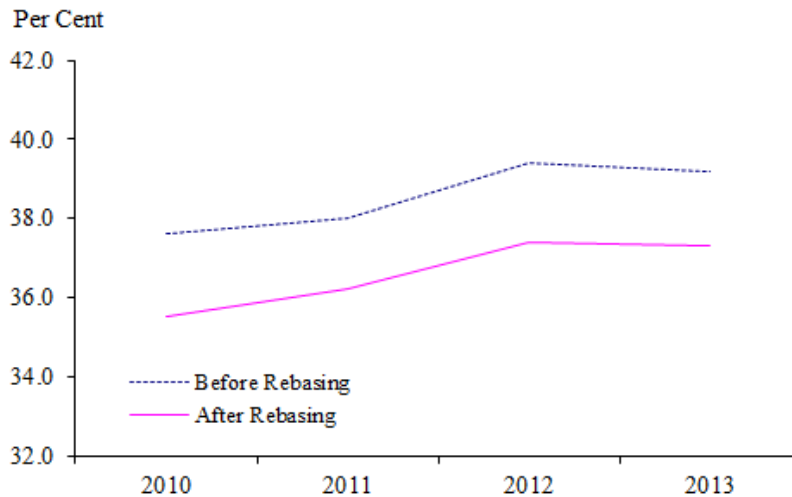
Figures are expressed as a share of expenditure-based GDP

CHART 7 GFCF AS A PERCENTAGE OF NOMINAL GDP



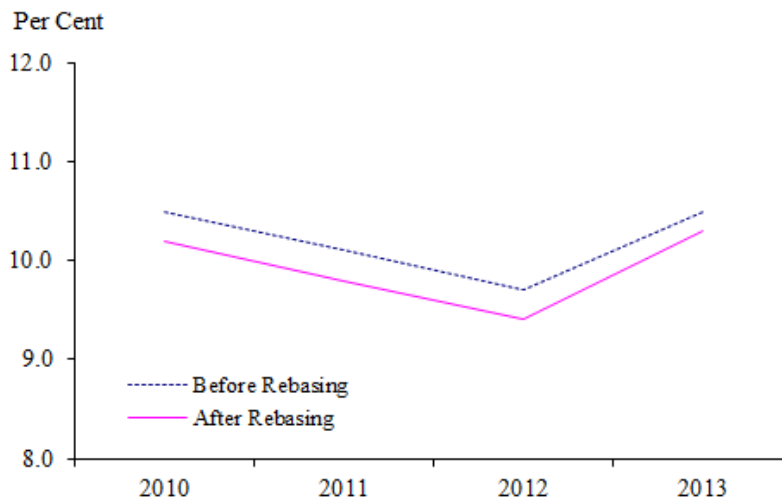
28 The share of PCE, on the other hand, has been revised downwards by 1.8 to 2.1 percentage points from 2010 to 2013 (Chart 8).

CHART 8 PCE AS A PERCENTAGE OF NOMINAL GDP



29 The share of GCE has been revised downwards slightly, by 0.2 to 0.3 percentage points from 2010 to 2013 (Chart 9). The nominal estimates of GCE have generally been revised downwards in this rebasing exercise as a result of the reclassification of government R&D expenditure to capital formation. The downward revisions to GCE are, however, partially offset by upward revisions to government's CoE attributed to the addition of government pension contribution.

CHART 9 GCE AS A PERCENTAGE OF NOMINAL GDP



Component Share by Income

30 Likewise, the current price income-based GDP estimates have been benchmarked and reconciled. Table 7 below shows the revisions to the income components as a share of nominal GDP for 2010 and 2013. For reference year 2013, the shares of CoE and taxes less subsidies on production and on imports

(TSPI) have been revised downwards by 1.4 and 0.2 percentage points respectively. Correspondingly, the share of GOS has increased by 1.6 percentage points, to 50.8 per cent (after rebasing) from 49.2 per cent (before rebasing) in 2013.

