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Rebasing of the Consumer Price Index (Base Year 2009 = 100)

By

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Introduction

The Singapore Department of Statistics (DOS) has completed the rebasing of the Consumer Price Index (CPI) to base year 2009. The CPI is rebased once every five years to reflect the latest consumption pattern and composition of goods and services consumed by resident households. The main data source for this latest rebasing was the Household Expenditure Survey (HES) conducted between October 2007 and September 2008.

This article presents the 2009-based CPI and highlights the changes in the weighting pattern, methodology and inflation rates between the 2004-based and 2009-based CPI.

Definition and Coverage of CPI

The CPI measures the price changes in a fixed basket of consumption goods and services commonly purchased by the households over time.

The CPI basket covers only consumption expenditures incurred by resident households. Non-consumption expenditures such as loan repayments, income and property taxes, purchase of houses¹, shares and other financial assets etc are excluded.

The 2009-Based CPI Weighting Pattern

As households tend to spend more on some items and less on others, weights are used to ensure that the CPI reflects the relative

1 Housing price is not considered in the CPI as the purchase of a house is generally regarded as a capital investment rather than a consumption expenditure. Instead, the CPI measures the cost to the homeowner of utilising the flow of services provided by their homes, i.e. based on "rental equivalence approach".

importance of each item in the CPI basket, as a proportion of household expenditure.

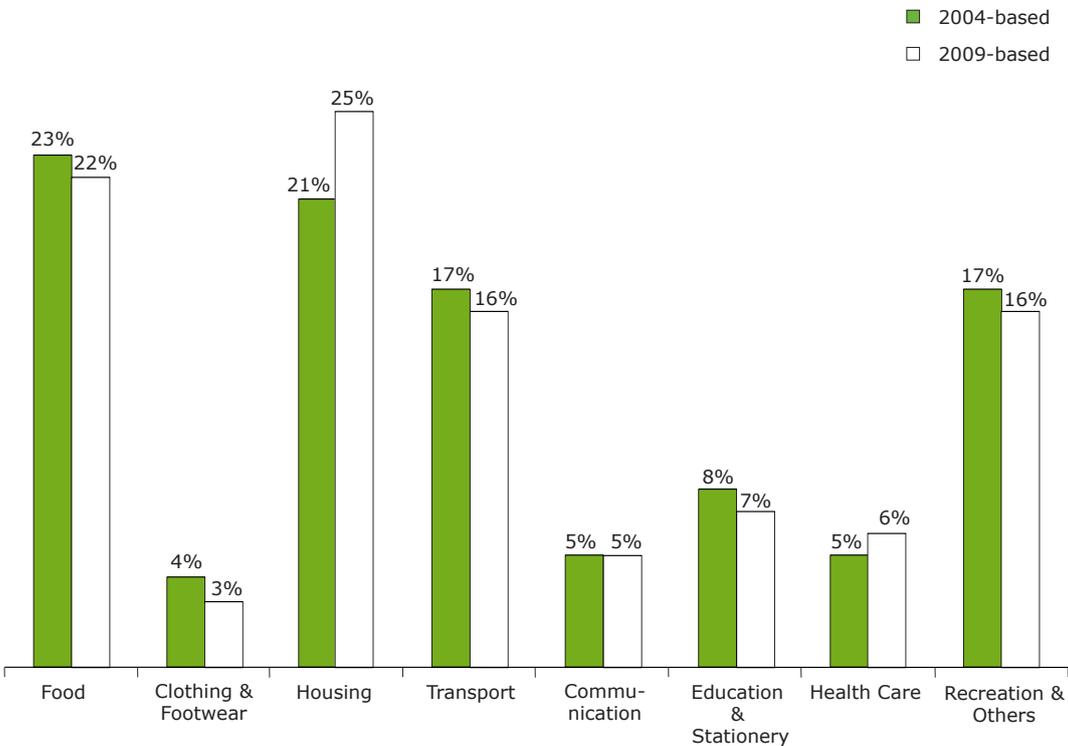
The weighting pattern for the 2009-based CPI was derived from the expenditure values collected from the HES 2007/08. These expenditure values were further updated to price level in 2009, taking into account price changes from 2007/08 to 2009. Chart 1 presents the weighting pattern for 2004-based and 2009-based CPI.

Housing and food were the two most important main groups in the 2009-based CPI basket. Housing share increased from 21 per cent in the 2004-based CPI to 25 per cent in the 2009-based CPI, reflecting higher expenditure

on both rented and owner-occupied housing (OOH). Food was ranked second, despite its weight declining slightly from 23 per cent in 2004-based CPI to 22 per cent in 2009-based CPI. Within the food group, households spent proportionately less on “non-prepared meals” and more on “prepared meals”.

The shares of transport as well as recreation & others fell 1 percentage point each to 16 per cent in the 2009-based CPI. The decline in transport share reflected lower weights for cars, road tax and public road transport. Lower expenditure on holiday expenses and government levy on domestic maids contributed to the decline in the weight for recreation & others.

CHART 1 CPI WEIGHTING PATTERN, 2004-BASED AND 2009-BASED CPI



Compared with the 2004-based CPI, the share of education & stationery fell from 8 per cent to 7 per cent in 2009-based CPI due to lower weights for personal computers and overseas university tuition fees. Health care share went up from 5 per cent in 2004-based CPI to 6 per cent in the 2009-based CPI as a result of higher expenditure on specialized medical treatment and dental services as well as pharmaceutical products and medical insurance premiums. Communication retained its share at 5 per cent in the 2009-based CPI.

Expanded Coverage of Items and Outlets

During the rebasing exercise, the CPI basket of goods and services as well as the sample of outlets were reviewed and updated to reflect current consumption patterns.

The goods and services included for pricing in the CPI are representative of those commonly purchased by the majority of the households. For the 2009-based CPI, the number of brands selected was expanded to 6,500, from 5,170 in the 2004-based CPI. Some examples of new items included were surgical operation and procedures, home medical and nursing services, budget airfares, bundled packages (fixed-line, mobile and broadband services) and compressed natural gas.

The outlets covered in the CPI included a wide range of retailers and service providers commonly patronised by shoppers. The total number of outlets selected for pricing in the 2009-based CPI was increased to 4,200, from 3,000 outlets in the 2004-based CPI.

Methodological Improvements

Methodological changes were also introduced in the 2009-based CPI, taking into account recommendations by the International Labour Organisation (ILO) and other countries' best practices.

(a) Inclusion of One-Person Households

The coverage for the 2009-based CPI was expanded to include one-person households in the derivation of the weighting pattern. This group of households was included to reflect its increasing share in the total resident households.

(b) Adopting More Timely Pricing Indicator for Owner-Occupied Housing (OOH) Costs

For the computation of OOH index in the housing group, DOS has adopted the rental equivalence approach which measures the shelter cost in terms of the expected rental the owner would have to pay if he were a tenant of the premise (i.e. imputed rental).

In the 2004-based CPI, the Annual Value (AV) was the pricing indicator used to track changes in OOH costs as it coincided with the concept of imputed rental. However, as the Inland Revenue Authority of Singapore (IRAS) usually reviews AVs of residential properties only once a year, changes in rentals cannot be reflected in the monthly CPI in a timely manner. For the 2009-based CPI, rental data which are available on a monthly basis from IRAS are used as the pricing indicator for OOH costs instead. This will enable changes in OOH costs to be reflected in the CPI on a more timely basis.

Revision of the 2009 Inflation Rate

The 2009 inflation rate had been revised to 0.6 per cent based on the 2009-based CPI (Table 1). The rate based on the 2004-based CPI was 0.2 per cent.

