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Yearbook of Statistics Singapore

2002

SINGAPORE DEPARTMENT OF STATISTICS



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PREFACE

The Yearbook of Statistics Singapore, 2002 is the thirty-fifth edition of an annual series published by the Singapore Department of Statistics. The publication provides a comprehensive, current statistical record of the key socio-demographic and economic characteristics of Singapore. Users are able to get a snapshot picture of the Singapore economy and population based on the latest available information.

Improvements are continuously made to the Yearbook to enhance its value to users. New data series on topics of interest are added as and when appropriate. Since 1968 when the Yearbook was first released, the number of tables in the publication has increased from 124 to 264.

In addition to this Yearbook, the Department disseminates official statistics on Singapore through a variety of electronic services. These include the Statistics Singapore Home Page, SingStat DataShop and Time Series Retrieval and Dissemination System. Internet users can now purchase softcopies of statistical publications through the DataShop. For users who have specific data needs, the Department's Statistical Information Services offers personalized assistance on cost-recovery basis.

The data series in the Yearbook are compiled by the Singapore Department of Statistics and other government departments and statutory boards. I would like to extend my grateful thanks to all the organisations that have contributed to the success of this publication for the past thirty-five years. I look forward to their continued support.

Dr Paul Cheung
Chief Statistician
Singapore

May 2002

Our

Mission

To develop and manage a national statistical information system of quality and integrity to support Singapore's social and economic development.

Performance Pledge

We pledge to maintain high service standards in meeting the data needs of local and overseas users :

Accessibility *We provide a wide range of products and services which are readily accessible by the general public.*

Relevance *We make special efforts to improve the relevance of statistical data to meet user needs.*

Reliability *We benchmark ourselves against international best practices in statistical activities and adopt rigorous quality assurance standards.*

Timeliness *We strive for the earliest possible release of data, while balancing the need to maintain data quality.*

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NOTES ON CHANGES AND REVISIONS

From time to time, changes are made to the Yearbook of Statistics Singapore to maintain its currency and relevance. Such changes include addition of new series and replacement of existing series as a result of revision necessitated by changed circumstances. In this edition, the following changes are made :

New Tables

The following two tables are included : -

Table 10.5	Total Output by Industry
Table 20.7	Immunisation Coverage for Children who Reached 1 Year and 2 Years of Age

Replacement of Existing Series

The following five tables replace the previous series: -

Table 11.6	Approval, Construction Commencement and Completion of Commercial and Industrial Developments
Table 17.4	Government Operating Expenditure
Table 17.5	Government Development Expenditure
Table 18.12	Private Property Price Index by Type of Property
Table 18.13	Commercial Property Rental Index by Type of Property

Other Changes

The following two tables (in previous edition) have been discontinued: -

Table 4.21	Participants in Training Courses Conducted by Singapore Productivity and Standards Board
Table 11.2	Water Treatment and Sales

Table 24.1 Electricity Generation and Sales and Table 24.2 Gas Sales are listed under the Miscellaneous Section.

[illegible]

KEY INDICATORS

1.1 NATIONAL INCOME

Year	Gross National Product (GNP) \$ M	Per Capita GNP \$	Gross National Saving \$M	Gross Capital Formation \$M	Gross Domestic Product \$M	Gross Fixed Capital Formation \$M
	At Current Market Prices				At 1990 Market Prices	
1991	75,325.6	24,021	34,181.6	25,750.7	71,183.4	24,469.2
1996	130,129.7	35,454	65,307.1	47,581.5	110,729.5	45,542.4
1997	149,450.4	39,394	81,045.5	54,137.2	120,190.8	49,937.8
1998	145,872.7	37,193	78,807.7	45,827.5	120,081.2	46,914.4
1999	143,507.2	36,323	72,672.1	44,659.7	128,404.5	45,056.1
2000	160,913.4	40,051	77,961.3	50,514.6	141,571.5	47,892.4
2001	154,644.5	37,433	69,292.3	37,248.5	138,682.6	45,675.9
Percentage Change Over Previous Year						
1991	10.3	7.2	13.9	5.8	7.1	13.4
1996	7.2	3.0	5.4	16.4	7.7	23.1
1997	14.8	11.1	24.1	13.8	8.5	9.7
1998	-2.4	-5.6	-2.8	-15.3	-0.1	-6.1
1999	-1.6	-2.3	-7.8	-2.5	6.9	-4.0
2000	12.1	10.3	7.3	13.1	10.3	6.3
2001	-3.9	-6.5	-11.1	-26.3	-2.0	-4.6

