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International Seminar on Economic Indicators and Business Cycles : Where Do We Stand?

The economic transition underway in Asia has called to mind the increasing importance of good statistical frameworks for measuring and tracking economic performance. As is true in the industrial economies, the relationship between growth cycles and business cycles is important in understanding the economic dynamics in Asia. Composite indices provide early warning signals of an impending economic slowdown or downturn. Thus, there is a need for high quality economic indicators and proper methods for identifying and analysing business cycles.

In recognition of the above, the Singapore Department of Statistics and The Conference Board (TCB), USA, jointly organised the "International Seminar on Economic Indicators and Business Cycles : Where Do We Stand?" from 26–27 May 2004. The seminar provided a forum for practitioners from economic planning and statistical agencies to exchange views on the importance, relevance and compilation of high quality economic indicators and their relevance to business cycle dynamics. Attended by over sixty representatives from Abu Dhabi, ASEAN, China, Hong Kong, India, Japan, Macao, Singapore, Statistical Institute for Asia and the Pacific (SIAP), and TCB, this seminar reinforced the appreciation of business cycle dynamics and their analytical methodologies, as well as the need for high quality economic indicators.

In his keynote address, Prof Emeritus Victor Zarnowitz, Senior Fellow and Economic Counselor of TCB, a leading authority on business cycles, reviewed the history and changes in business cycles within the context of the evolution of modern economies. He further elaborated on the difference between business cycles and growth cycles. In essence, while business cycles refer to the levels of the seasonally adjusted aggregates of economic indicators measuring the overall economic activity, growth cycles refer to the deviation from long term trends in the same series.

During the panel discussion, Prof Zarnowitz reiterated that the conventional 'two consecutive quarters of negative growth in real GDP', used as a convenient rule of thumb in defining recession, is neither a sufficient nor necessary condition. Consequently, he advised that the identification of recessions through coincident indicators would be better and more appropriate. Dr Choy Keen Meng of the National University of Singapore (NUS) also

noted that Singapore's economic growth is largely characterised by growth cycles instead of business cycles. Hence, he suggested that the 'two consecutive quarters' rule of thumb might not be appropriate in identifying recessions in Singapore as this method understates the underlying fluctuations in the Singapore economy.

Participants noted that national statistical offices face an increasing demand for more timely economic statistics with greater coverage and quality. They shared their countries' experiences in dealing with the problems on data availability, benchmarking and methodology, with a view of the growing importance on obtaining and using accurate and reliable economic information. During an interactive round-table discussion, several participants discussed about the issues and problems encountered in analyzing economic indicators for the construction of composite indices and dating business cycles. Participants agreed that as composite indices use a reasonably large number of economic indicators to measure what is largely a macroeconomic phenomenon, they are likely to be fairly stable even when estimates for some of the component indicators are subsequently revised.

At the concluding session, participants concurred that the seminar was unique in bringing together not just statisticians but also economists, academics and other data users. The sharing of experiences and practices enhanced mutual understanding and appreciation of growth and business cycles, and the importance of good economic statistics.

The papers and seminar proceedings are available from http://www.singstat.gov.sg/conferences/business/main.html.

Singapore Clinics : Profile and Performance

By
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Introduction

The healthcare services industry in Singapore has expanded significantly in recent years. Its value added rose at an average annual rate of 10.3 per cent between 1995 and 2002. In terms of its contribution to Gross Domestic Product (GDP), it accounted for 1.8 per cent in 2002 compared to 1.4 per cent in 1995 (Chart 1).

Singapore's healthcare system comprises primary health care provision at private medical practitioners' clinics and outpatient polyclinics, and secondary and tertiary specialist care in the private and public hospitals. Chart 2 shows the various components that make up Singapore's healthcare system.

CHART 1 HEALTHCARE SERVICES' GDP CONTRIBUTION, 1995–2002

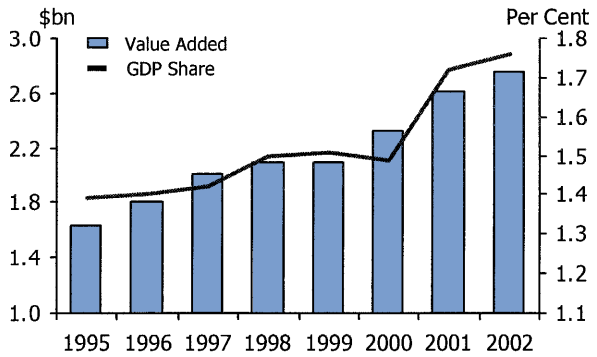
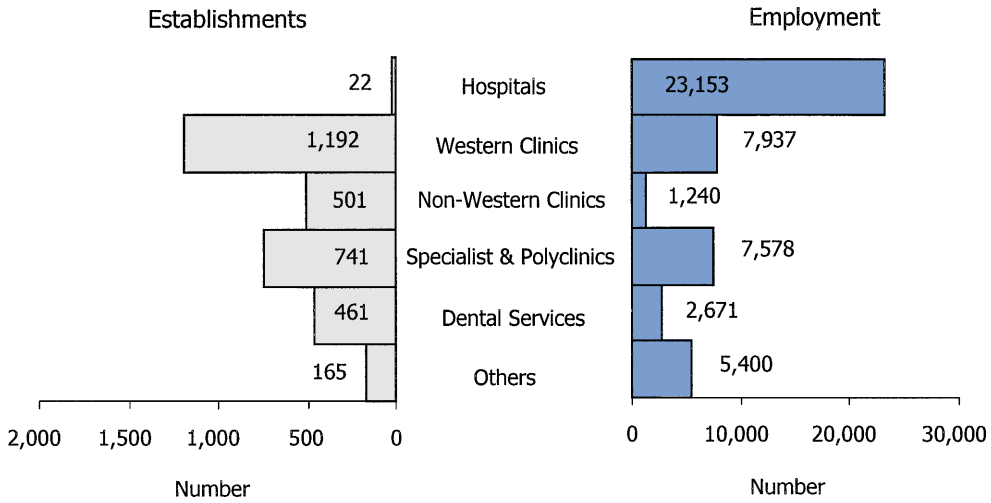


CHART 2 COMPONENTS OF HEALTHCARE SERVICES, 2002



This paper looks at the two broad categories of private practitioner clinics, namely, western clinics (not including polyclinics, specialised medical services or dental clinics) and non-western clinics (mainly traditional chinese medicine firms). A summary, comparing their key characteristics, is provided in Table 1. The paper examines, in detail, their characteristics in 2002/2003 (preliminary data), and compares their growth and performance over the years. Data are mainly sourced from the Department of Statistics' Annual Survey of Services.