TABLE 7 INCOME COMPONENTS AS A PERCENTAGE OF NOMINAL GDP

	Per Cent			
	2010		2013	
	Before Rebasing	After Rebasing	Before Rebasing	After Rebasing
Compensation of Employees	40.6	39.1	42.5	41.1
Gross Operating Surplus	52.3	54.0	49.2	50.8
Taxes less Subsidies on Production & on Imports	7.1	6.9	8.3	8.1

Figures are expressed as a share of income-based GDP

31 For this rebasing exercise, the share of CoE at the overall economy has generally been revised downwards while that of GOS has been correspondingly revised upwards. For example, the share of CoE has been revised downwards by 1.1 to 1.5 percentage points from 2010 to 2013 while that of GOS has been revised upwards by 1.3 to 1.7 percentage points over the same period (Charts 10 and 11).

CHART 10 CoE AS A PERCENTAGE OF NOMINAL GDP

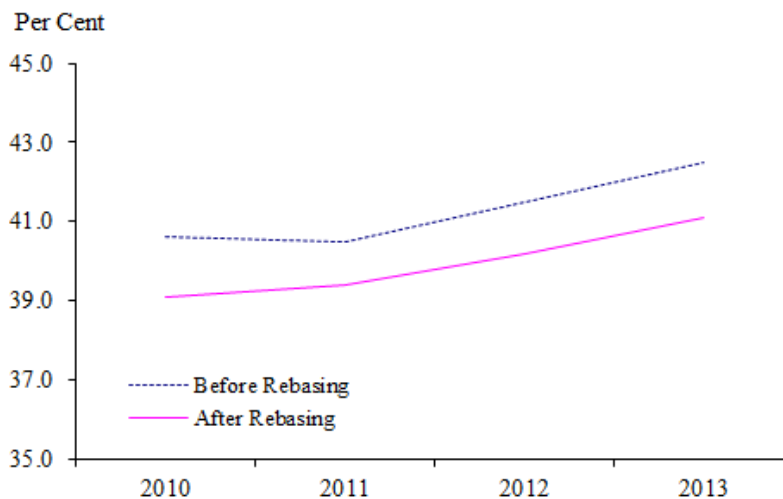
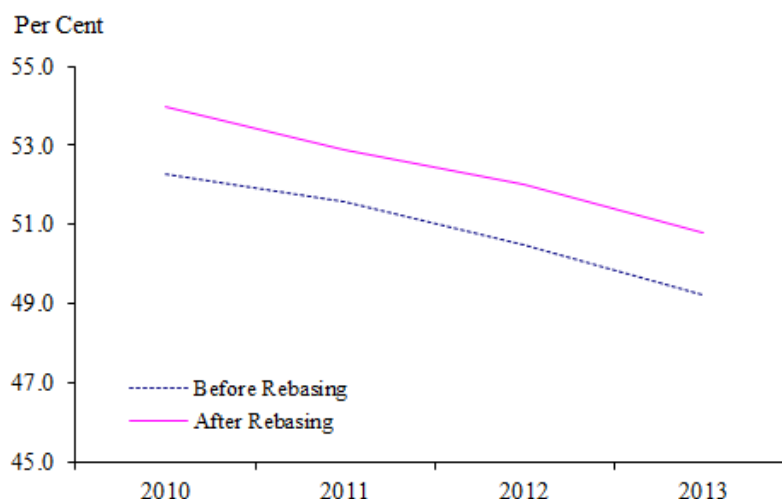


CHART 11 GOS AS A PERCENTAGE OF NOMINAL GDP



(C) GDP Growth Rates

32 The revisions in real GDP growth are moderate, ranging between -0.2 and 0.6 percentage points from 2010 to 2013 (Table 8).