1.2

INFLATION, LABOUR AND BUSINESS COSTS

Year	Measures of Inflation			Unit Labour Cost Index		Unit Business Cost Index of Manufacturing (1993 = 100)
	Consumer Price Index (Nov 97-Oct 98 = 100)	Domestic Supply Price Index (1995 = 100)	Gross Domestic Product Deflator (1990 = 100)	Overall Economy (1993 = 100)	Manufacturing (1993 = 100)	
1991	88.1	109.8	104.0	97.6	96.3	97.6
1996	98.0	97.0	115.8	107.7	97.8	101.6
1997	100.0	93.1	116.7	108.4	98.6	101.5
1998	99.7	90.1	114.6	112.7	97.4	100.9
1999	99.8	92.0	109.1	101.0	81.0	90.6
2000	101.1	101.3	112.9	100.8	77.8	91.2
2001	102.1	99.6	110.7	108.2	87.3	96.5
Percentage Change Over Previous Year						
1991	3.4	-4.1	4.0	6.6	6.5	4.8
1996	1.4	-3.0	1.1	2.6	2.4	0.5
1997	2.0	-4.0	0.8	0.7	0.8	-0.1
1998	-0.3	-3.2	-1.8	4.0	-1.2	-0.6
1999	0.0	2.1	-4.8	-10.4	-16.9	-10.2
2000	1.3	10.1	3.5	-0.2	-3.9	0.7
2001	1.0	-1.6	-1.9	7.3	12.2	5.7

1.3 MANUFACTURING AND BUILDING & CONSTRUCTION

Year	Manufacturing			Building & Construction ²			
	Net Investment Commitments	Total Output ¹	Index of Industrial Production ¹ (1999=100)	Written Permission	Building Plan Approval	Building Commencement	Building Completion
	Million Dollars			Thousand Square Metres of Gross Floor Area			
1991	2,934.0	76,132	58.0	na	na	na	na
1996	8,085.1	122,579	84.3	na	na	na	na
1997	8,488.4	129,484	88.1	na	na	na	na
1998	7,829.5	124,658	87.8	4,064	3,880	2,003	4,957
1999	8,037.4	136,937	100.0	2,862	1,845	2,087	3,348
2000	9,208.9	163,721	115.3	3,594	2,415	2,725	3,457
2001	9,171.7	134,619	102.0	2,979	2,333	2,798	2,589
Percentage Change Over Previous Year							
1991	18.0	4.7	5.5	na	na	na	na
1996	18.7	5.7	3.3	na	na	na	na
1997	5.0	5.6	4.5	na	na	na	na
1998	-7.8	-3.7	-0.3	na	na	na	na
1999	2.7	9.9	13.9	-29.6	-52.4	4.2	-32.5
2000	14.6	19.6	15.3	25.6	30.9	30.6	3.3
2001	-0.4	-17.8	-11.5	-17.1	-3.4	2.7	-25.1

1 Refer to establishments engaging 10 or more workers.

Total output refers to manufacturing output and other operating income.

2 Figures exclude hostels, HDB flats, tenement houses, parsonages and Executive Condominiums.

The series have been revised. Data prior to 1998 are not available.

1.4

EXTERNAL TRADE AND TOURISM

Year	External Trade					Tourism	
	Total	Exports			Imports	Visitors Arrivals ¹	Hotel Rooms Available ²
		Total	Domestic Exports	Re-exports			
Million Dollars						Thousand	Number
1991	216,074.4	101,879.5	66,031.1	35,848.4	114,194.9	5,414.7	22,700
1996	361,455.3	176,271.9	103,588.8	72,683.2	185,183.4	7,292.4	27,604
1997	382,217.7	185,612.5	107,535.2	78,077.3	196,605.2	7,197.9	27,313
1998	353,626.8	183,763.3	105,917.6	77,845.7	169,863.5	6,242.2	27,412
1999	382,431.2	194,289.6	116,324.9	77,964.7	188,141.6	6,958.2	27,542
2000	470,001.4	237,826.3	135,938.0	101,888.3	232,175.1	7,691.4	28,212
2001	425,718.4	218,026.3	118,444.3	99,581.9	207,692.1	7,522.2	27,859
Percentage Change Over Previous Year							
1991	5.4	7.0	5.2	10.5	4.0	1.7	1.3
1996	5.1	5.2	5.2	5.3	5.0	2.2	4.9
1997	5.7	5.3	3.8	7.4	6.2	-1.3	-1.1
1998	-7.5	-1.0	-1.5	-0.3	-13.6	-13.3	0.4
1999	8.1	5.7	9.8	0.2	10.8	11.5	0.5
2000	22.9	22.4	16.9	30.7	23.4	10.5	2.4
2001	-9.4	-8.3	-12.9	-2.3	-10.5	-2.2	-1.3