TABLE 1 KEY SUMMARY DATA ON CLINICS, 2002[1]

	Western Clinics	Non-Western Clinics
No. of Clinics	1,192	501
Ave Annual Growth in No. of Clinics, 1995–2002 (%)	5.2	6.5
% of Clinics in CBD[2]	11.5	15.9
Ave Employment Size (No.)	6.7	2.5
% of Workers who are Doctors[3]	26.4	45.1
Ave No. of Doctors Per Clinic	1.8	1.1
Ave Patient Visits Per Doctor (No.)	6,269	4,801
Ave Fee Per Patient Visit ($)	60.7	26.5
% Profitable (excluding Non-Profit Organisations)	89.6	99.8
Ave Value Added Per Worker ($'000)	59.0	28.5

1 Exclude Polyclinics.
2 Refers to end-2003.
3 For non-western clinics, refers to traditional or alternative medicine practitioners.

Profile of Clinics

Faster Growth of Non-Western Clinics

The number of western and non-western clinics rose from 836 and 323 respectively in 1995 to 1,192 and 501 in 2002 (Table 2). Over this period, the growth of non-western clinics had been higher (6.5 per cent) than western clinics (5.2 per cent).

TABLE 2 ESTABLISHMENTS AND EMPLOYMENT, 1995 & 2002

	1995	2002	Average Annual Growth (%)
Establishments			
Total of which:			
Western Clinics	836	1,192	5.2
Non-Western Clinics	323	501	6.5
Healthcare Services	2,114	3,082	5.5
Employment			
Total of which:			
Western Clinics	5,116	7,937	6.5
Non-Western Clinics	927	1,240	4.2
Healthcare Services	26,679	47,979	8.7

However, employment in non-western clinics had increased at a slower pace (4.2 per cent) than western clinics (6.5 per cent). This was because non-western clinics' growth came mainly from small clinics, while the increase for western clinics was contributed by large ones. Annual employment growth for the overall healthcare services was higher than both western or non-western clinics (8.7 per cent).

Non-Western Clinics Smaller than Western Clinics

Table 3 shows that majority of the non-western clinics operated on a small-scale basis with less than 3 workers. A typical set-up would comprise a medical practitioner and a nurse/administrative staff attending to the waiting patients and dispensing the medicine. Some medical practitioners have no supporting staff, but provide medical treatments and prescriptions themselves. A larger set-up could have two medical practitioners and two or three nurses/ administrative staff. This was also typical of western clinics.

TABLE 3 DISTRIBUTION OF CLINICS BY EMPLOYMENT SIZE, 1995 & 2002

Employment Size	1995		2002	
	Western Clinics	Non-Western Clinics	Western Clinics	Non-Western Clinics
Less Than 3	153	239	116	406
3 – 4	294	51	370	65
5 – 9	285	19	567	16
10 & Above	104	14	139	14

For Western clinics, there was a shift in the predominance of clinics from employment size of 3-4 workers in 1995 to 5-9 workers in 2002, marking an expansion in their operations. The growth for non-western clinics, however, came primarily from the smallest employment category, that is, clinics with less than 3 workers.

More Supporting Staff in Western Clinics

The larger size of western clinics as compared to non-western clinics was due to the higher proportion of supporting staff such as nurses and administrative assistants. Table 4 shows that only 26 per cent of workers in western clinics were doctors, while the proportion of medical practitioners for non-western clinics was higher at 45 per cent.

TABLE 4 NUMBER AND PROPORTION OF DOCTORS, 2002

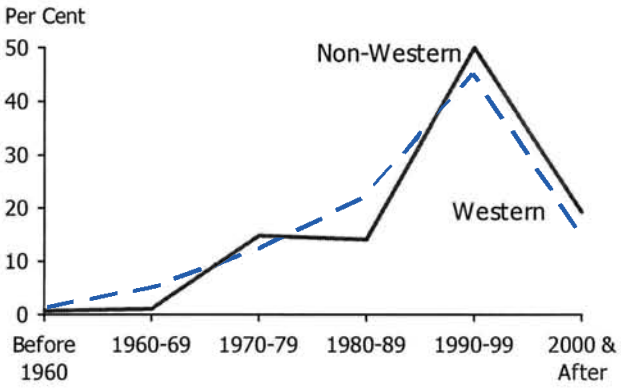
	Western Clinics	Non-Westen Clinics
Total Employment	7,937	1,240
No. of Doctors	2,098	559
% of Doctors	26.4	45.1

Non-Western Clinics Younger Than Western Clinics

Majority of the clinics that were operating in Dec 2003 had been set up in the 1990s (Chart 3). As a result of the higher growth of non-western clinics in recent years, a greater proportion of them were younger (70 per cent) as compared to the western clinics (60 per cent).

In terms of location, majority of the clinics were found outside the Central Business District (CBD). Among western clinics, about 11 per cent were located within CBD compared with 16 per cent for non-western clinics.

CHART 3 DISTRIBUTION OF CLINICS BY START-UP YEAR, AS AT DEC 2003



Performance of Clinics

Profitability Ratio

Non-western clinics had a higher profitability ratio (28 per cent vs 20 per cent) than western clinics (Table 5) due to the larger presence of small firms and the higher profitability ratio of these firms.

A comparison by location shows that clinics in the CBD generally had higher profitability ratios than those outside CBD. This was true for both western and non-western clinics.

TABLE 5 PROFITABILITY RATIOS[1] BY EMPLOYMENT SIZE AND LOCATION, 2002

Per Cent

	Western Clinics	Non-Western Clinics
Overall	**19.7**	**27.8**
Employment Size		
Less Than 3	40.7	40.0
3 – 4	46.9	22.2
5 – 9	23.2	22.5
10 & Above	8.0	6.4
Location		
CBD	24.0	33.0
Non-CBD	19.3	27.2

1 Defined as the ratio of operating surplus to operating receipts multiplied by 100. Data excludes non-profit organisations.