TABLE 1 PERCENT CHANGE IN CPI, 2009 OVER 2008

Main Group	Per Cent	
	2004-based	2009-based
All Items	0.2	0.6
Food	2.3	2.3
Clothing & Footwear	1.1	0.8
Housing	-0.3	1.7
Transport	-3.6	-3.2
Communication	1.6	0.2
Education & Stationery	0.3	0.8
Health Care	2.9	2.0
Recreation & Others	-0.1	-0.3
All Items less Accommodation	-0.5	-0.5

The revised 2009 inflation rate reflected better the price changes experienced by the households in 2009 as it encompassed more up-to-date weighting pattern and composition of goods and services, as well

as methodological improvements. Excluding accommodation costs, the CPI fell by 0.5 per cent in 2009, both before and after rebasing.

Among the main groups, the CPI for housing in 2009 rose by 1.7 per cent under the 2009-based CPI instead of the 0.3 per cent decline under the 2004-based CPI. The use of monthly rental data from IRAS instead of AV as a pricing indicator for OOH costs enabled the 2009-based housing CPI to reflect more timely the month-to-month changes in OOH costs, in tandem with the underlying market rental trend.

Other major groups also recorded differences in inflation rates. Transport and education & stationery registered relatively higher rates under the 2009-based CPI while clothing & footwear, communication, health care and recreation & others experienced relatively lower inflation rates under the 2009-based CPI.

Conclusion

The CPI has been rebased to base year 2009 to reflect more up-to-date weighting pattern and composition of goods and services, as well as methodological improvements.

Details on the rebasing of the CPI can be found in the Information Paper on "The Rebasing of the Consumer Price Index (Base Year 2009 = 100)", available for free downloading from the SingStat website at

<http://www.singstat.gov.sg/pubn/papers/economy/ip-e36.pdf>

Coordinated Portfolio Investment Survey 2008 - Singapore's Portfolio Investment Assets and Liabilities

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Introduction

The Coordinated Portfolio Investment Survey (CPIS) was initiated by the International Monetary Fund (IMF) to address the problem of perceived discrepancies in recorded financial assets and liabilities. Greater financial liberalisation, growing importance of cross-border portfolio investments, financial innovation and changing market behaviour brought about increasing difficulties in the measurement of international financial flows. The CPIS aims to redress this by collecting information on the stock of cross-border equities and debt securities held by the various participating economies, facilitating greater use of bilateral data to help improve statistics on non-resident holdings of portfolio investment.

The IMF conducted the first CPIS in 1997, and has conducted the survey on an annual basis since 2001. Participation in the survey has increased, from 29 economies reporting their stock of portfolio investment assets in 1997 to 75 for the 2008 CPIS.

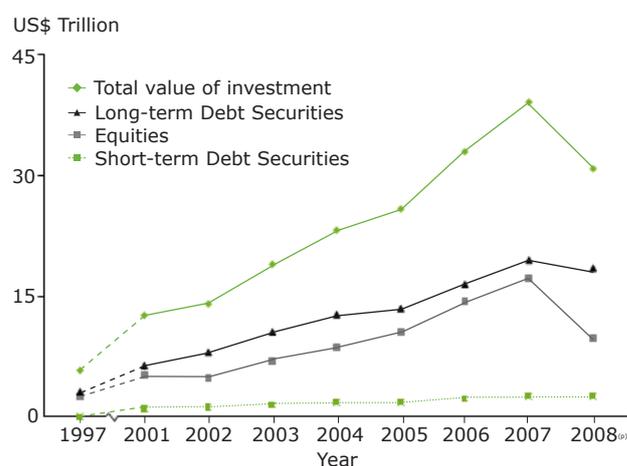
This article draws from the 2008 CPIS results to present an overview of the global stock of

portfolio investment and rankings in 2008, Singapore's portfolio investment assets and liabilities, and a comparison of Singapore's portfolio investment with selected economies.

Global Stock of Portfolio Investment Assets and Liabilities¹

Global cross-border portfolio investment rose by more than six-fold from 1997 to 2007 at a compounded annual growth rate (CAGR) of 21 per cent before declining in 2008 with the onset of the global financial crisis in late 2007 (Chart 1). The stock of portfolio

CHART 1 GLOBAL PORTFOLIO INVESTMENT: REPORTED PORTFOLIO INVESTMENT HOLDINGS



Source: IMF CPIS

¹ The data on global portfolio investment, as well as individual data from all 2008 CPIS participating economies, can be obtained from the IMF CPIS website at <http://www.imf.org/external/np/sta/pi/cpis.htm>. All values in this section are presented in US dollars.

investment assets matched worldwide liabilities at US\$31 trillion, down 21 per cent from a peak of US\$39 trillion at the end of 2007.

The total value of equity investments as at end-2008 fell sharply by 43 per cent from a year earlier, while debt securities decreased at a relatively moderate rate of 4.4 per cent as a modest 1.5 per cent increase in short-term debt was offset by a 5.1 per cent decline in long-term securities. Long-term debt securities continued to form the bulk of global portfolio investment at 60 per cent of the total as at end-2008. This was followed by equities, with short-term debt securities constituting the remaining 8.5 per cent of total investment.

Global Rankings

The top economies in terms of cross-border holdings of portfolio investment equities and debt securities were the United States (US), United Kingdom (UK), France, Japan and Germany (see Table 1). Together they held 45 per cent of global portfolio investment assets as at end-2008. The US held US\$4.3 trillion worth of overseas assets while investors in the UK and France had holdings amounting to US\$2.6 trillion and US\$2.5 trillion respectively. Japan and Germany, the next largest investing economies, also held total portfolio assets of US\$2.4 trillion and US\$2.1 trillion respectively.

TABLE 1 GLOBAL PORTFOLIO INVESTMENT - SELECTED RANKINGS IN 2008 (AS AT YEAR-END)

US\$ Million					
ASSETS			LIABILITIES		
Rank	Economy	2008	Rank	Economy	2008
1	United States	4,267,865	1	United States	6,323,627
2	United Kingdom	2,568,906	2	United Kingdom	2,742,359
3	France	2,529,058	3	Germany	2,700,216
4	Japan	2,376,606	4	France	2,076,934
5	Germany	2,149,155	5	Netherlands	1,517,975
6	Luxembourg	2,120,203	6	Luxembourg	1,502,620
7	Ireland	1,626,805	7	Italy	1,318,516
8	Netherlands	1,139,681	8	Cayman Islands	1,270,917
9	Italy	956,609	9	Spain	1,132,599
10	Switzerland	882,004	10	Japan	1,101,953
	:			:	
13	Hong Kong	552,270	14	Australia	524,388
19	Singapore	307,291	19	China	251,335
21	Australia	258,449	24	India	213,193
28	South Korea	75,113	26	South Korea	204,325
44	Malaysia	16,136	29	Hong Kong	180,274
69	India	886	32	Singapore	86,922
			41	Malaysia	49,891

Source: IMF CPIS

The US and UK were the top two recipients of inward portfolio investment. Foreign investments into the US amounted to US\$6.3 trillion, exceeding combined securities issued to non-residents in both the UK and Germany (the 3rd highest recipient) at US\$5.4 trillion for the year (with each economy contributing about US\$2.7 trillion). France and the Netherlands also attracted significant foreign portfolio investments worth US\$2.1 trillion and US\$1.5 trillion respectively. These five economies collectively accounted for 50 per cent of global portfolio investment liabilities in 2008.

In the 2008 CPIS, Singapore was ranked 19th in terms of size of reported portfolio asset holdings, up from the 21st position attained in 2007. Singapore remained the third largest Asian investor after Japan and Hong Kong (at 4th and 13th in respective global rankings).