1 Exclude arrivals of Malaysians by land.

2 Refer to gazetted hotels.

1.5 TRANSPORT AND COMMUNICATIONS

Year	Cargo Handled					International Telephone Call Minutes ²
	Air ¹		Sea		Container Throughput	
	Discharged	Loaded	General	Bulk		
	Tonnes		Thousand Tonnes		Thousand TEUs	
1991	342,261	300,948	108,184	98,245	6,354	284
1996	622,019	568,438	175,083	139,081	12,944	579
1997	696,778	639,570	185,559	141,948	14,136	697
1998	651,568	632,093	172,968	139,354	15,136	791
1999	756,771	743,622	188,553	137,349	15,945	859
2000	848,269	834,220	199,577	126,014	17,087	1,048
2001	780,638	726,424	186,076	127,411	15,571	2,561
Percentage Change Over Previous Year						
1991	5.6	0.4	14.6	5.2	21.7	18.3
1996	7.7	7.7	3.1	2.5	9.3	5.3
1997	12.0	12.5	6.0	2.1	9.2	20.4
1998	-6.5	-1.2	-6.8	-1.8	7.1	13.5
1999	16.1	17.6	9.0	-1.4	5.3	8.6
2000	12.1	12.2	5.8	-8.3	7.2	22.0
2001	-8.0	-12.9	-6.8	1.1	-8.9	144.5

1 Refer to Changi Airport only.

2 Exclude calls to Malaysia. Figures prior to 1996 are based on financial year.
Figures from 1998 include Real-Time Fax and Budgetcall Services.

1.6 GOVERNMENT FINANCE

Year	Operating Revenue ¹	Operating Expenditure ²	Development Expenditure ³	Public Debt ⁴		
				Total	Domestic	External
	Million Dollars					
1991	14,851.6	7,805.3	3,524.7	59,041.1	59,000.3	40.8
1996	28,038.3	12,253.6	6,920.7	94,830.7	94,830.7	-
1997	30,612.7	15,159.0	10,705.9	102,371.9	102,371.9	-
1998	28,212.6	14,236.3	10,557.2	115,183.4	115,183.4	-
1999	28,619.2	13,907.4	11,039.3	125,777.1	125,777.1	-
2000	33,526.6	18,896.9	9,077.6	134,370.4	134,370.4	-
2001	30,885.1	17,845.5	9,998.6	146,995.5	146,995.5	-
Percentage Change Over Previous Year						
1991	13.4	10.5	-16.5	14.8	14.9	-39.9
1996	13.1	12.6	48.2	9.6	9.6	-
1997	9.2	23.7	54.7	8.0	8.0	-
1998	-7.8	-6.1	-1.4	12.5	12.5	-
1999	1.4	-2.3	4.6	9.2	9.2	-
2000	17.1	35.9	-17.8	6.8	6.8	-
2001	-7.9	-5.6	10.1	9.4	9.4	-

1 Refer to receipts credited to the Consolidated Revenue Account and Development Fund Account, but excludes investment income and capital receipts.

2 Refer to Expenditure on Manpower, Other Operating Expenditure (excluding expenses on investment and agency fees on land sales), Grants-in-Aid and Pensions (up to first quarter 1995).

3 Exclude loans to statutory boards and industrial and commercial enterprises.

From FY2001, land-related expenditure items are no longer classified under Development Expenditure. These expenditures are therefore excluded from the period April to December 2001.

4 Refer to end of year.

1.7 BANKING AND FINANCE

End of Year	Money Supply (M1)	Official Foreign Reserves	Total Assets / Liabilities			
			Commercial Banks	Merchant Banks	Finance Companies	Asian Currency Units
			Million Dollars			
1991	16,430.0	55,802.8	136,093.4	30,022.5	12,459.8	357,725.0
1996	27,040.0	107,750.8	252,723.4	53,580.6	21,189.4	506,870.2
1997	27,510.9	119,616.8	289,572.3	66,661.2	22,210.6	557,193.5
1998	27,239.1	124,584.4	309,974.5	60,545.4	21,941.9	503,609.9
1999	31,109.1	128,457.0	326,295.4	56,999.6	20,742.4	480,399.4
2000	33,261.9	139,260.0	344,005.8	59,871.2	19,801.1	486,452.7
2001	36,082.9	139,942.1	384,631.0	56,398.4	14,961.1	471,392.3