Main Cost Items

Remuneration was the main cost item for western clinics, both within and outside CBD (Table 6). However, for non-western clinics, supplies constituted the major expense item for those located outside CBD, while those sited within CBD disbursed more on remuneration.

TABLE 6 MAIN COST ITEMS, 2002

Per Cent

Location	Remuneration	Rental	Supplies[1]	Utilities
Western Clinics				
All	46.7	7.0	18.3	0.6
CBD	50.7	11.8	21.8	0.6
Non-CBD	46.3	6.6	18.0	0.6
Non-Western Clinics				
All	24.4	12.0	45.9	2.2
CBD	34.9	14.8	21.8	1.5
Non-CBD	23.4	11.8	48.1	2.3

1 Supplies refer to purchases made solely for operational purposes, eg medicines, surgical gloves, etc.

Foreign Patients and Share of Medical Fees

Western clinics had a higher proportion (20 per cent) of foreign patients than non-western clinics (3 per cent). It was likely that the foreign patients visited the western clinics for their more advanced medical and diagnostic services (Table 7). The local non-western clinics, on the other hand, faced strong competition from the more established TCM centres in China, Hong Kong and Taiwan.

Correspondingly, the proportion of fees received from foreign patients were smaller for non-western clinics (3.1 per cent) as compared to western clinics (31 per cent).

TABLE 7 PATIENTS AND MEDICAL FEES BY SOURCE, 2002

	Western Clinics	Non-Western Clinics
Total Patients[1] ('000)	**13,152**	**2,684**
Foreign Patients[2] ('000)	2,657	73
% Foreign	20.2	2.7
Total Fees ($m)	**798.9**	**71.1**
Fees from Foreign Patients[2] ($m)	250.4	2.2
% Foreign	31.3	3.1

1 By visits.

2 Foreign defined as non-Singapore Citizens, non-Permanent Resident, and **including** foreigners working and residing in Singapore.

Share of Value Added from Non-Western Clinics

Despite their rapid growth in number, non-western clinics' share of value added constituted only a small proportion in the healthcare services industry (Table 8). Their value added of $35 million made up

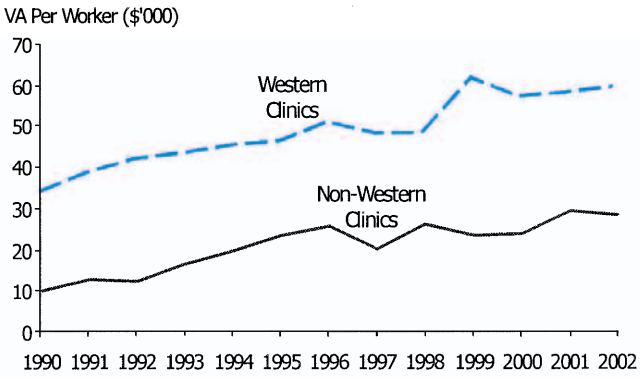
only 1.2 per cent of the entire healthcare services sector's market share in 2002, as compared to the significant share of 16 per cent contributed by western clinics. This was due principally to their smaller presence in Singapore.

TABLE 8 VALUE ADDED OF CLINICS, 1995 & 2002

	1995 ($M)	2002 ($M)	Average Annual Growth (%)
Overall Healthcare Services	**1,483.8**	**3,010.1**	**10.6**
Western Clinics	235.1	468.6	10.4
% Contribution	15.8	15.6	–
Non-Western Clinics	21.7	35.4	7.2
% Contribution	1.5	1.2	–

At per worker level, the value added for both western and non-western clinics had been on a general rising trend from 1990 to 2002 (Chart 4). However, the value added for workers in non-western clinics was about $25,000–$30,000 lower than their western counterparts throughout this period.

CHART 4 VALUE ADDED PER WORKER, 1990–2002



Conclusion

The contribution of non-western clinics to the Singapore economy remained small relative to the western clinics. Net employment creation and value added per worker were lower than the western clinics. This was primarily due to the dominance of smaller firms within the non-western clinics. Notwithstanding this, the number of non-western clinics had been growing at a marginally faster pace than western clinics in recent years. The continued emphasis of Singapore as a healthcare hub will see an increasing demand for the services of both western and non-western clinics.

SingStat Time Series Online

As part of our continuing effort to improve our services, the Singapore Department of Statistics has recently developed SingStat Time Series (STS) Online.

STS is a web-based, user-friendly time series retrieval system designed to enhance the accessibility of historical and current time series data on the Singapore economy and society to a wider range of data users. It presently includes over 5,000 statistical time series from several domains, including national accounts, balance of payments, investments, finance, labour, prices, business expectations, trade, manufacturing, tourism, demography, health and education.

Updated daily and with an easy to use search engine and personalised portals, local and overseas subscribers are now able to search, select and retrieve important, timely and relevant time series data from any web browser.

Economists, researchers and other data users will find STS a valuable resource at their fingertips. More information and subscription details can be accessed via this link (http://www.singstat.gov.sg/sts).

Household Balance Sheet, 2003

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Introduction

As noted in the occasional paper 'Wealth and Liabilities of Singapore Households' released by the Singapore Department of Statistics (DOS) in March 2003, Singapore households have been able to accumulate fairly substantial net wealth on the back of good economic growth and high savings.

This article, which updates the household balance sheet to end-2003, shows the continuing accumulation of both financial and non-financial assets (primarily residential property assets) by Singapore households. In line with the improving economic environment since mid-2003, household net wealth increased from S$575 billion as at end-2002 to S$610 billion as at end-2003.

Concepts and Definitions

The household balance sheet shows the stocks of households' assets and liabilities at a particular point in time (Table 1). Net wealth is defined as the value of assets less liabilities.

Households' assets can be either financial or non-financial assets. Financial assets include currency, deposits with banks, shares and securities, equity in pension funds (mainly CPF balances) and equity in life insurance reserves (attributable to households as policyholders). Non-financial assets are mainly residential property assets. Households' (financial) liabilities comprise personal loans (from banks and other financial institutions) and mortgage loans (from the Housing & Development Board, banks and other financial institutions).