Singapore was ranked 32nd in terms of portfolio investment liabilities among the

238 economies covered in the 2008 CPIS. In Asia, total foreign investment into Singapore was 6th behind Japan (10th), China (19th), India (24th), South Korea (26th), and Hong Kong (29th).

Singapore's Portfolio Investment Assets²

Singapore's stock of portfolio investment assets (including investments by Asian Currency Units³) stood at S\$442 billion as at end-2008, down 16 per cent from S\$524 billion in 2007 (Table 2). Consistent with the global downturn, holdings of foreign debt securities and equities by resident portfolio investors declined significantly by 17 per cent and 15 per cent respectively. The highest proportion of assets had consistently been in equities, contributing between 42 per cent and 49 per cent of total investment from 2006 to 2008. Long and short-term debt securities constituted 28 per cent and 23 per cent of portfolio assets at the end of 2008.

TABLE 2 PORTFOLIO INVESTMENT ASSETS, 2006 - 2008 (AS AT YEAR-END)

	2006	2007	2008	2006	2007	2008
	S\$ Million			Per Cent		
Total Portfolio Investment Assets	403,146	524,061	442,253	100.0	100.0	100.0
Equities	169,724	253,935	216,944	42.1	48.5	49.1
Debt Securities	233,423	270,126	225,310	57.9	51.5	50.9
Long-term Debt Securities	126,614	147,444	124,708	31.4	28.1	28.2
Short-term Debt Securities	106,809	122,682	100,602	26.5	23.4	22.7

Figures may not add up to totals due to rounding.
Source: Singapore Department of Statistics (DOS)

- 2 All values in sections on Singapore's portfolio investment assets and liabilities are presented in Singapore dollars.
3 Asian Currency Units or ACUs are offshore financial institutions and treated as non-residents in Singapore's International Investment Position, but have been included as residents for the purpose of CPIS.

Geographical Distribution of Assets

The top ten host economies for Singapore's overseas portfolio investment accounted for 67 per cent of total holdings (Table 3), with the UK, US and South Korea attracting the most investments in 2008. Among the top destination economies, only resident investments in the UK recorded an increase of 7.7 per cent from a year earlier while securities held in the US and South Korea fell by 4.7 per cent and 1.9 per cent respectively. The asset compositions differed between economies. Short-term debt securities constituted most of portfolio assets in the UK (78 per cent), while more than half (55 per cent) of investments in the US was made up of equities. Long-term debt securities accounted for 50 per cent of assets in South Korea.

TABLE 3 PORTFOLIO INVESTMENT ASSETS BY ECONOMY, END-2008

Economy	Per Cent
UK	16.7
US	14.7
South Korea	6.4
Australia	6.1
Hong Kong	5.4
India	4.7
China	3.6
Malaysia	3.3
France	3.3
Japan	3.2
Others	32.6

Source: DOS

Australia, and major Asian economies such as Hong Kong, India, China and Japan, remained among the top ten investment destinations despite registering declines ranging from 13 to 28 per cent for the year. Investments in Malaysia also more than halved from 2007

as resident holdings in Malaysian short-term debt securities fell sharply. In addition, portfolio assets in major European economies saw reductions in value with investments in France decreasing by 19 per cent at the end of 2008. With the exception of Australia, the majority of portfolio investment assets in the other economies were in equities, particularly for Japan, Hong Kong and China, where it accounted for 78 to 87 per cent of total holdings.

Comparisons of Assets with Selected Economies

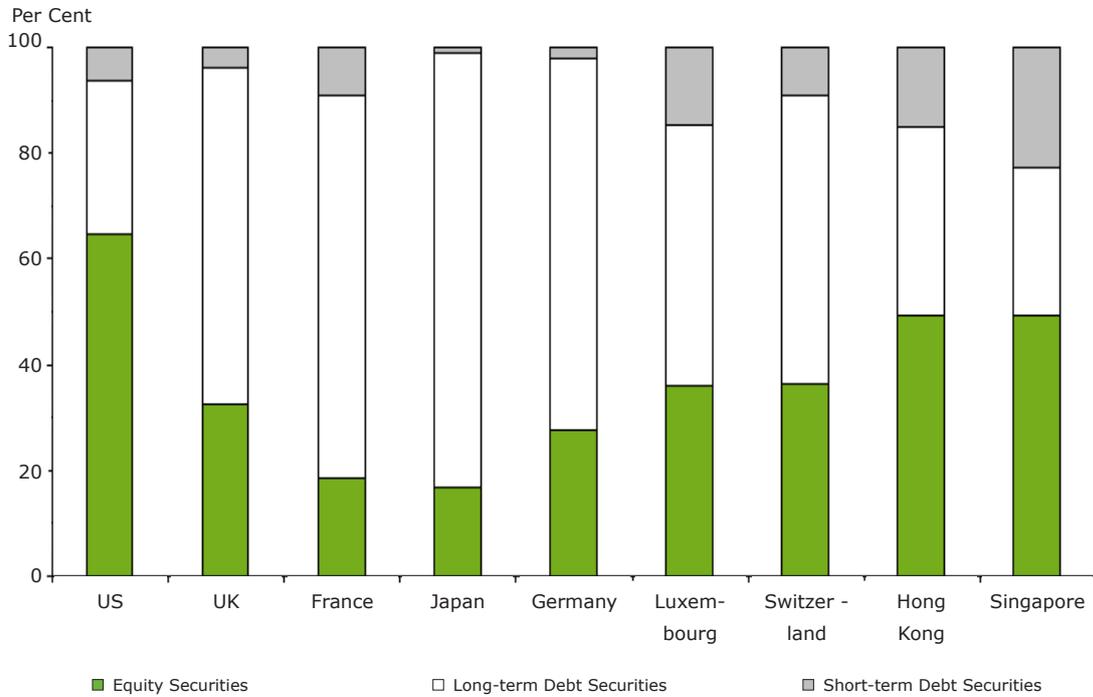
The structure of Singapore's cross-border holdings of securities was similar to the composition of Hong Kong's assets in 2008 (Chart 2), as both economies had 49 per cent of overseas investments in equities followed by long and short-term debt securities. The US had a comparable investment profile, with equities accounting for the bulk of total assets at 64 per cent. In contrast, other global financial centers such as the UK, Luxembourg and Switzerland mainly invested in long-term debt securities (49 per cent to 64 per cent of total holdings) followed by equities (at about one third for each economy). Major global investor economies including Japan, France and Germany predominantly held fixed income instruments, with more than 70 per cent of portfolio assets in debt securities.

Singapore's Portfolio Investment Liabilities: 2008 CPIS Derived Creditors' Data⁴

The stock of Singapore's portfolio investment liabilities halved from S\$246 billion as at

⁴ Singapore's Portfolio Investment Liabilities have been derived from 2008 CPIS submissions from other economies to the IMF and were not compiled by DOS. All the data presented in this section were obtained from the IMF CPIS website at: <http://www.imf.org/external/np/sta/pi/cpis.htm>.