TABLE 8 REAL GDP GROWTH

Year	Per Cent	
	Before Rebasing	After Rebasing
2010	15.1	15.2
2011	6.0	6.1
2012	1.9	2.5
2013	4.1	3.9

33 Revisions in the growth rates of the individual industries show a greater variation than that of the overall economy, particularly for construction, wholesale and retail trade, and information and communications. Mainly due to rebasing changes and improvement in data sources, annual growth of construction has been revised by -0.6 to 3.6 percentage points from 2010 to 2013. Similarly for wholesale and retail trade, annual growth has been revised by -0.2 to 2.0 percentage points from 2010 to 2013. Growth of information and communications has been revised by -1.2 to 2.1 percentage points from 2010 to 2013.

IV CONCLUSION

34 The successful completion of this rebasing exercise improves the coherence and reliability of our GDP estimates and enhances its relevance to the underlying and changing economic conditions. The adoption of the SNA recommendation on capitalisation of R&D expenditure, together with the continuing improvement in methodologies and data sources, also enhances the relevance and international comparability of our GDP estimates.

35 Nominal GDP estimates have been revised upwards, by 0.6 to 1.3 per cent over the period 2010 to 2013, following the improvements in conceptual treatment, methodologies and data sources. The revisions in real GDP growth are moderate, ranging from -0.2 to 0.6 percentage points from 2010 to 2013.

SINGAPORE DEPARTMENT OF STATISTICS
20 MAY 2014

Statistical Appendix

Table A1	Annual Changes in Real Gross Domestic Product
Table A2	Contribution to Growth in Real Gross Domestic Product
Table A3	Share of Gross Value-added at Current Prices
Table A4	Expenditure Components as a Percentage of Nominal Gross Domestic Product
Table A5	Income Components as a Percentage of Nominal Gross Domestic Product
Table A6	Compensation of Employees as a Percentage of Nominal Industry Gross Value-added (Wage Share)
Table A7	Gross Operating Surplus as a Percentage of Nominal Industry Gross Value-added (Profit Share)
Table A8	Other Taxes Less Subsidies on Production as a Percentage of Nominal Industry Gross Value-added

TABLE A1 ANNUAL CHANGES IN REAL GROSS DOMESTIC PRODUCT

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
TOTAL	15.1	6.0	1.9	4.1
Goods Producing Industries	24.8	7.3	1.4	2.2
Manufacturing	29.7	7.8	0.3	1.7
Construction	3.9	5.6	8.6	5.9
Utilities	7.7	3.5	3.4	2.7
Other Goods Industries ¹	8.3	3.2	1.9	-3.7
Services Producing Industries	11.5	5.9	2.0	5.3
Wholesale & Retail Trade	16.1	5.2	-1.4	5.0
Transportation & Storage	6.1	4.1	3.4	3.0
Accommodation & Food Services	14.5	9.5	2.3	3.0
Information & Communications	8.1	5.7	6.2	5.5
Finance & Insurance	11.8	8.6	1.3	10.6
Business Services	7.9	5.0	5.9	5.1
Other Services Industries	14.2	6.0	1.3	1.9
Ownership of Dwellings	-0.3	0.1	0.7	1.3
Add : Taxes on Products	11.3	0.5	4.3	0.7
	After Rebasing			
TOTAL	15.2	6.1	2.5	3.9
Goods Producing Industries	25.2	7.0	1.8	2.5
Manufacturing	29.7	7.8	0.3	1.7
Construction	7.5	4.9	8.6	6.1
Utilities	8.0	1.9	2.0	2.2
Other Goods Industries ¹	2.4	3.8	1.2	-2.3
Services Producing Industries	11.7	6.7	2.8	5.3
Wholesale & Retail Trade	15.9	7.1	-0.1	6.1
Transportation & Storage	6.0	5.3	5.2	3.2
Accommodation & Food Services	14.5	10.8	2.3	4.5
Information & Communications	7.9	7.8	6.0	4.3
Finance & Insurance	12.3	9.1	1.8	10.8
Business Services	9.0	5.5	5.5	4.3
Other Services Industries	13.8	4.7	2.6	1.9
Ownership of Dwellings	1.2	1.2	2.7	2.3
Add : Taxes on Products	5.1	-2.1	2.8	-7.0