TABLE 1 SINGAPORE'S HOUSEHOLD BALANCE SHEET

Assets	Liabilities / Net Weath
I Assets	**II Liabilities (Loans)**
1 Non-Financial Assets	1 Mortgages
(a) Public Housing	(a) Private Housing Loans
(b) Private Housing	(b) HDB Loans
2 Financial Assets	2 Personal and Other Loans
(a) Currency and Deposits	
(b) Shares and Securities	
(c) Equity in Pension Fund (CPF Balance)	
(d) Equity in Life Insurance	**III Net Wealth (I – II)**

Household Net Wealth Increased in 2003

Household net wealth increased by 6.1 per cent between 2002 and 2003. Total assets rose by 5.6 per cent or S$40 billion, while financial liabilities increased by 3.6 per cent or S$5.5 billion (Table 2). The increase in total assets was contributed by household savings in currency, deposits and CPF balances as well as the rise in the prices of HDB flats.

Wealth Ratios Comparable to Developed Countries

The ratios of household net wealth to personal disposable income (PDI) and to Gross Domestic Product (GDP) are commonly used to assess the relative sizes of household net wealth in international comparisons.

Singapore's wealth ratios compared very favorably to the Organisation for Economic Co-operation and Development (OECD) countries (Table 3). Among the selected OECD countries, Singapore's ratio of net wealth to PDI at 700 per cent in 2000, was the highest. This ratio was substantially higher than that for Japan and the United States. Singapore's ratio of net wealth to GDP, at 358 per cent in 2000, was comparable to that for United States and France, but lower than that for Japan and United Kingdom (Table 3).

TABLE 3 COUNTRY COMPARISON OF NET WEALTH RATIOS, 2000 (As At Year-End)

Per Cent

	Household Net Wealth/ PDI	Household Net Wealth/ GDP
Singapore	**700**	**358**
United States	471	344
Japan	633	425
France	525	340
United Kingdom	631	425

TABLE 2 NET WEALTH OF SINGAPORE HOUSEHOLDS (As At Year-End)

	Amount (S$ Billion)			Change (%)	
	2001	2002	2003	2002	2003
Net Wealth	**570.82**	**574.88**	**609.81**	**0.7**	**6.1**
Total Assets	**717.35**	**726.13**	**766.56**	**1.2**	**5.6**
Financial Assets	369.24	381.12	407.56	3.2	6.9
Currency & Deposits	163.13	160.24	170.64	–1.8	6.5
Shares & Securities	70.60	74.69	78.43	5.8	5.0
Equity in Life Insurance	43.26	49.73	54.91	15.0	10.4
Equity in Pension Funds/CPF	92.25	96.46	103.58	4.6	7.4
Residential Property Assets	348.11	345.01	359.00	–0.9	4.1
Financial Liabilities	**146.53**	**151.25**	**156.76**	**3.2**	**3.6**
Mortgage Loans	105.79	112.06	116.43	5.9	3.9
Personal & Other Loans	40.74	39.19	40.32	–3.8	2.9

Figures are calculated in Singapore million dollars and may not add up due to rounding.

Net Wealth Ratios Have Risen

In line with the increase in net wealth, the ratios of household net wealth to PDI and to GDP increased to 712 per cent and 383 per cent respectively in 2003 (Table 4).

TABLE 4 NET WEALTH RATIOS
(As At Year-End)

	2001	2002	2003
Net Wealth			
As Per Cent of PDI	675	674	712
As Per Cent of GDP	370	364	383

Structure of Financial Assets Remained Stable

The structure of households' assets had remained relatively stable over the past three years. Traditional financial assets (ie currency and bank deposits) continued to account for the largest share. The relatively safe financial assets and investments (such as pension funds and life insurance) came next, accounting for 21 per cent of total household assets. Singapore households' exposure to equities and securities was modest, at about 10 per cent of total assets in 2003.

TABLE 5 COMPOSITION OF HOUSEHOLD ASSETS IN SINGAPORE (As At Year-End)

Per Cent

	2001	2002	2003
Total Assets	**100.0**	**100.0**	**100.0**
Financial Assets	**51.5**	**52.5**	**53.2**
Currency & Deposits	22.7	22.1	22.3
Shares & Securities	9.8	10.3	10.2
Equity in Life Insurance/ Pension Fund	18.9	20.1	20.7
Equity in Life Insurance	6.0	6.8	7.2
Equity in Pension Funds/CPF	12.9	13.3	13.5
Residential Property Assets	**48.5**	**47.5**	**46.8**
Public Housing	25.9	26.0	26.0
Private Housing	22.6	21.5	20.9

Figures may not add up due to rounding.

Household Wealth Mainly in Non-Financial (Residential Properties) Assets

The share of non-financial (residential properties) assets had declined from 49 per cent of total household assets in 2001 to 47 per cent in 2003. Nonetheless, non-financial assets had remained the most important component of household wealth in Singapore (Table 5). Compared to selected OECD countries, Singapore's households had a higher proportion of their wealth in non-financial assets (Table 6).

TABLE 6 SHARE OF RESIDENTIAL PROPERTY ASSETS IN HOUSEHOLD ASSETS, 2000
(As At Year-End)

	Per Cent
Singapore	51
United States	28
Japan	40
France	47
United Kingdom	39

Household Liabilities Mainly in Mortgage Loans

Household financial liabilities or borrowings in Singapore increased from S$147 billion as at end-2001 to S$157 billion as at end-2003. Mortgage loans constituted the largest component of household liabilities, accounting for almost three-quarters of the total. Personal and other loans accounted for the remaining quarter (Table 7).

TABLE 7 COMPOSITION OF HOUSEHOLD LIABILITIES IN SINGAPORE
(As At Year-End)

	2001	2002	2003
Total Liabilities (S$ Billion)	**146.5**	**151.3**	**156.8**
	As Per Cent of Total Liabilities		
Total Liabilities	**100.0**	**100.0**	**100.0**
Mortgage Loans	72.2	74.1	74.3
Private Housing Loans	29.7	31.5	35.4
HDB Loans	42.5	42.6	38.8
Personal Loans & Other Loans	27.8	25.9	25.7

The level of household borrowings, as measured by the ratio of financial liabilities to PDI, increased from 173 per cent in 2001 to 183 per cent in 2003. The ratio of household financial liabilities to GDP rose from 95 per cent to 99 per cent over the same period (Table 8).