CHART 2 COMPOSITION OF PORTFOLIO ASSETS OF SELECTED ECONOMIES, END-2008



Source: IMF CPIS

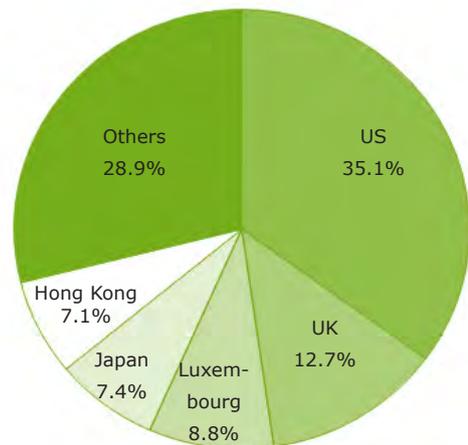
end-2007 to S\$125 billion for the year. This was due to a general decline in acquisitions of domestically-issued securities by non-residents, led by equities which decreased significantly by 53 per cent followed by short and long-term debt securities at 42 per cent and 32 per cent respectively. Foreign portfolio investment remained concentrated in equities, which accounted for 69 per cent of total liabilities. Long-term debt securities constituted 28 per cent of portfolio liabilities, while the remaining 2.6 per cent were in short-term debt securities.

Geographical Distribution of Liabilities

The US, UK, Luxembourg, Japan and Hong Kong were the main sources of inward

portfolio investment, collectively accounting for 71 per cent of Singapore’s portfolio liabilities at the end of 2008 (Chart 3). Investments from all five economies fell

CHART 3 MAIN SOURCES OF INWARD PORTFOLIO INVESTMENT, END-2008



Source: IMF CPIS

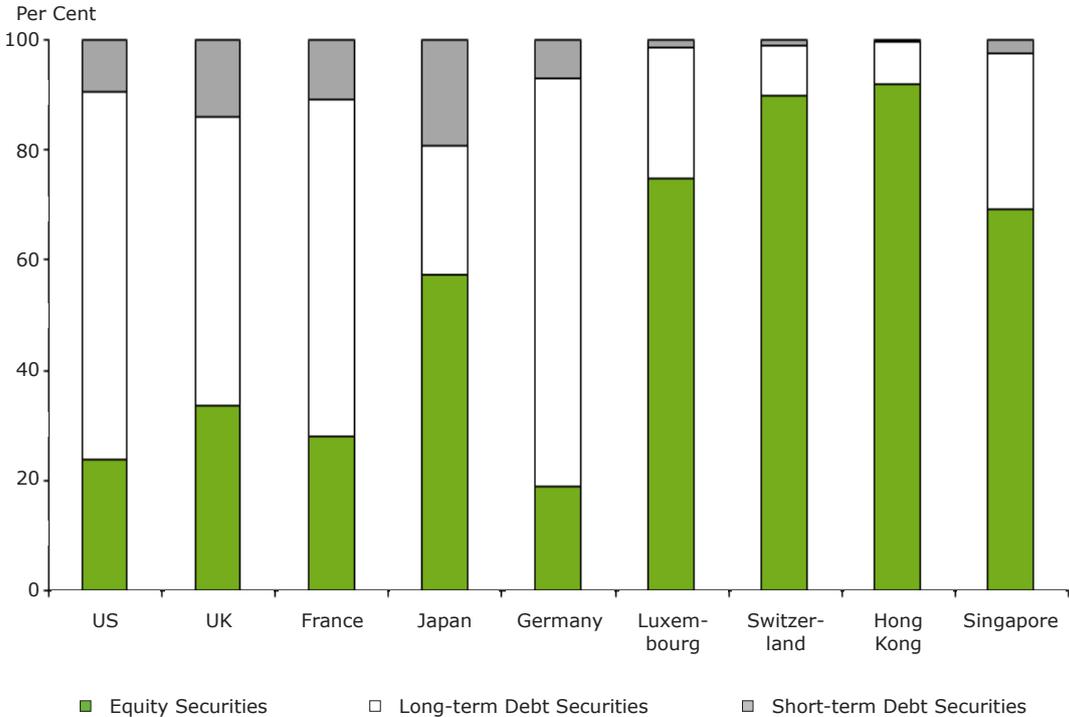
significantly from 2007, with the halving of liabilities to the US, UK and Luxembourg, and investors from Japan and Hong Kong experiencing respective year-on-year declines of 43 per cent and 30 per cent. Equities formed the majority of investments from the US, UK, Luxembourg and Japan, with the first three economies investing more than 70 per cent of total investment in domestic equities. Long-term debt securities and equities each accounted for about 40 per cent of investments from Hong Kong.

Comparisons of Liabilities with Selected Economies

Among selected economies, foreign portfolio liabilities in Singapore had broad

structural similarities to securities issued to non-residents in Japan, Luxembourg, Switzerland and Hong Kong, with equities accounting for the bulk of investments followed by long and short-term debt securities (Chart 4). Singapore and Luxembourg were the most similar, as both had about 70 per cent of cross-border liabilities in equities as at end-2008 and between 20 to 30 per cent in long-term debt securities. For the rest of the economies (the US, UK, France and Germany), fixed income instruments in the form of long-term debt securities accounted for the majority of liabilities, followed by equities and short-term debt securities.

CHART 4 COMPOSITION OF PORTFOLIO LIABILITIES OF SELECTED ECONOMIES, END-2008



Source: IMF CPIS

Conclusion

Singapore's stock of total portfolio investment assets and liabilities declined significantly at the end of 2008, in line with global portfolio investment. The UK and US, the world's largest investing countries and concurrently the top recipients of cross-border investments, were also the main destinations for Singapore's portfolio investment abroad as well as the top foreign investors in domestic securities for the year.

The composition of Singapore's portfolio investment assets was generally in line with the structure of liabilities to foreign investors, with equities accounting for the bulk of investments followed by long and short-term debt securities. Among major financial centers, Singapore's asset structure was largely similar to Hong Kong's cross-border holdings of securities while the composition of inward portfolio investment was closest to that of Luxembourg in 2008.

2009 in Brief

Singapore's population

... reached 4.99 million in June 2009.

Singapore's economy

... contracted by 2.0 per cent.

Mean years of schooling

... was 10.3 years for male resident non-students aged 25 years and over and 9.2 years for female resident non-students aged 25 years and over.

Home ownership rate

... was 88.8 per cent.

Per capita gross national income

... increased to S\$51,860.

Gross national saving

... was S\$120.2 billion.

Official foreign reserves

... increased to S\$264.0 billion.

Labour force participation rate

... reached 76.3 per cent among males and 55.2 per cent among females.

Resident unemployment rate (seasonally adjusted)

... was 4.6 per cent.

Inflation rate

... was 0.6 per cent.

Value added for the manufacturing sector

... amounted to S\$44.0 billion.

Investment commitments in manufacturing and services

... reached S\$11.8 billion.

Total trade

... reached S\$747.4 billion.

Visitor arrivals

... was 9,681 thousand.

Sea cargo handled

... reached 472 million freight tonnes.

Air cargo handled

... was 1,637 thousand tonnes.

Mobile phone subscribers

... reached 1,374 per 1,000 population.

Residential broadband subscribers

... increased to 332 per 1,000 population.

Crime rate

... declined to 661 per 100,000 population.

DOS' Vision, Mission and Principles

The Singapore Department of Statistics (DOS) conducted a Corporate Planning Exercise (CPE) in April 2009 where the strategic direction of DOS was discussed. The vision, mission and principles were refined after further discussions and unveiled at the DOS Symposium in October 2009. These can be found on the Singstat website at:

www.singstat.gov.sg/abtus/abtus.html#vis

Vision

A national statistical system of quality, integrity and expertise

Mission

We provide reliable, relevant and timely statistics to support Singapore's social and economic development

Guiding Principles

Professionalism & Expertise	We adhere to professional ethics and proficiently produce quality statistics that comply with international concepts and best practices.
Relevance	We constantly innovate our processes and produce statistics that meet users' needs.
Accessibility	We make our statistics readily available.
Confidentiality	We protect the confidentiality of information provided to us.
Timeliness & Reliability	We produce statistics that users can depend on, and disseminate them at the earliest possible date while maintaining data quality.
Cost Effectiveness	We use resources effectively, minimising respondent burden and leveraging on administrative data.