Percentage Change Over Previous Year						
1991	7.7	15.0	1.6	-7.2	9.1	-8.4
1996	6.7	10.7	12.5	6.6	0.3	6.0
1997	1.7	11.0	14.6	24.4	4.8	9.9
1998	-1.0	4.2	7.0	-9.2	-1.2	-9.6
1999	14.2	3.1	5.3	-5.9	-5.5	-4.6
2000	6.9	8.4	5.4	5.0	-4.5	1.3
2001	8.5	0.5	11.8	-5.8	-24.4	-3.1

End of Year	Commercial Banks		Finance Companies			CPF
	Deposits of Non-Bank Customers	Advances to Non-Bank Customers ¹	Deposits from Individuals & Institutions	Loans for		Amount Due to Members
				Hire Purchase of Motor Vehicles	Housing	
	Million Dollars					
1991	72,241.1	64,009.1	8,972.1	1,674.7	1,523.9	46,049.0
1996	118,201.5	126,987.7	15,071.6	4,052.3	3,221.1	72,566.6
1997	124,143.0	143,243.8	15,611.8	3,975.2	3,721.7	79,657.4
1998	162,310.3	151,640.9	15,344.6	3,555.2	3,821.2	85,276.8
1999	174,454.1	147,185.5	14,321.9	3,860.4	3,500.1	88,396.9
2000	171,316.4	154,042.1	13,645.9	5,094.6	2,768.0	90,298.3
2001	182,551.4	162,920.8	10,641.4	4,054.2	1,884.7	92,221.2

Percentage Change Over Previous Year						
1991	12.9	10.9	6.8	11.4	-5.1	13.3
1996	8.6	16.5	-2.2	-12.9	22.1	9.9
1997	5.0	12.8	3.6	-1.9	15.5	9.8
1998	30.7	5.9	-1.7	-10.6	2.7	7.1
1999	7.5	-2.9	-6.7	8.6	-8.4	3.7
2000	-1.8	4.7	-4.7	32.0	-20.9	2.2
2001	6.6	5.8	-22.0	-20.4	-31.9	2.1

1 Include bills financing.

1.8 POPULATION AND LAND AREA

Year	Mid-Year Population		Land Area	Population Density	Median Age ²	Dependency Ratio ³	Sex Ratio ²
	Total ¹	Resident					
	Thousand		Square Kilometres	Per Square Kilometre	Years	Per Hundred	Males Per 1,000 Females
1991	3,135.8	2,795.4	639.1	4,907	30.2	40.9	1,025
1996	3,670.4	3,067.8	647.5	5,669	32.4	41.3	1,008
1997	3,793.7	3,121.1	647.8	5,856	32.8	41.1	1,006
1998	3,922.0	3,174.8	648.1	6,052	33.2	40.8	1,003
1999	3,950.9	3,221.9	659.9	5,987	33.7	40.6	1,001
2000	4,017.7	3,263.2	682.7	5,885	34.2	40.4	998
2001	4,131.2	3,319.1	682.3 ⁴	6,055	34.6	40.4	996

1 Total population comprises Singapore residents and foreigners staying in Singapore for at least 1 year.

2 Refer to Singapore residents (citizens and permanent residents).

3 Residents under 15 years and those 65 years and over divided by residents aged 15 -64 years.

4 Figure was generated from the Lot Base System based on Cadastral maps as at 6 January 2002 .

Prior to 2001, data were based on topo map area.

1.9 VITAL STATISTICS

Year	Population Growth Rate	Rate of Natural Increase	Crude Birth Rate	Crude Death Rate	Infant Mortality Rate	Total Fertility Rate	Gross Reproduction Rate
	Per Cent	Per 1,000 Population			Per 1,000 Live-births	Per 1,000 Female Population Aged 15-44 years	
1991	2.2	12.5	17.1	4.6	5.4	1,730	838
1996	1.8	10.5	15.2	4.7	3.6	1,661	797
1997	1.7	10.0	14.5	4.5	3.6	1,607	773
1998	1.7	8.5	13.1	4.6	4.1	1,473	714
1999	1.5	8.3	12.8	4.5	3.3	1,465	701
2000	1.3	9.2	13.7	4.5	2.5	1,598	766
2001	1.7	7.6	11.9	4.4	2.2	1,416	681

Note : Data refer to Singapore residents (citizens and permanent residents).