TABLE 8 HOUSEHOLD FINANCIAL LIABILITIES RATIOS
(As At Year-End)

	2001	2002	2003
Financial Liabilities			
As Per Cent of PDI	173	177	183
As Per Cent of GDP	95	96	99

...Due Largely to Singapore's High Home Ownership

Singapore's household indebtedness, as measured by the ratios of outstanding loans to PDI and GDP, might appear to be high. However, it is a reflection of Singapore's high home ownership (about 92 per cent in 2000), of which a substantial proportion (about 85 per cent) is in public housing. The ratios of outstanding loans (rescaled to the average home ownership level of about 65 per cent in OECD countries) to PDI and GDP would be 121 per cent and 61 per cent respectively. If HDB loans were excluded, the ratios of outstanding loans would be about 98 per cent of PDI and 50 per cent of GDP in 2000. Both sets of adjusted ratios were comparable to those of the OECD countries (Table 9).

TABLE 9 HOUSEHOLD FINANCIAL LIABILITIES RATIO
(As At Year-End)

Per Cent

	Household Financial Liabilities/ PDI		Household Financial Liabilities/ GDP	
	1995	2000	1995	2000
Singapore	117	171	62	87
HDB Loans	34	73	18	37
Others	83	98	44	50
Private Housing Loans	38	51	20	26
Personal & Other Loans	45	47	24	24
United States	80	90	60	66
Japan	100	100	72	67
France	50	54	33	35
United Kingdom	107	116	74	78

Conclusion

Economic growth and high savings facilitated the accumulation of fairly substantial net wealth by Singapore households within a relatively short time. As a reflection of Singapore's home ownership policy, non-financial (residential properties) assets is the most important component of household net wealth. The increase in the net wealth of Singapore households, in tandem with the improving economic environment, has also resulted in higher net wealth ratios.

Softcopy of the occasional paper on *Wealth and Liabilities of Singapore Households* is available for sale from the SingStat DataShop which is accessible online through our Department's website (www.singstat.gov.sg).

Singapore's Demographic Trends in 2003

By
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Introduction

This article highlights the key trends in population, fertility, marriages and divorces in the year 2003.

Population Profile

Population Size and Growth

Singapore's total population was estimated to be 4,185,200 as at end-June 2003 (Table 1). There were 3,437,300 residents and 747,900 non-residents. Singapore residents, comprising Singapore citizens and Singapore permanent residents, formed 82 per cent of the total population.

Compared with June 2002, the total population increased by 13,900 persons or 0.3 per cent. The growth rate for 2003 was one of the lowest in the last decade. This was largely due to the decline in the non-resident population. The resident population grew by 1.7 per cent in 2003.

TABLE 1 POPULATION AND ANNUAL GROWTH

Year	Number ('000)			Average Annual Growth[1] (%)		
	Total Population	Singapore Residents	Non-Residents	Total Population	Singapore Residents	Non-Residents
1990	3,047.1	2,735.9	311.3	2.3	1.7	9.0
2000	4,017.7	3,263.2	754.5	2.8	1.8	9.3
2001	4,131.2	3,319.1	812.1	2.8	1.7	7.6
2002	4,171.3	3,378.3	793.0	1.0	1.8	– 2.4
2003	4,185.2	3,437.3	747.9	0.3	1.7	– 5.7

1 Refers to average annual growth during the last ten years. For 2001–2003, refers to growth over the previous year.

Age Structure

The age pyramid in Chart 1 shows the ageing of the resident population over the past two decades. The proportion of children below 15 years declined from 28 per cent in 1980 to 21 per cent in 2003. Over the same period, the proportion in the ages 15–64 years increased from 67 per cent to 72 per cent. The proportion of elderly residents aged 65 years and over also increased from 4.9 per cent to 7.7 per cent.

Reflecting the shift in the age structure, the median age of the resident population increased by 10.9 years between 1980 and 2003, from 24.4 years to 35.3 years.

Age Dependency Ratio

Following the change in age structure, the old age dependency ratio had risen while the child dependency ratio had fallen (Table 2). Overall, the total dependency ratio fell between 1980 and 2003.

CHART 1 AGE PROFILE OF RESIDENT POPULATION

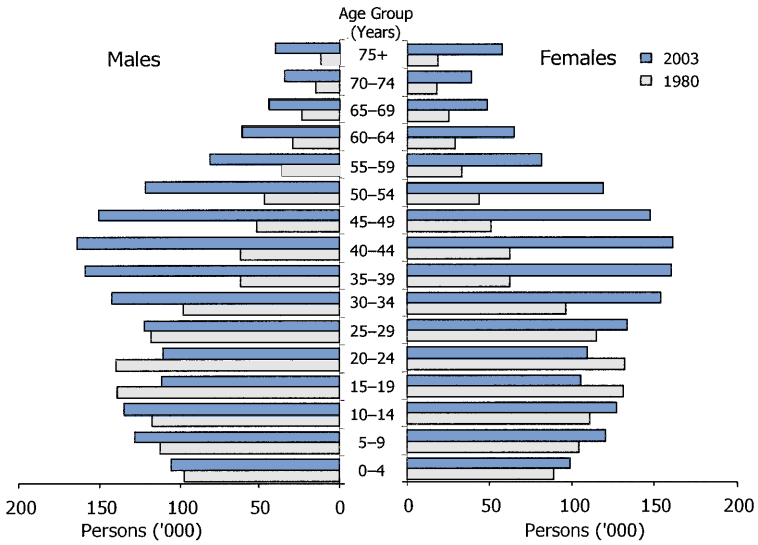


TABLE 2 AGE DEPENDENCY RATIOS OF THE RESIDENT POPULATION

Per 100 Residents Aged 15–64

Year	Total	Child (Under 15)	Old Age (65 & Over)
1980	48.2	41.0	7.3
1990	40.8	32.3	8.5
2000	40.4	30.1	10.2
2003	39.8	29.0	10.7

Marital Formation and Dissolution

Marriage Rates

In 2003, a total of 22,000 marriages were registered in Singapore (Table 3). This represented a decrease of 5.3 per cent from 23,200 marriages in 2002.