1 Comprise Agriculture, Fishing and Quarrying.

TABLE A2 CONTRIBUTION TO GROWTH IN REAL GROSS DOMESTIC PRODUCT

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
TOTAL	15.1	6.0	1.9	4.1
Goods Producing Industries	7.2	2.3	0.5	0.7
Manufacturing	6.9	2.0	0.1	0.4
Construction	0.2	0.2	0.3	0.2
Utilities	0.1	0.0	0.0	0.0
Other Goods Industries ¹	0.0	0.0	0.0	0.0
Services Producing Industries	7.4	3.7	1.3	3.3
Wholesale & Retail Trade	2.6	0.8	-0.2	0.8
Transportation & Storage	0.6	0.3	0.3	0.3
Accommodation & Food Services	0.3	0.2	0.0	0.1
Information & Communications	0.3	0.2	0.2	0.2
Finance & Insurance	1.4	1.0	0.1	1.2
Business Services	1.0	0.6	0.7	0.6
Other Services Industries	1.3	0.6	0.1	0.2
Ownership of Dwellings	0.0	0.0	0.0	0.0
Add : Taxes on Products	0.5	0.0	0.2	0.0
	After Rebasing			
TOTAL	15.2	6.1	2.5	3.9
Goods Producing Industries	7.6	1.8	0.5	0.6
Manufacturing	7.1	1.6	0.1	0.3
Construction	0.3	0.2	0.4	0.3
Utilities	0.1	0.0	0.0	0.0
Other Goods Industries ¹	0.0	0.0	0.0	0.0
Services Producing Industries	7.4	4.3	1.8	3.5
Wholesale & Retail Trade	2.6	1.3	0.0	1.1
Transportation & Storage	0.5	0.4	0.4	0.3
Accommodation & Food Services	0.3	0.2	0.0	0.1
Information & Communications	0.3	0.3	0.2	0.2
Finance & Insurance	1.3	0.9	0.2	1.1
Business Services	1.1	0.7	0.7	0.6
Other Services Industries	1.3	0.5	0.3	0.2
Ownership of Dwellings	0.0	0.0	0.1	0.1
Add : Taxes on Products	0.2	-0.1	0.1	-0.4

¹ Comprise Agriculture, Fishing and Quarrying.

TABLE A3 SHARE OF GROSS VALUE-ADDED AT CURRENT PRICES

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Goods Producing Industries	27.3	25.9	26.1	24.5
Manufacturing	21.5	20.3	20.3	18.6
Construction	4.2	4.1	4.2	4.4
Utilities	1.6	1.6	1.6	1.5
Other Goods Industries ¹	0.0	0.0	0.0	0.0
Services Producing Industries	68.8	69.6	69.1	70.6
Wholesale & Retail Trade	19.1	20.2	18.5	18.2
Transportation & Storage	8.5	6.9	7.1	7.0
Accommodation & Food Services	2.2	2.4	2.5	2.5
Information & Communications	3.7	3.8	4.0	4.0
Finance & Insurance	11.2	11.2	11.4	12.2
Business Services	13.8	14.3	15.0	15.6
Other Services Industries	10.4	10.8	10.8	11.1
Ownership of Dwellings	3.9	4.4	4.7	4.9
	After Rebasing			
Goods Producing Industries	27.7	26.4	26.7	25.1
Manufacturing	21.4	20.3	20.4	18.8
Construction	4.7	4.6	4.7	4.9
Utilities	1.6	1.6	1.5	1.4
Other Goods Industries ¹	0.0	0.0	0.0	0.0
Services Producing Industries	68.5	69.3	68.9	70.3
Wholesale & Retail Trade	19.2	20.2	18.7	18.5
Transportation & Storage	8.4	6.9	7.0	6.9
Accommodation & Food Services	1.9	2.2	2.2	2.2
Information & Communications	3.6	3.8	3.9	3.9
Finance & Insurance	10.9	10.9	11.1	11.9
Business Services	13.8	14.3	14.9	15.4
Other Services Industries	10.7	11.0	11.1	11.4
Ownership of Dwellings	3.8	4.3	4.4	4.5

¹ Comprise Agriculture, Fishing and Quarrying.