1.10 EMPLOYMENT

Year	Labour Force ¹	Unemployment Rate ¹	Labour Force Participation Rate ¹			CPF Contributors in Labour Force	Union Members Among Employed
			Total	Males	Females		
	Thousand		Per Cent				
1991	1,554.3	1.6	64.8	79.8	50.5	67.7	14.2
1996	1,801.9	2.2	64.6	78.7	51.5	66.3	14.6
1997	1,876.0	1.8	64.2	78.3	51.1	65.3	14.2
1998	1,931.8	2.4	63.9	77.5	51.3	62.0	14.6
1999	1,976.0	3.5	64.7	77.8	52.7	62.0	15.4
2000	2,192.3	3.3	68.6	81.1	55.5	58.1	15.0
2001	2,119.7	2.6	65.4	77.8	54.3	59.9	16.5

1 Refer to persons aged 15 years and over in June of the respective years. Data for 2000 are from Census of Population. Unemployment rates were seasonally adjusted.

1.11 HEALTH

Year	Life Expectancy at Birth			Doctors	Dentists	Nurses ¹	Per Capita Government Expenditure on Health ²
	Total	Males	Females				
	Years			Per 10,000 Population			Dollar
1991	75.7	73.5	77.9	12	2	33	201
1996	76.6	74.5	78.9	13	2	36	319
1997	76.9	74.9	79.1	13	2	38	309
1998	77.3	75.3	79.4	13	2	39	317
1999	77.6	75.6	79.7	13	2	39	276
2000	78.1	76.1	80.1	14	3	40	305
2001	78.4	76.4	80.4	14	3	41	387

1 Refer to registered and enrolled nurses.

2 Exclude expenditure of restructured hospitals. Refer to only government health expenditure which includes government subventions to restructured hospitals.

1.12 EDUCATION AND LITERACY

Year	Pupils Per Teacher		Combined Gross Enrolment Ratio ¹	Literacy Rate ²	Residents Aged 25 Years & Over ³	
	Primary	Secondary			Mean Years of Schooling	% with Secondary or Higher Qualification
	Number					
1991	26	21	79.8	89.4	6.8	38.7
1996	26	22	86.4	91.2	7.6	46.1
1997	25	21	87.6	91.5	7.8	46.5
1998	25	20	86.9	91.9	8.0	48.7
1999	25	19	87.1	92.2	8.1	49.6
2000	25	19	87.5	92.5	8.6	54.7
2001	25	20	87.0	93.2	8.4	52.4

Year	Passes At			Annual Output		
	PSLE ⁴	GCE 'O' Level ⁵	GCE 'A' Level ⁶	ITE ⁷	Polytechnic ⁸	University ⁹
	Per Cent			Number		
1991	89.8	89.9	83.0	7,832	7,164	5,987
1996	95.5	90.8	85.4	5,581	12,105	8,218
1997	95.7	90.3	84.2	4,918	12,919	8,679
1998	95.0	91.1	86.0	6,234	13,904	9,331
1999	96.2	92.1	86.5	8,501	14,641	9,463
2000	95.8	92.3	85.6	8,427	15,073	9,406
2001	96.7	93.5	87.7	8,263	15,966	9,859

1 Defined as resident students enrolled in primary, secondary and pre-university classes, Institute of Technical Education (ITE) and tertiary institutions divided by resident population aged 6-20 years.

2 Refer to resident population aged 15 years and over.

3 Refer to non-students.

4 From 1993, figures refer to students eligible for secondary schools.

5 At least 3 'O' level passes.

6 At least 2A and 2AO level passes including General Paper.

7 Refer to trainees who completed full-time institutional training or traineeship programmes.

8 Refer to graduates from full-time and part-time diploma courses.

9 Refer to first degree graduates from National University of Singapore and Nanyang Technological University.

1.13 PUBLIC HOUSING AND UTILITIES USAGE

Year	Public Housing ¹				Domestic Electricity Consumption Per Resident	
	Public Flats		Per Cent of Population ⁴ Living in		Kilowatt Hour	
	Total ² Number Managed	Per Cent ³ Owner-occupied	Public Flats	Owner-occupied Public Flats		
1991	626,313	88	87	82	950.8	
1996	725,144	91	86	81	1,357.0	
1997	755,313	91	86	81	1,517.7	
1998	790,898	91	86	82	1,678.3	
1999	823,760	92	86	82	1,658.7	
2000	846,649	93	86	82	1,754.8	
2001	863,552	93	85	82	1,803.1	

1 Refer to flats managed by Housing and Development Board.

2 As at end of year.

3 Percentage of sold flats over total units under management.

4 Data from 1990 refer to resident population.

1.14 CULTURAL, RECREATION AND PUBLIC SAFETY

Year	Cable Vision Subscribers ¹	TV Licences ¹	Cinema Attendances	Loan of Library Books ²	Daily Newspaper Circulation	Crime Rate ³ Per 100,000 Population
	Per 1,000 Population					
1991	-	213	6,613	2,891	297	1,652
1996	19	222	4,702	3,871	292	1,132
1997	33	192	4,573	5,931	288	1,038
1998	45	222	4,181	5,947	287	1,078
1999	64	210	3,739	6,266	291	911
2000	78	233	3,345	6,109	298	807
2001	91	246	3,283	6,709	384	693