Marriage rates declined in 2003. The marriage rate was 44.0 per 1,000 unmarried resident males and 44.3 per 1,000 unmarried resident females in 2003, a decline from 47.5 and 47.8 in 2002 respectively.

TABLE 3 MARRIAGES

Year	Number	General Marriage Rates (Per Thousand Unmarried Residents)	
		Males	Females
1990	23,953	52.6	60.9
2000	22,561	49.5	51.5
2001	22,280	46.9	46.3
2002	23,198	47.5	47.8
2003	21,962	44.0	44.3

Marriage Timing and Remarriages

The trend towards older age at first marriage continued in 2003. The mean age at first marriage for men was 30.2 years, rising from 30.0 years the year before and 28.7 years in 1990 (Table 4). For women, the mean age at first marriage rose to 27.2 years in 2003 from 26.9 years in 2002 and 25.9 years in 1990.

Remarriages had become more common. In 2003, grooms who had been previously married constituted 14 per cent of all grooms. Among the brides, 12 per cent had been previously married. These proportions were higher than those recorded in 1990.

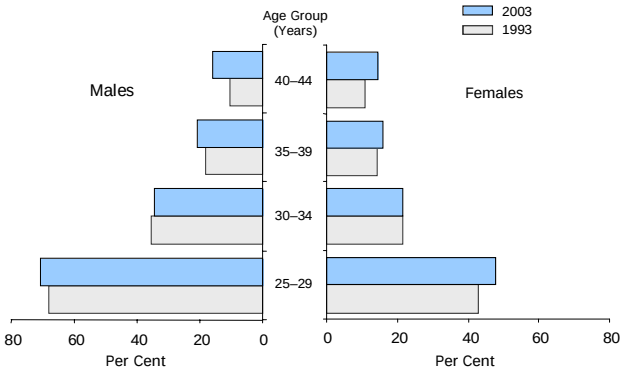
Proportion Single

Corresponding to the declining trend in marriage rates, proportionately more resident males and females had remained single. In 2003, some 15 per cent of resident males and females were still not married at age 40–44 years (Chart 2). This was higher than the 10–11 per cent in 1993.

TABLE 4 SELECTED CHARACTERISTICS OF GROOMS AND BRIDES

Year	Mean Age at First Marriage (Years)		Mean Age at Remarriage (Years)		Per Cent Remarried	
	Grooms	Brides	Grooms	Brides	Among Grooms	Among Brides
1990	28.7	25.9	39.7	33.7	8.1	6.6
2000	29.8	26.8	41.4	35.6	13.0	11.7
2001	29.9	26.8	41.6	35.5	13.4	11.6
2002	30.0	26.9	41.6	35.6	12.7	11.5
2003	30.2	27.2	41.5	35.6	13.8	12.3

CHART 2 PROPORTION SINGLE AMONG RESIDENT POPULATION



Marital Dissolutions

The number of divorces granted in 2003 reached a high of 6,300 (Table 5). This was an increase of 14 per cent over the previous year. Correspondingly, divorce rates peaked at 7.8 per 1,000 married resident males and 8.0 per 1,000 married resident females in 2003.

TABLE 5 DIVORCES

Year	Number	General Divorce Rates (Per Thousand Married Residents)	
		Males	Females
1990	3,150	6.1	6.1
2000	4,943	6.7	6.7
2001	4,838	6.3	6.4
2002	5,538	7.1	7.2
2003	6,293	7.8	8.0

The mean age at divorce also increased for both males and females. In 2003, the mean age at divorce for males was 40.0 years, an increase from 39.8 years in 2002 and 36.7 years in 1990 (Table 6). For females, the mean age at divorce increased from 33.1 years in 1990 to 36.5 years in 2003.

TABLE 6 MEAN AGE AT DIVORCE

Years

Year	Males	Females
1990	36.7	33.1
2000	39.7	36.3
2001	39.8	36.3
2002	39.8	36.5
2003	40.0	36.5

Fertility

Fertility Rates

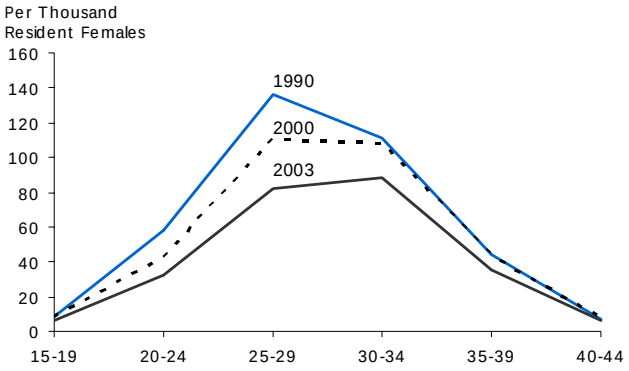
There was a total of 37,500 live-births in 2003, a drop of 8.0 per cent compared with the previous year (Table 7). The total number of live-births in 2003 was a historical low. Correspondingly, Singapore's total fertility rate (TFR) in 2003 was a low of 1.25 babies per resident female. Among the main ethnic groups, the Chinese continued to have the lowest TFR at 1.07 in 2003.

TABLE 7 TOTAL BIRTHS AND TOTAL FERTILITY RATES

Year	Total Births (No.)	Total Fertility Rates (Per Resident Female)			
		Total	Chinese	Malays	Indians
1990	51,142	1.83	1.65	2.69	1.89
2000	46,997	1.60	1.43	2.54	1.58
2001	41,451	1.41	1.21	2.44	1.50
2002	40,760	1.37	1.18	2.29	1.50
2003	37,485	1.25	1.07	2.13	1.36

Fertility rates declined in all age groups in 2003 compared with 1990 and 2000 (Chart 3). Since 1990, the fertility rate for the age group 20–24 years had almost halved. The fertility rate for the age group 25–29 years had also fallen considerably.

CHART 3 AGE SPECIFIC FERTILITY RATES



Completed Family Size

Females still tend to have two to three children during their marriage. On average, ever-married resident females aged 40–49 years had 2.1 children in 2003 (Table 8).

Family size had remained relatively stable for females with secondary or higher education. For less-educated females, their family size had declined and converged to the same level as the better-educated females.