TABLE A4 EXPENDITURE COMPONENTS AS A PERCENTAGE OF
NOMINAL GROSS DOMESTIC PRODUCT

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Private Consumption Expenditure	37.6	38.0	39.4	39.2
Government Consumption Expenditure	10.5	10.1	9.7	10.5
Gross Fixed Capital Formation	23.8	23.3	24.6	23.6
Changes in Inventories	-0.4	1.4	3.5	3.2
Net Exports of Goods & Services	28.5	27.3	22.8	23.5
	After Rebasing			
Private Consumption Expenditure	35.5	36.2	37.4	37.3
Government Consumption Expenditure	10.2	9.8	9.4	10.3
Gross Fixed Capital Formation	26.1	25.6	27.1	26.1
Changes in Inventories	1.7	1.8	3.5	3.2
Net Exports of Goods & Services	26.4	26.6	22.6	23.2

Figures are expressed as a share of expenditure-based GDP

TABLE A5 INCOME COMPONENTS AS A PERCENTAGE OF
NOMINAL GROSS DOMESTIC PRODUCT

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Compensation of Employees	40.6	40.5	41.5	42.5
Gross Operating Surplus	52.3	51.6	50.5	49.2
Taxes less Subsidies on Production & on Imports	7.1	7.9	8.0	8.3
	After Rebasing			
Compensation of Employees	39.1	39.4	40.2	41.1
Gross Operating Surplus	54.0	52.9	52.0	50.8
Taxes less Subsidies on Production & on Imports	6.9	7.7	7.8	8.1

Figures are expressed as a share of income-based GDP

TABLE A6 COMPENSATION OF EMPLOYEES AS A PERCENTAGE OF
NOMINAL INDUSTRY GROSS VALUE-ADDED (WAGE SHARE)

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Manufacturing	32.1	33.3	33.2	35.9
Construction	73.0	71.6	69.3	67.8
Utilities	21.0	19.9	20.9	22.4
Other Goods Industries ¹	51.3	51.9	53.1	53.3
Wholesale & Retail Trade	34.2	32.1	36.4	38.2
Transportation & Storage	34.2	41.5	41.7	42.9
Accommodation & Food Services	55.9	53.3	54.0	55.0
Information & Communications	56.0	54.6	55.9	55.5
Finance & Insurance	50.1	52.6	51.9	49.4
Business Services	45.6	43.3	43.8	43.9
Other Services Industries	78.0	76.1	77.4	79.0
	After Rebasing			
Manufacturing	31.5	32.6	32.2	34.8
Construction	55.8	57.1	57.3	56.5
Utilities	20.9	19.9	21.3	23.5
Other Goods Industries ¹	50.8	51.4	52.5	52.8
Wholesale & Retail Trade	33.6	32.1	35.2	36.4
Transportation & Storage	34.1	41.3	41.8	43.3
Accommodation & Food Services	54.6	51.2	52.2	53.8
Information & Communications	56.5	54.8	55.0	53.6
Finance & Insurance	49.9	52.1	52.1	50.0
Business Services	43.3	41.7	41.7	41.6
Other Services Industries	73.7	73.3	74.6	76.2

¹ Comprise Agriculture, Fishing and Quarrying.

Figures are expressed as a share of Income-based Gross Value-added.