1 Indicator is computed based on resident population.

2 Refer to books loaned from National Library.

3 Singapore Police Force has revised the crime rates to exclude Immigration Act Offences handled by the Police.

1.15 OTHER SOCIAL INDICATORS

Year	Residential Telephone Lines	Mobile Phone Subscribers ¹	Pager Subscribers	Dial-up Internet Subscribers	Private Cars	Public Buses ¹
	Per 1,000 Resident Population					
1991	257	24	119	-	93	3
1996	302	110	336	42	114	3
1997	319	196	421	86	116	3
1998	337	260	412	124	113	3
1999	347	372	372	181	113	3
2000	353	608	257	595	114	3
2001	348	692	145	578	115	3

¹ Indicator is computed based on total population.

2.1

AIR TEMPERATURE AND SUNSHINE

CLIMATE AND AIR QUALITY

2

	1992	1993	1994	1995	1996	1997
Geography	The Republic of Singapore, is located between latitudes 1° 09' N and 1° 29' N and longitudes 103° 36' E and 104° 25' E. The land area of Singapore is approximately 682.7 square kilometres. This comprises the main island and a number of islets scattered off its north-east and south. The main island measures about 42 kilometres from east to west and 23 kilometres from north to south with a coastline of 150.2 kilometres. Singapore can be divided into three major areas - the central area with heavy deposits of granite in Bukit Timah, Bukit Panjang, Bukit Mandai and Bukit Batok; the western undulating area comprising Mount Faber Ridge and Pasir Panjang Ridge and the eastern coastal area consisting of 1008 islets and sediment stretches from Sentosa to Bedok and Changi.					
Climate	The main features of the climate in Singapore are the relatively stable temperature throughout the year due to its close proximity to the Equator and high humidity and abundant rainfall due to the maritime exposure of the island. The average maximum and minimum temperatures are around 32°C and 25°C respectively. The relative humidity is usually between 65 and 70 per cent on dry afternoons but frequently exceeds 90 per cent in the early					
Air Quality	The ambient air quality in Singapore is continuously monitored by the Ministry of the Environment through the Environmental Air Monitoring and Management System (EAMMS). The system comprises 17 remote air monitoring stations linked to a Central Control Station (CCS) via dial-up telephone lines. Fourteen of the monitoring stations monitor ambient air quality and three stations monitor road air quality. Automated analysers and equipment are deployed at the monitoring stations (see Annex 2). The concentrations of major air pollutants such as sulphur dioxide, oxides of nitrogen, carbon monoxide, ozone, hydrocarbon and respirable suspended particles (PM₁₀) are measured. The air quality in terms of Pollutant Standards Index (PSI) was 'good' on 83 per cent of the days and 'moderate' on 17 per cent of the days. The overall air pollution levels for 2001 were within the WHO Long Term Goals and the United States Environmental Protection Agency (USEPA) standards.					

2 CLIMATE AND AIR QUALITY

Geography

The Republic of Singapore, is located between latitudes 1° 09'N and 1° 29'N and longitudes 103° 36'E and 104° 25'E.

The land area of Singapore is approximately 682.3 square kilometres. This comprises the main island and a number of islets scattered off its north-east and south. The main island measures about 42 kilometres from east to west and 23 kilometres from north to south with a coastline of 150.5 kilometres.

Singapore can be geographically divided into three major areas – the central hilly area with heavy deposits of granite in Bukit Timah, Bukit Panjang, Bukit Mandai and Bukit Batok; the western undulating area comprising Mount Faber Ridge and Pasir Panjang Ridge and the eastern coastal area consisting of alluvium and sediment stretches from Katong to Bedok and Changi.

Climate

The main features of the climate of Singapore are the relatively stable temperature throughout the year due to its close proximity to the Equator and high humidity and abundant rainfall due to the maritime exposure of the island. The average maximum and minimum temperatures are around 32°C and 25°C respectively. The relative humidity is usually between 65 and 70 per cent on dry afternoons but frequently exceeds 90 per cent in the early

hours of the morning before sunrise. Although rain falls throughout the year, the wettest months are usually during the first part of the Northeast Monsoon season from November to January. During the Southwest Monsoon season, from May to September, early morning line squalls occasionally hit the island.