TABLE 8 MEAN NUMBER OF CHILDREN BORN TO RESIDENT EVER-MARRIED FEMALES AGED 40–49 YEARS

Number

Year	Total	Below Secondary	Secondary	Post-Secondary	University
1990	2.8	3.0	2.1	2.1	2.0
2000	2.2	2.4	2.1	2.0	1.9
2003	2.1	2.2	2.1	2.0	1.9

Mortality

Mortality Rates

The mortality rate in Singapore remained low (Table 9). The crude death rate was 4.4 per 1,000 residents in 2003, a decline from the 4.7 deaths per 1,000 residents in 1990. The infant mortality rate was 2.5 per 1,000 resident live-births in 2003. This was significantly lower than the rate of 6.6 per 1,000 resident live-births in 1990.

Reflecting the general decrease in death rates, life expectancy at birth continued to increase. A boy born in 2003 could expect to live 77 years, while a girl could expect to live 81 years.

TABLE 9 MORTALITY RATES AND LIFE EXPECTANCY AT BIRTH

	1990	2000	2001	2002	2003
Crude Death Rate (Per 1,000 Residents)	4.7	4.5	4.4	4.4	4.4
Infant Mortality Rate (Per 1,000 Resident Live-Births)	6.6	2.5	2.2	2.9	2.5
Life Expectancy At Birth (Years)	75.3	78.1	78.4	78.6	78.9
Males	73.1	76.1	76.4	76.6	76.9
Females	77.6	80.1	80.3	80.6	80.9

Educational Upgrading through Private Educational Institutions, 2003

By
Lee Su Jun
Business Statistics Division
Singapore Department of Statistics

Introduction

Based on the Education Services Survey 2003[1], there were about 170 private educational institutions[2]. Student enrolment[3] reached 119,500, while the number of graduates totalled 35,600 in 2003.

Of the 170 institutions, 140 offered programmes in collaboration with overseas educational institutions. Some 89,000 students were enrolled in these external educational programmes. Graduates from the external courses numbered 22,300 in 2003.

Business Profile

On average, the private educational institutions employed 33 workers and received earnings of about $3.4 million per firm in 2003 (Table 1). Small and medium sized firms dominated the industry. Large firms however, had a higher proportion of profitable businesses (78 per cent) as compared to small and medium firms (57 per cent and 60 per cent respectively).

Profile of Student Enrolment and Graduates

By Type of Course and Field of Study

Among the students enrolled in the private educational institutions in 2003, about one-third took up diploma courses (Chart 1). Correspondingly, graduates from diploma courses also constituted the largest share (40 per cent) of students graduating in that year. This course type is popular among the students as diploma qualifications are usually considered the first step to acquiring a tertiary education.

TABLE 1 PERFORMANCE OF PRIVATE EDUCATIONAL INSTITUTIONS, 2003

Firm Size	Proportion of Firms (%)	Proportion of Profitable Firms[1] (%)	Average Employment (No.)	Average Operating Receipts ($'000)
Total	**100.0**	**60.0**	**33.4**	**3,442.9**
< 10 Workers (Small)	43.1	56.9	4.9	746.1
10–99 Workers (Medium)	48.2	60.0	24.4	2,355.3
≥ 100 Workers (Large)	8.7	77.8	222.4	22,683.8

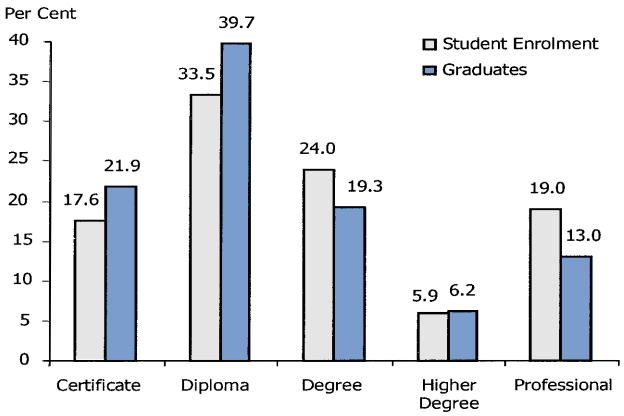
1 Exclude non-profit organisations.
Note : Data are based only on private educational organisations which were able to provide data on financial performance.

1 Data presented in the article are based on preliminary findings.

2 Comprise only private organisations which award certificate ('O' level, 'A' level or equivalent), diploma, degree, higher degree and professional qualifications as a result of formal learning and examination. Exclude certificates of course attendance and honorary qualifications.

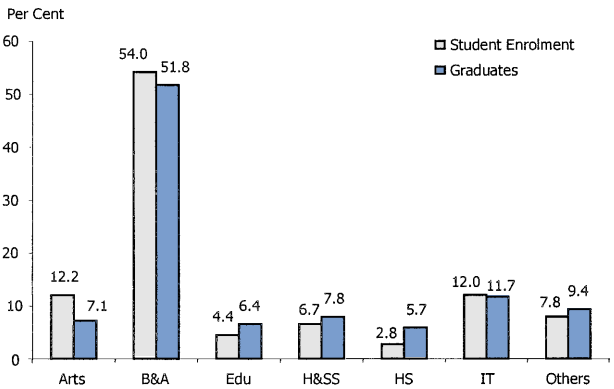
3 Includes students admitted in 2003, those who were admitted in previous years but still in the programme in 2003 as well as those who passed their examinations and completed the course in 2003. Graduates in 2003 constituted part of student enrolment.

CHART 1 PER CENT DISTRIBUTION OF STUDENT ENROLMENT AND GRADUATES BY COURSE TYPE, 2003



About 54 per cent of the enrolled students were pursuing courses in Business and Administration (Chart 2). Graduates from the field of Business and Administration formed the largest proportion (52 per cent) of students graduating in 2003. Other courses with significant proportion of enrolments were Information Technology (12 per cent of total enrolment), Fine and Applied Arts (12 per cent) and Humanities and Social Sciences (7 per cent).