TABLE A7 GROSS OPERATING SURPLUS AS A PERCENTAGE OF
NOMINAL INDUSTRY GROSS VALUE-ADDED (PROFIT SHARE)

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Manufacturing	67.0	65.2	65.2	62.1
Construction	23.1	23.4	23.4	22.0
Utilities	75.4	75.9	75.2	73.3
Other Goods Industries ¹	40.9	38.7	37.2	35.4
Wholesale & Retail Trade	65.3	67.1	62.9	60.9
Transportation & Storage	63.8	55.5	55.6	54.3
Accommodation & Food Services	41.7	43.2	42.4	40.8
Information & Communications	42.8	43.9	42.8	43.1
Finance & Insurance	49.7	46.9	47.7	50.1
Business Services	52.2	53.2	53.1	52.8
Other Services Industries	19.9	21.3	20.1	18.5
Ownership of Dwellings	94.4	95.1	95.2	95.0
	After Rebasing			
Manufacturing	67.6	65.9	66.4	63.4
Construction	40.7	38.4	36.1	34.4
Utilities	75.5	76.0	74.9	72.1
Other Goods Industries ¹	41.5	39.3	37.7	36.1
Wholesale & Retail Trade	65.9	67.1	64.1	62.8
Transportation & Storage	64.0	55.7	55.5	53.9
Accommodation & Food Services	42.8	45.0	43.9	41.8
Information & Communications	42.4	43.8	43.7	45.1
Finance & Insurance	50.0	47.6	47.5	49.7
Business Services	54.7	55.0	55.3	55.3
Other Services Industries	24.4	24.3	23.1	21.6
Ownership of Dwellings	94.4	94.9	94.8	94.6

¹ Comprise Agriculture, Fishing and Quarrying.

Figures are expressed as a share of Income-based Gross Value-added.

TABLE A8 OTHER TAXES LESS SUBSIDIES ON PRODUCTION AS A
PERCENTAGE OF NOMINAL INDUSTRY GROSS VALUE-ADDED

	Per Cent			
	2010	2011	2012	2013
	Before Rebasing			
Manufacturing	0.9	1.6	1.5	2.0
Construction	3.9	5.1	7.3	10.1
Utilities	3.6	4.1	3.9	4.3
Other Goods Industries ¹	7.9	9.3	9.8	11.3
Wholesale & Retail Trade	0.5	0.8	0.8	1.0
Transportation & Storage	2.0	3.0	2.7	2.8
Accommodation & Food Services	2.4	3.5	3.6	4.2
Information & Communications	1.2	1.5	1.4	1.4
Finance & Insurance	0.2	0.5	0.4	0.4
Business Services	2.2	3.6	3.1	3.3
Other Services Industries	2.1	2.6	2.5	2.5
Ownership of Dwellings	5.6	4.9	4.8	5.0
	After Rebasing			
Manufacturing	0.9	1.5	1.5	1.9
Construction	3.5	4.6	6.6	9.1
Utilities	3.6	4.1	3.9	4.4
Other Goods Industries ¹	7.7	9.2	9.8	11.1
Wholesale & Retail Trade	0.5	0.7	0.7	0.9
Transportation & Storage	1.9	3.0	2.7	2.8
Accommodation & Food Services	2.6	3.8	3.8	4.4
Information & Communications	1.1	1.4	1.3	1.3
Finance & Insurance	0.1	0.4	0.3	0.3
Business Services	2.0	3.3	3.0	3.2
Other Services Industries	1.9	2.3	2.3	2.2
Ownership of Dwellings	5.6	5.1	5.2	5.4

¹ Comprise Agriculture, Fishing and Quarrying.

Figures are expressed as a share of Income-based Gross Value-added.