Air Pollution

The ambient air quality in Singapore is routinely monitored by the Ministry of the Environment through the Telemetric Air Quality Monitoring and Management System (TAQMMS). The system comprises 17 remote air monitoring stations linked to a Central Control Station (CCS) via dial-up telephone lines.

Fourteen of the monitoring stations monitor ambient air quality and three stations monitor roadside air quality. Automated analysers and equipment are deployed at the monitoring stations to measure the concentrations of major air pollutants such as sulphur dioxide, oxides of nitrogen, carbon monoxide, ozone, hydrocarbon and respirable suspended particles (PM 10).

The air quality in terms of Pollutant Standards Index (PSI) was 'good' on 83 per cent of the days and 'moderate' on 17 per cent of the days. The overall air pollution levels for 2001 were within the WHO Long Term Goals and the United States Environmental Protection Agency (USEPA) standards.

2.1 AIR TEMPERATURE AND SUNSHINE

	1991	1996	1997	1998	1999	2000	2001
Air Temperature in Degree Celsius							
Means							
Daily Maximum	31.5	31.3	32.4	32.1	31.3	31.4	31.3
Daily Minimum	24.7	24.5	25.3	25.3	24.7	24.7	24.9
Absolute Extremes							
Maximum	34.1	34.4	35.1	36.0	34.4	34.3	34.0
Minimum	22.0	22.1	22.0	22.5	21.6	20.2	21.5
Bright Sunshine							
Daily Mean Hours	5.4	5.6	5.7	5.7	5.4	5.2	5.2

Source : Meteorological Service

2.2 MEAN RELATIVE HUMIDITY AND RAINFALL

	1991	1996	1997	1998	1999	2000	2001
Mean Relative Humidity ¹							
at 2.00 pm (Per Cent)	71	72	66	71	73	73	73
Rainfall							
Total (mm)	1,877	2,418	1,119	2,623	2,134	2,371	2,783
Maximum in a day (mm)	130	94	66	84	77	128	211
Number of rainy days	146	170	116	177	177	188	184

Source : Meteorological Service

- 1 The ratio of the actual amount of water vapour in a given volume of air to the amount that would be present were the air saturated at the same temperature, expressed in percentages.

2.3 AIR POLLUTION LEVELS

	1996	1997	1998	1999	2000	2001
Sulphur Dioxide (Mean)(µg / m ³)						
Industrial	32	29	30	25	25	25
Urban	27	18	21	28	23	22
Sub-Urban	22	12	10	19	19	19
Nitrogen Dioxide (Mean)(µg / m ³)						
Industrial	39	41	38	43	34	25
Urban	33	33	40	38	35	31
Sub-Urban	23	23	24	29	22	22
PM 10 (Mean)(µg / m ³)						
Industrial	36	54	36	36	32	29
Urban	30	49	33	32	29	29
Sub-Urban	34	51	36	35	31	29
Carbon Monoxide (No of times 8-hourly mean value exceeded)						
Industrial	-	-	-	-	-	-
Urban	-	-	-	-	-	-
Sub-Urban	-	-	-	-	-	-
Ozone (No of times max 1-hour value exceeded)						
Industrial	-	-	-	-	-	-
Urban	-	-	-	-	-	-
Sub-Urban	-	-	-	-	-	-

Source : Ministry of the Environment

Notes : Standards for Air Quality

Sulphur Dioxide = 80 µg/m³ (annual mean), 122 µg/m³ (monthly mean)

Nitrogen Dioxide = 100 µg/m³ (annual mean), 153 µg/m³ (monthly mean)

PM 10 (Particulate Matter ≤ 10 microns) = 50 µg/m³ (annual mean), 76 µg/m³ (monthly mean)

Carbon Monoxide = 10 mg/m³ (8-hourly mean value)

Ozone = 235 µg/m³ (maximum 1-hour value)

All measurements of air quality are corrected to a reference temperature of 25°C and pressure of 760 mm of mercury.

Population Census

Singapore's first census was taken in April 1871. After that, regular censuses were undertaken at ten-year intervals up to 1931. The Second World War delayed the next census till 1947. In the pre-war censuses, Singapore was included as part of the Straits Settlements and, later, part of Malaya. Separate censuses for Singapore were carried out since 1947. Singapore conducted her first register-based Census in 2000. The other three post-independence censuses were conducted in 1970, 1980 and 1990. In 1995, Singapore also conducted her first mid-decade mini census.

In the 1990 and earlier Censuses, the population comprised citizens and permanent residents who were present and enumerated in Singapore on Census Day. In addition, citizens and permanent residents who were away for short periods of time during the Census, as well as foreigners staying or working in Singapore for one year or more, were included. With the change to the register-based approach in 2000, the "de jure" concept was adopted. All persons registered at their places of usual residence, under a valid address, were counted, even though they may be temporarily away on Census Day. Foreigners staying or working in Singapore for one year or more were also included.