Statistics Act Amendment

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Introduction

The Statistics (Amendment) Bill was passed in Parliament on 11 Jan 2010. The amended Statistics Act, which takes effect from 12 Feb 2010, comprises two key amendments:

- 1) To allow the Department of Statistics (DOS) and the Research and Statistics Units (RSUs) gazetted under the Statistics Act to provide researchers access to anonymised microdata¹
- 2) To clarify DOS' legislative powers to obtain information from public sector agencies.

The last major amendment made to the Statistics Act was in 1990.

Providing Anonymised Microdata Access

DOS and gazetted RSUs collect, analyze and disseminate a wide range of socio-economic and demographic statistics. Under the previous Statistics Act, such statistics can only be provided in aggregated form.

The provision of anonymised microdata access is in line with practices of other advanced National Statistical Offices (NSOs) in the US, the UK, Netherlands, Finland and Australia and enables researchers to undertake more sophisticated analyses.

Under the amended Statistics Act, DOS and the gazetted RSUs can provide anonymised microdata access to approved researchers. A calibrated approach will be adopted. For a start, only researchers from public sector agencies or their commissioned consultants will be allowed access. Access to a wider group such as research institutions will be considered at a later stage.

Various safeguards will be put in place to protect the confidentiality of individual data (Table 1).

Obtaining Information from Public Agencies

DOS was established to collect, compile, analyze and disseminate key official statistics. To minimise the burden on

1 "Anonymised" microdata refer to data where the particulars or information pertaining to any person is in a form that conceals or protects the identity of that person, whether by presenting such particulars or information in statistical form or otherwise, such that the identity of that person cannot be readily discovered or ascertained from the particulars or information. "Microdata" refer to data on a person, household or establishment at an individual level.

respondents, DOS has been using administrative data collected by other agencies, instead of requesting the same information anew directly from members of the public or private establishments.

The amendment makes it explicit that the Chief Statistician is allowed to obtain data from public agencies for statistical purposes. The data obtained will be protected under the provisions

of the Statistics Act. This amendment further strengthens DOS' role as Singapore's National Statistical Authority and enhances its ability to provide more timely and relevant statistics to the government and the public. As a safeguard, the Ministers responsible for the agencies that collect, or are in possession of the data will have the power to exempt sensitive information from being provided to the Chief Statistician.

TABLE 1 SAFEGUARDS TO PROTECT THE CONFIDENTIALITY OF INDIVIDUAL DATA

- The **microdata must be anonymised** by applying appropriate statistical techniques before access is provided. In instances where it may not be possible to completely mask the identity of the individual party, such as in the case of industries with only a small number of firms, access will not be provided.
- Users are required to come to an **on-site Data Lab** at DOS or the gazetted RSUs to access the anonymised microdata.
- All **output will be examined** prior to the researchers taking them out from the Data Lab. This is to ensure that only statistical tables and output without any anonymised microdata are taken out.
- A **two-layer administrative review mechanism** will be put in place to ensure data confidentiality. A Microdata Review Panel will look at the technical issues on anonymisation and assess each request for microdata. The Microdata Advisory Committee will advise on policy issues and processes relating to anonymised microdata access.
- The maximum **fine for breaches of confidentiality has been increased** from \$5,000 to \$10,000, besides the existing provision for imprisonment for a term of up to 12 months. This serves as an additional deterrence to the abuse or misuse of anonymised microdata.

Singapore Standard Statistical Classifications 2010

By
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The Singapore Department of Statistics (DOS) completed the revision of three national standard statistical classifications in February 2010, namely the Singapore Standard Industrial Classification (SSIC), Singapore Standard Occupational Classification (SSOC) and Singapore Standard Educational Classification (SSEC). Stakeholder agencies and representative organisations of businesses were consulted widely to ensure that changes and developments in economic and industrial activities, the labour markets as well as the education and training systems would be taken account of in the revision of these classifications.

The classifications are used in data collection (e.g. censuses, surveys, administrative records) which requires the classification of economic activities, occupations or education programmes and qualifications. They are also used in the compilation, presentation and analyses of a wide range of statistics, including national income, production, demographic, social, labour and education statistics.

The major changes of each classification are highlighted in this article.

Singapore Standard

Industrial Classification 2010

The SSIC 2010 is the tenth edition of the classification. It adopts the basic framework of the International Standard Industrial Classification Revision 4 (ISIC Rev. 4) but with appropriate modifications made to take into account Singapore's unique economic circumstances while enhancing international comparability. The classification also incorporates recent changes in economic activities to better reflect the current structure of Singapore's economy.

The number of broad sections remains unchanged at 22 in SSIC 2010. One major change is the shift of the non-real estate rental and leasing activities from 'Real Estate, Rental and Leasing Activities' in SSIC 2005 to 'Administrative and Support Service Activities' in SSIC 2010. As a result, 'Real Estate, Rental and Leasing Activities' has been renamed as 'Real Estate Activities'. A comparison of the sections in SSIC 2010 and SSIC 2005 is shown in Table 1.

TABLE 1 COMPARISON OF SECTIONS IN SSIC 2010 AND SSIC 2005

SSIC 2010		SSIC 2005	
A	Agriculture and Fishing	A	Agriculture and Fishing
B	Mining and Quarrying	B	Mining and Quarrying
C	Manufacturing	C	Manufacturing
D	Electricity, Gas and Air-Conditioning Supply	D	Electricity and Gas Supply
E	Water Supply; Sewerage, Waste Management and Remediation Activities	E	Water Supply, Sewerage and Waste Management
F	Construction	F	Construction
G	Wholesale and Retail Trade	G	Wholesale and Retail Trade
H	Transportation and Storage	H	Transport and Storage
I	Accommodation and Food Service Activities	J	Hotels and Restaurants
J	Information and Communications	K	Information and Communications
K	Financial and Insurance Activities	L	Financial and Insurance Activities
L	Real Estate Activities	M	Real Estate, Rental and Leasing Activities
M	Professional, Scientific and Technical Activities	N	Professional, Scientific and Technical Activities
N	Administrative and Support Service Activities	O	Administrative and Support Service Activities
O	Public Administration and Defence	T	Public Administration and Defence
P	Education	P	Education
Q	Health and Social Services	Q	Health and Social Work
R	Arts, Entertainment and Recreation	R	Arts, Entertainment and Recreation
S	Other Service Activities	S	Other Service Activities
T	Activities of Households as Employers of Domestic Personnel	U	Domestic Work Activities
U	Activities of Extra-Territorial Organisations and Bodies	V	Extra-Territorial Organisations and Bodies
V	Activities Not Adequately Defined	W	Activities Not Adequately Defined

New divisions have also been created in some sections to classify economic activities at finer levels. Table 2 lists some of the more significant new divisions in SSIC 2010.

At the most detailed level, a number of five-digit codes have been introduced to identify new and emerging industries and better reflect those that have grown in

prominence. For instance, with increasing attention on environmental issues, codes have been introduced for a wide range of activities, including manufacturing (solar wafers, solar modules), engineering services (clean energy systems), research and development (environment and clean technologies), financial (carbon credit brokers) and consultancy services (carbon consultancy).

Unique codes have also been created for a variety of services in the media (animation production, development of software for interactive digital media), financial services (marine insurance, hedge fund management), intellectual property (patents brokerage), entertainment and recreation (casinos, theme parks), and charitable (philanthropic trusts and foundations) sectors.