SINGAPORE DEPARTMENT OF STATISTICS INFORMATION DISSEMINATION SERVICES

Statistics Singapore Website

The *Statistics Singapore Website* was launched by the Singapore Department of Statistics (DOS) in January 1995. Internet users can access the website by connecting to:

<http://www.singstat.gov.sg>

Key Singapore statistics are available via the following sections:

- Statistics
which provides access to the latest statistical findings of DOS as well as statistics compiled by Research and Statistics Units (RSUs) in ministries and statutory boards.
- News
which provides a listing of the news released by DOS and RSUs.
- Publications
which presents the latest editions of DOS' publications, papers and articles.
- Browse by Themes
which presents official statistics compiled by DOS and RSUs in the various ministries and statutory boards according to themes. Within each theme, relevant statistics and related press releases, publications and references are provided.

Statistical resources are available via:

- Publication and Papers
which lists the latest editions of publications released by DOS according to statistical domains at http://www.singstat.gov.sg/publications/publications_and_papers.html. All softcopy DOS publications are available for free downloading. Statistical tables of DOS publications in Excel format are also available.
- Advance Release Calendar
which provides a six months ahead advance release calendar of key statistical indicators.

The website also provides a convenient gateway to international statistical websites under the "Methodologies & Standards" section:

- Guide to International Statistics
which provides hyperlinks to international databases and classifications, as well as websites of international bodies and other national statistical offices.
- IMF Dissemination Standards Bulletin Board
which provides metadata about Singapore's key indicators in the real, fiscal, financial and external sectors, including dissemination practices and information about pre-release access of current indicators.

SingStat Express

SingStat Express is a personalised data delivery service which sends the latest press releases, notices of publication, newsletter, occasional and information papers to subscribers via email. SMS alert service is also available to local users. Subscription details are available from the *Statistics Singapore Website* (<http://www.singstat.gov.sg/express>).

Really Simple Syndication

Really Simple Syndication (RSS) is an easy way to stay updated on the latest statistical news released via the *Statistics Singapore Website*. The SingStat RSS feed delivers statistical news highlights and hyperlinks to the source documents whenever the updates are posted. More information is available at <http://www.singstat.gov.sg/services/RSS.html>.

SINGAPORE DEPARTMENT OF STATISTICS
INFORMATION DISSEMINATION SERVICES (*cont'd*)

SingStat Table Builder

The *SingStat Table Builder* contains statistical data series on the Singapore economy and population for users to create customised data tables, plot graphs and charts and export them in different file formats. Explore data trends with this e-service at <http://www.singstat.gov.sg/tablebuilder>

SingStat Time Series (STS) Online System

The *SingStat Time Series (STS) Online System* is an internet-accessible time series retrieval system. The *STS* includes more than 7,000 historical data series on Singapore society and economy from several domains, including national accounts, balance of payments, investments, finance, labour, prices, business expectations, trade, manufacturing, tourism, demography, health and education.

Besides the usual monthly, quarterly and annual data, STS includes also seasonally adjusted data series for key economic indicators providing for a better analysis and understanding of current economic trends. The STS also offers:

- Web-based search engine that is easy to use;
- “Bookmark” features that enable users to save and organise links in their personalised portals.

Subscription to STS is opened to local and overseas users. More information on *STS* is available via *Statistics Singapore Website* (<http://www.singstat.gov.sg/sts>). For enquiries, please contact our Department at **Tel : 6332-7119**.

E-survey

The *E-survey* enables business organisations to complete and submit their survey forms through the internet. Using secured encryption protocols, the *E-survey* ensures that the information transmitted through the net is secured and protected. The system features online helps and validation checks to assist respondents in completing their survey forms. With the *E-survey*, respondents do away with the tedious paper work and manual tasks of mailing or faxing their survey returns to the Department.

Statistical Enquiries and Feedback

If you have any statistical enquiries or comment or suggestions on our statistical publications and electronic services, you are welcomed to:



E-mail us at **info@singstat.gov.sg**



Fax to us at **(65) 6332-7689**



Call us at **1800-3238118* (local callers)**

(65) 6332-7738 (overseas callers)

* Calls from mobile telephone lines to 1800 local toll free number may be subject to mobile airtime charges as imposed by the relevant mobile service provider.