CHART 2 PER CENT DISTRIBUTION OF STUDENT ENROLMENT AND GRADUATES BY FIELD OF STUDY, 2003



Abbreviations Used:

Arts – Fine & Applied Arts
B&A – Business & Administration
Edu – Education
H&SS – Humanities & Social Sciences
HS – Health Sciences
IT – Information Technology

By Gender and Age Group

More female than male students were enrolled in courses organised by the private educational institutions in 2003. The proportion of female graduates was also higher at 61 per cent (Table 2). The female-male ratios for enrolled students and graduates were 1.4 and 1.6 respectively.

Majority of the enrolled students and graduates in private educational institutions were younger than 30 years old. This group formed about 65 per cent and 58 per cent of the total enrolment and graduate count respectively in 2003. In contrast, those who were 40 years or older constituted less than 12 per cent of both student enrolment and graduates. It is likely that the younger age group perceives educational upgrading not only as an important step in the pursuit of additional knowledge or acquiring of new skills, but also as a means for career advancement.

TABLE 2 STUDENT ENROLMENT AND GRADUATES BY GENDER AND AGE GROUP, 2003

Per Cent

	Student Enrolment	Graduates
Gender		
Males	42.1	39.1
Females	57.9	60.9
Age Group		
Below 30	64.5	58.4
30–39	26.4	29.7
40 & Above	9.1	11.9

Note : Data are based only on private educational institutions which were able to provide breakdown on gender and age group.

Formation and Cessation of Companies and Businesses, January–June 2004

Companies

The number of new companies formed reached 8,165 in 1H04, an increase of 11 per cent over 2H03. This represented the fifth consecutive half-yearly increase in company formation since 1H02. All major industries recorded positive growth. In particular, the transport and communications, as well as manufacturing industries registered strong company formation rates of 24 per cent and 21 per cent respectively.

The number of companies which ceased operations during 1H04 dropped sharply by 43 per cent to 2,810. The decrease occurred in all major industries, ranging from 37 per cent to 49 per cent.

Businesses

A total of 12,879 new businesses were set up in 1H04. This represented a decrease of 4.5 per cent compared with 2H03. More new businesses were formed in the construction (8.1 per cent) and manufacturing (4.7 per cent) industries while declines in business formation were recorded for the other major industries in 1H04.

The number of business closures dipped by 1.9 per cent from 4,882 in 2H03 to 4,789 in 1H04. The construction industry reported the largest decrease of 10 per cent in business cessation. In contrast, the transport and communications industry registered a rise of 11 per cent in the number of ceased businesses during the same period.

CHART 1 FORMATION AND CESSATION OF COMPANIES

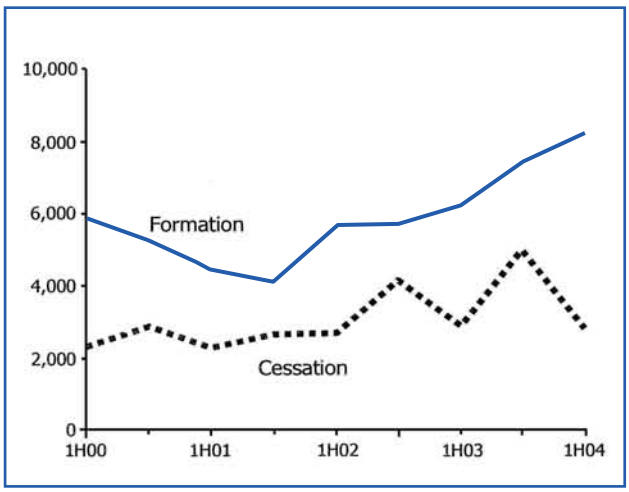
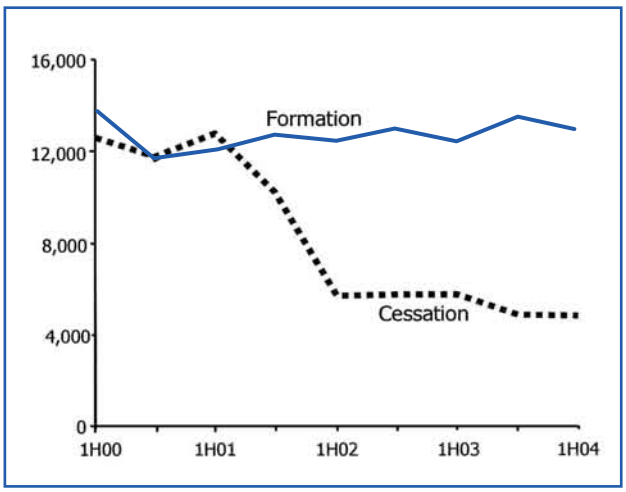


CHART 2 FORMATION AND CESSATION OF BUSINESSES



New Appointments

We are pleased to announce the appointment of Mrs Leow Bee Geok as Acting Chief Statistician of the Department of Statistics (DOS) with effect from 1 June 2004. Ms Wong Wee Kim has also been appointed as Deputy Chief Statistician, and Director of the Business Statistics Division, with effect from 1 August 2004.

Mrs Leow, who joined the Statistician Service in 1972, was the Director of DOS's Household Statistics and Prices Division as well as its Corporate Services Division prior to her current appointment. Ms Wong was seconded from the Economic Development Board (EDB), where she previously held the position of Director of Enterprise Ecosystem & Planning.

Dr Paul Cheung, who was the Chief Statistician of the DOS and Singapore's National Statistical Coordinator since 1990, has left the Department to take up an appointment as Director of United Nations Statistics Division, with effect from 1 June 2004.

Contents

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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Email : info@singstat.gov.sg

Overseas Visitors

The Singapore Department of Statistics received the following visitors in the past six months. Topics discussed include the compilation of international accounts, financial statistics, and statistics on international trade in statistics, the methodology and compilation of national accounts, population register, data dissemination and electronic services.

Australia
– ***Australian Bureau of Statistics***
International Investment Division
- Mr Paul Mahoney
  Director

Hong Kong SAR
– ***Census & Statistics Department***
- Mrs Ou-Yang Fong, Lily
  Assistant Commissioner

Oman
– ***Ministry of National Economy***
Economic Survey Department
- Mr Khalid Said Al Mudhafar
  Director

Sweden
– ***Karolinska Institutet***
Division of International Health
- Prof Hans Rosling
  Head

Taiwan
– ***WTO Center***
Chung Hua Institution for Economic Research
- Mr Wang Lee Rong
  Research Fellow