TABLE 2 NEW DIVISIONS IN SSIC 2010

Section	Division
Section F Construction	41 Construction of Buildings
	42 Civil Engineering
	43 Specialised Construction Activities
Section G Wholesale and Retail Trade	45 Wholesale and Retail Trade of Motor Vehicles and Motorcycles
Section I Accommodation and Food Service Activities	55 Accommodation
	56 Food and Beverage Service Activities
Section J Information and Communications	60 Radio and Television Broadcasting Activities
Section K Financial and Insurance Activities	66 Activities Auxiliary to Financial Service and Insurance Activities
Section M Professional, Scientific and Technical Activities	69 Legal and Accounting Activities
	70 Activities of Head Offices; Management Consultancy Activities
	73 Advertising and Market Research
	75 Veterinary Activities
Section N Administrative and Support Service Activities	78 Employment Activities
	79 Travel Agencies, Tour Operators and Reservation Service Activities
	80 Security and Investigation Activities
	81 Cleaning and Landscape Maintenance Activities
Section R Arts, Entertainment and Recreation	91 Libraries, Archives, Museums and Other Cultural Activities
	92 Gambling and Betting Activities
	93 Sports Activities and Amusement and Recreation Activities

Singapore Standard Occupational Classification 2010

The SSOC 2010 is the sixth version of the SSOC. It adopts the basic framework and principles of the International Standard Classification of Occupations 2008 (ISCO-08) developed by the International Labour Office (ILO) and reflects the latest developments in the labour market, particularly the emergence of new occupations.

The number of major groups in SSOC 2010 remains at 10. The descriptions of a few of these groups have however been amended to better reflect existing norms. A comparison of the major groups in SSOC 2010 and SSOC 2005 is shown in Table 3.

New two-digit sub-major groups have been created to allow for more detailed identification of occupational groups. Table 4 shows some

of the more significant sub-major groups created in SSOC 2010.

The number of sub-major, minor and unit groups has increased as well, which provides for a higher level of disaggregation at each of these levels. At the most detailed level, more occupations have been assigned unique five-digit codes.

Apart from the creation of new unique codes, there is also a consolidation or re-classification of codes. For example, the five-digit codes for general managers, which were previously differentiated by industry, have been consolidated into a single code, similar to other senior management occupations like managing director and chief executive officer which are not classified based on industry. Similarly, the sub-major group of working proprietors has been removed in SSOC 2010.

TABLE 3 COMPARISON OF MAJOR GROUPS IN SSOC 2010 AND SSOC 2005

SSOC 2010		SSOC 2005	
1	Legislators, Senior Officials and Managers	1	Legislators, Senior Officials and Managers
2	Professionals	2	Professionals
3	Associate Professionals and Technicians	3	Associate Professionals and Technicians
4	Clerical Support Workers	4	Clerical Workers
5	Service and Sales Workers	5	Service Workers and Shop and Market Sales Workers
6	Agricultural and Fishery Workers	6	Agricultural and Fishery Workers
7	Craftsmen and Related Trades Workers	7	Production Craftsmen and Related Workers
8	Plant and Machine Operators and Assemblers	8	Plant and Machine Operators and Assemblers
9	Cleaners, Labourers and Related Workers	9	Cleaners, Labourers and Related Workers
X	Workers not Classifiable by Occupation	X	Workers not Classifiable by Occupation

TABLE 4 NEW SUB-MAJOR GROUPS IN SSOC 2010

Major Group	Sub-Major Group
1 Legislators, Senior Officials and Managers	12 Administrative and Commercial Managers
	13 Production and Specialised Services Managers
	14 Hospitality and Related Services Managers
2 Professionals	22 Health Professionals
	25 Information and Communications Technology Professionals
3 Associate Professionals and Technicians	32 Health Associate Professionals
	35 Information and Communications Technicians
4 Clerical Support Workers	41 General and Keyboard Clerks
	43 Numerical and Material Recording Clerks
5 Service and Sales Workers	51 Personal Service Workers
	53 Personal Care Workers
	54 Protective Service Workers
7 Craftsmen and Related Trades Workers	74 Electrical and Electronic Trades Workers

The various five-digit codes for working proprietors have instead been regrouped with managers whose job duties are relatively similar e.g. construction working proprietor and building and construction project manager are now classified within the same four-digit group.

To better reflect the increasing variety of health, and information and communication (ICT) occupations, certain minor groups have been elevated to sub-major groups for both professionals as well as associate

professionals in these fields. This allows for more detailed breakdown, for example, having three distinct unit groups of specialist medical practitioners - viz. medical, surgical and other specialisations.

Lastly, new unique codes have been created under several sub-major groups to identify specific occupations. For instance, sports centre manager is listed under other services managers while environment research scientist is listed under science and engineering professionals.

Singapore Standard Educational Classification 2010

The SSEC 2010 is the second edition of the SSEC. It makes reference to and is consistent with the basic framework and principles of the International Standard Classification of Education 1997 (ISCED 97). To ensure the relevance of the SSEC, the classification has been revised to take into account developments in the education system as well as initiatives in workforce education and upgrading.

Unlike the SSIC and SSOC which are each designed as one single classification, the SSEC comprises three sub-classifications:

- Classification of Level of Education Attending
- Classification of Educational Qualification Attained
- Classification of Field of Study

Classification of Level of Education Attending

This classification categorises the level of education attending, which refers to the grade or standard of formal education that a full-time student is attending.

The number of one-digit groups in SSEC 2010 has been reduced to 8 from 10 in SSEC 2000. This is due to the re-classification of general and vocational educational programmes of similar educational level to the same one-digit group. The term "Upper Secondary" has also been replaced by "Post-Secondary" to further align with the terminology used in ISCED 97.

The comparison of the one-digit categories between SSEC 2010 and SSEC 2000 is shown in Table 5.

At the two-digit level, the number of educational level categories has been reduced by 2 to 34 in SSEC 2010. This is the result of a more streamlined New ITE Certification System which groups the level of training into three categories only.

Classification of Educational Qualification Attained

The level of educational qualification attained refers to the grade or standard of formal education passed or the highest level of education where a certificate, diploma or degree is awarded by a formal educational institution. The educational qualification may be attained through full-time or part-time study in a structured educational programme.

In the classification of educational qualification attained, the number of one-digit categories remains unchanged while the number of two-digit categories increased from 31 in SSEC 2000 to 44 in SSEC 2010. Table 6 compares the one-digit categories of SSEC 2010 and 2000.

A new category "Other Education (Non-Award Courses/Degree)" has been added to classify educational attainment based on the Singapore Workforce Skills Qualifications System (WSQ) framework. At the two-digit level, full qualifications awarded based on the WSQ system have also been classified to the equivalent benchmarked qualifications of full-time education system.

TABLE 5 COMPARISON OF ONE-DIGIT CATEGORIES IN SSEC 2010 AND SSEC 2000
(LEVEL OF EDUCATION ATTENDING)

SSEC 2010		SSEC 2000	
0	Pre-Primary	0	Pre-Primary
1	Primary	1	Primary
2	Secondary: General & Vocational	2	Secondary: General
		3	Secondary: Vocational
3	Post-Secondary (Non-Tertiary): General & Vocational	4	Upper Secondary: General
		5	Upper Secondary: Vocational
4	Polytechnic Diploma Course	6	Polytechnic Diploma Course
5	Other Courses Leading to Award of Professional Qualification and Other Diploma	7	Other Courses Leading to Award of Professional Qualification and Other Diploma
6	University First Degree	8	University First Degree
7	University Postgraduate Diploma/Degree	9	University Postgraduate Diploma/Degree

 TABLE 6 COMPARISON OF ONE-DIGIT CATEGORIES IN SSEC 2010 AND SSEC 2000
(EDUCATIONAL QUALIFICATION ATTAINED)

SSEC 2010		SSEC 2000	
0	No Formal Qualification/Lower Primary	0	No Formal Qualification/Lower Primary
1	Primary	1	Primary
2	Lower Secondary	2	Lower Secondary
3	Secondary	3	Secondary
4	Post-Secondary (Non-Tertiary): General & Vocational	4	Upper Secondary: General
		5	Upper Secondary: Vocational
5	Polytechnic Diploma Course	6	Polytechnic Diploma Course
6	Professional Qualification and Other Diploma	7	Professional Qualification and Other Diploma
7	University First Degree	8	University First Degree
8	University Postgraduate Diploma/Degree	9	University Postgraduate Diploma/Degree
9	Other Education (Non-Award Courses/ Miscellaneous)		NA

Classification of Field of Study

The field of study refers to the principal discipline, branch or subject matter of study that leads to the award of the qualification attained at polytechnic or university levels. Vocational qualifications at post-secondary level may also be classified by field of study. The number of two-digit fields remains unchanged at 14 in the SSEC 2010 field of study classification. These are listed in Table 7.

TABLE 7 LIST OF BROAD FIELDS IN SSEC 2010

Code	Description
01	Education
02	Fine & Applied Arts
03	Humanities & Social Sciences
04	Mass Communication & Information Science
05	Business & Administration
06	Law
07	Natural, Physical, Chemical & Mathematical Sciences
08	Health Sciences
09	Information Technology
10	Architecture & Building
11	Engineering Sciences
12	Engineering, Manufacturing & Related Trades
13	Services
99	Other Fields

The number of three-digit narrow fields has increased from 57 in SSEC 2000 to 59 in SSEC 2010, due to the addition of Trainer Training and Complementary Therapies as unique

fields of study. Apart from the addition of new narrow fields, the existing field of social work has also expanded in scope. "Social, Sports and Community Services" now includes more detailed fields of study in social and community services as well as sports and recreation. Another change in the SSEC is the re-classification of Actuarial Science from the narrow field of Mathematics & Statistics to Banking, Insurance and Financial Services. This is in response to the orientation of the curriculum content of insurance, finance and banking towards applications.

The number of four-digit detailed fields has risen by 8 to 238 in SSEC 2010. The list of new detailed fields in SSEC 2010 is shown in Table 8. For example, Auditing and Tax Accounting have been identified from the broader field of Accountancy and added while Infocomm Security Management has been included as a field within Information Technology.

TABLE 8 LIST OF NEW DETAILED FIELDS IN SSEC 2010

Code	Description
0130	Adult & Continuing Education and Training
0342	Student/Youth Care
0343	Counselling
0344	Sports and Recreation
0522	Auditing
0542	Tax Accounting
0870	Complementary Therapies
0917	Infocomm Security Management

Download the latest Singapore Standard Statistical Classifications from
<http://www.singstat.gov.sg/statsres/resources.html#standards>

Formation and Cessation of Companies and Businesses, 2009

Companies

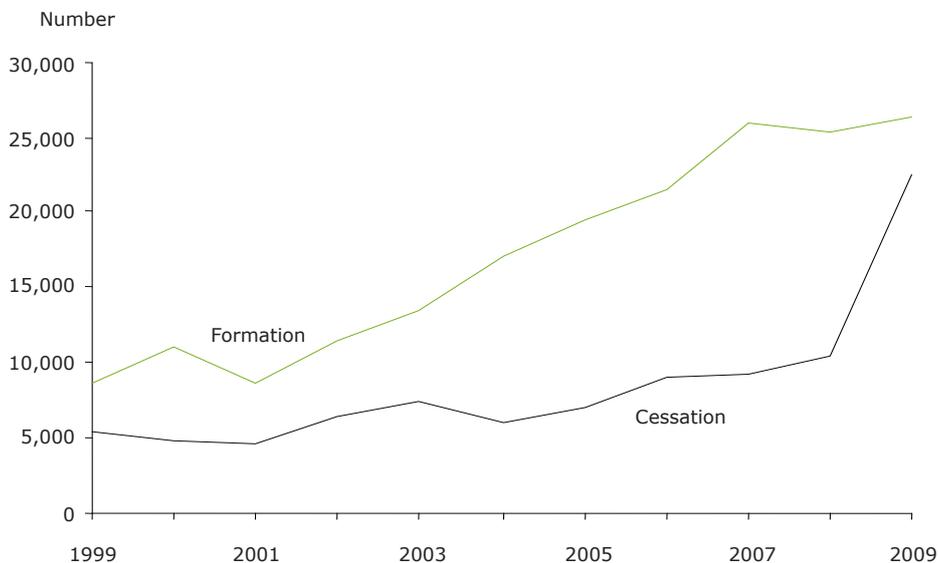
Some 26,420 companies were formed in 2009, a 4.3 per cent increase from 2008, when 25,330 companies were formed.

Of the companies that were formed, double-digit increases were recorded in education, health & social work industry and real estate activities (18 per cent each), professional, scientific & technical activities (15 per cent), and wholesale & retail trade (14 per cent). Industries which recorded declines

in company formations included financial & insurance services and manufacturing (13 per cent each), and administrative & support activities (8.8 per cent).

The total number of companies that ceased operations stood at 22,380 in 2009, as compared to 10,490 in 2008. The significant year-on-year increase 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

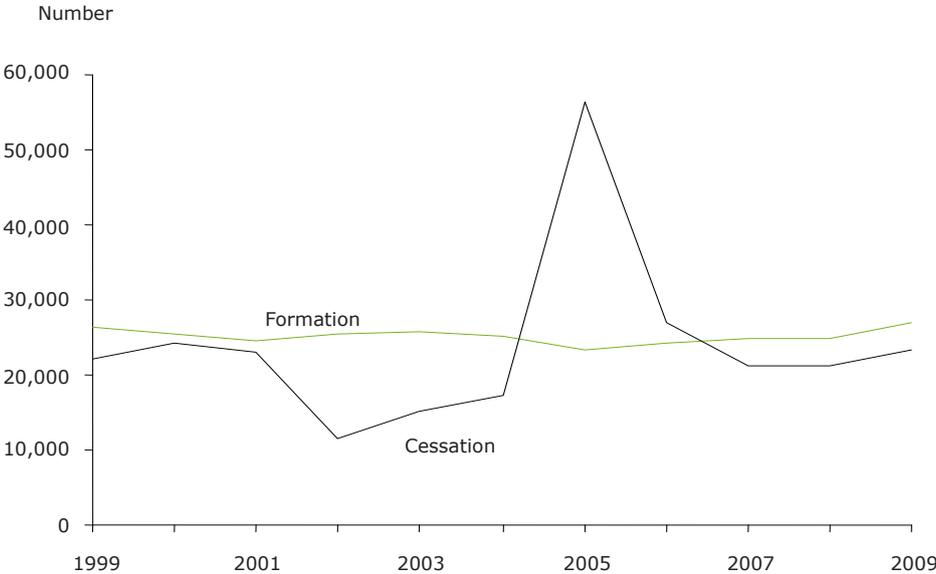
The number of business formations grew 8.2 per cent, from 24,850 in 2008 to 26,880 in 2009.

Growths in business formations were experienced across most major industries. Significant increases in business formations were recorded in financial & insurance services (52 per cent), as well as real estate activities and professional, scientific & technical activities (36 per cent each).

On the contrary, business formations decreased for manufacturing (10 per cent), transport & storage services (8.8 per cent), and construction (6.0 per cent).

The number of business cessations in 2009 increased by 11 per cent to 23,410, as compared to 21,140 in 2008. All major industries recorded higher business cessations in 2009, with the highest numbers from education, health & social work activities and professional, scientific & technical activities (25 per cent each), construction (16 per cent), as well as real estate activities (13 per cent).

CHART 2 FORMATION AND CESSATION OF BUSINESSES



National Health Survey 2010

By
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The Ministry of Health (MOH) is conducting the National Health Survey (NHS) 2010 between March and June 2010. Data collected will provide baseline information for the National Healthy Lifestyle Programme¹ and create a basis for future development of health programmes that would help to improve the health of Singapore residents.

The NHS 2010 is the fourth in a series of surveys conducted once every six years to assess and monitor the health of the Singapore population. The latest survey content has been updated to accommodate changes in the healthcare environment.

Survey Content

The survey content for NHS has evolved through the years. In 1992, there were only a few topics of interest. Today, the list of topics has expanded to include elderly health, mental health and care-giving.

For NHS 2010, the diseases, medical conditions, and health indicators to be studied include:

- Alcohol consumption
- Diabetes
- High blood cholesterol

- Hypertension
- Obesity
- Smoking
- Physical activity
- Hearing loss
- Mental health
- Preventive cancer screening
- Self reported health conditions
 e.g. asthma, arthritis.

Sample Design

The NHS 2010 covers non-institutionalised Singapore residents (Singapore citizens and permanent residents). The sampling plan follows a multistage design.

At the first stage, sampling divisions within close proximity of the designated survey sites are chosen. Dwelling units of each selected sampling division are then stratified by house-type and systematically selected at the second stage. The eventual sample is representative of the house-type distribution of the whole housing population in Singapore.

All selected households are notified by post. Thereafter, house visits are made to enumerate all members of the households who fall within a specified age range. In the final stage, a disproportionate

¹ The National Healthy Lifestyle Programme is a programme that aims to raise awareness among Singaporeans of the importance of a healthy lifestyle, and to provide them with the knowledge and skills to adopt healthy lifestyle practices.

stratified sampling design is used to select a random sample of 7,500 individuals who were identified during the enumeration exercise. These individuals are first stratified by age and ethnic group and then systematically selected.

Data Collection Procedures

Prior to the commencement of fieldwork, an invitation letter is mailed to each of the 7,500 selected survey participants. The invitation letter provides information on the survey appointment date, time, venue and fasting instructions. Reminder letters are sent and phone calls made nearer to the participants' appointment dates.

On the actual day of the survey, participants are expected to go to their appointed survey sites where they are required to give their consent to participate in the survey. Participants then undergo a health screening and a face-to-face interview using a structured questionnaire.

Innovative Approaches to Data Collection

As non-response may bias the survey results, several innovative data collection approaches will be adopted for the NHS 2010 to increase the response rate.

Online Submission for Household Enumeration Exercise

Given the current widespread availability of Internet access in Singapore, online submission via MOH website was introduced for the Household Enumeration Exercise

as an additional mode of submission to snail mail and fax. Available 24 hours a day throughout the enumeration period, the online application allowed households to submit the data at their convenience and privacy. For households who did not submit their returns through any of these three modes, fieldworkers would visit them to enumerate the household members.

Health Screening and Face-to-Face Interviews on Weekends

Previous NHS was conducted on weekdays (Tuesdays to Fridays) and Saturdays. It was noted that fewer participants visited their appointed survey site on weekdays compared to Saturdays. Hence, for NHS 2010, appointments for health screenings and face-to-face interviews of the participants will be conducted from Wednesdays to Fridays, Saturdays and Sundays, including the public holiday Labour Day. This arrangement is expected to result in a higher response rate.

Lucky Draw

For NHS 2010, participants can take part in a lucky draw with attractive prizes in the form of vouchers. The lucky draw, together with tokens of appreciation, is intended to make it attractive to participate in the NHS.

Extended Opening of Selected Survey Sites for Participants Who Missed Their Appointments

In the past, there were participants who missed their appointments despite

letter and phone reminders and were thus unable to take part in the survey. For NHS 2010, one more survey site will remain open for an extended period to cater to participants who miss their earlier survey appointments.

Increase in Value of Token of Appreciation

Participants of NHS 2004 were presented with a \$10 NTUC Fairprice voucher and a souvenir mug each as tokens of appreciation. For NHS 2010, each participant will receive a \$40 NTUC Fairprice voucher as an incentive for participating in the survey.

Concluding Remarks

A publicity campaign which includes blogs, posters and media publicity will be rolled out to create awareness of the NHS 2010 among the public. Invitation letters and reminder letters would also be sent to the selected participants to inform them about the survey.

Cooperation and participation of the survey participants in NHS 2010 is very important because the resultant survey findings will help MOH to accurately assess the health of Singaporeans and draw up relevant health policies and programmes for all Singaporeans.

For more information on NHS 2010, please visit MOH website at www.moh.gov.sg

Overseas Visitors

The Singapore Department of Statistics (DOS) welcomed visitors from Abu Dhabi and New Zealand over the last six months. The visits provided an excellent platform for professional exchanges and sharing of best practices.

The topics discussed included the availability of use of administrative data, managing statistical data confidentiality and the strategies, and national classification standards. The topic of strategy, approach and challenges in implementing standard business reporting was also shared by one of the visitors.

New Zealand

- Statistics New Zealand

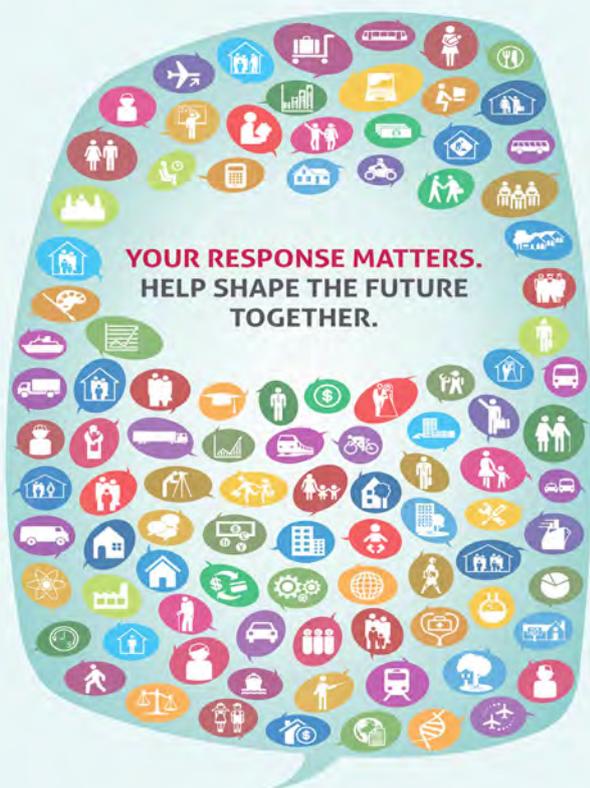
- Mr Patrick Ng
Deputy Government Statistician

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- Mr Salim Hamood Aljabri
Administrative Assistant

CENSUS of population 2010



The Singapore Department of Statistics is currently conducting the Census of Population 2010 (C2010). Households selected for C2010 will receive a notification letter anytime from March to July 2010. Household may complete the survey via Internet, telephone or face-to-face interview. More information about the census is available from the C2010 website at

www.singstat.gov.sg/c2010



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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.

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