Mid-Year Population Estimates

Singapore residents refer to citizens and those who have been granted permanent residence in Singapore. Total population comprises Singapore residents and foreigners (both working and non-working) staying in Singapore for at least one year.

Births and Deaths

The Registration of Births and Deaths Act (cap 267) specifies that a birth must be registered within 42 days of the date of birth. Births registered after 42 days from occurrence

are classified as late registrations. A birth registration after one year from the date of birth can only be effected with the written authority of the Registrar-General of Births and Deaths. Under the same Act, a death must be registered within 3 days of its occurrence. Still-births, which are classified separately from births and deaths, must be registered within 14 days of their occurrence.

Registration facilities for births and deaths are available at the Registry of Births and Deaths and at designated government hospitals. Deaths and still-births can also be registered at gazetted police stations/sub-stations/neighbourhood police posts. The registration system is comprehensive and the records of vital statistics are virtually complete.

Measures of natality and mortality include the crude birth and crude death rates. From 1981 onwards, these are defined as the number of live-births and deaths respectively of Singapore residents, per thousand mid-year resident population.

Marriages

Registration of marriages is compulsory in Singapore. Marriages other than Muslim marriages are registered under the Women's Charter, 1961. Notices of such marriages have to be lodged with the Registrar of Marriages regardless of the venue of solemnisation.

Registration of Muslim marriages in Singapore became compulsory from 1 July 1909 when the Mohammadan Marriage Ordinance, 1908 (Ordinance No.XXV of 1908) was enacted. This Ordinance was subsequently repealed and replaced by the Administration of Muslim Law Act, 1966.

Divorces

Pertinent information on Muslim divorces are compiled from records maintained by the Syariah Court while those on non-Muslim divorces are compiled from petitions

3 DEMOGRAPHY (cont'd)

submitted to the Supreme Court. Time-dependent variables, eg. the year of occurrence, age of divorcees, and duration of marriage are based on the date of registration for Muslim divorces and date decree made absolute for non-Muslim divorcees.

Definitions

Rates on fertility and reproduction refer to residents only.

Age-specific fertility rate : It refers to the number of births by mothers of a specific age group during a given year, per thousand females in that age group.

Total fertility rate (TFR): It is the average number of children that would be born per female, if all females lived to the end of their childbearing years and bore children according to a given set of age-specific fertility rates. It is derived by aggregating the age-specific fertility rates of females in each of the reproductive ages for a specific year.

Gross reproduction rate: It gives the average number of daughters produced by each female during her whole reproductive period and is similarly computed as in the case of TFR, on the basis of female births only. This rate implicitly assumes that all females live to the end of their childbearing years.

Net reproduction rate: It is a refinement of the gross reproduction rate, in that it takes into account the mortality of females from birth to the end of their reproductive years. It is the average number of female children that would replace one female if current fertility and mortality levels prevail. It is also the measure of replacement of population.

Age-specific marriage rate: It is defined as the number of persons within a specific age group marrying in a given year, out of every thousand unmarried persons in the same age group. From 1984 onwards, the rates refer to Singapore residents only.

Other References

Vital statistics on births and deaths are compiled and published monthly in the "Singapore Demographic Bulletin". The annual "Report on Registration of Births and Deaths" published by the Registrar-General of Births and Deaths also provides demographic and socio-economic characteristics of parents and characteristics of births, detailed causes of death, together with statistical tables and charts.

Annual data on marriages and divorces are available in the publication "Statistics on Marriages and Divorces". This publication analyses annual marriage trends and the socio-economic characteristics of grooms and brides, as well as provides insight into the nature of divorces and the socio-economic characteristics of divorcees.

3.1 POPULATION AND GROWTH RATE

Year	Total Population	Singapore Residents	Growth Rate	
			Total Population	Singapore Residents
		Thousand		Per Cent
Census				
1901	227.6	na	na	na
1911	303.3	na	2.9	na
1921	418.4	na	3.3	na
1931	557.7	na	2.9	na
1947	938.1	na	3.3	na
1957	1,445.9	na	4.4	na
1970	2,074.5	2,013.6	2.8	na
1980	2,413.9	2,282.1	1.5	1.3
1990	3,047.1	2,735.9	2.4	1.8
2000	4,017.7	3,263.2	2.8	1.8
Mid-Year Estimates				
1991	3,135.8	2,795.4	2.9	2.2
1992	3,232.1	2,851.1	3.1	2.0
1993	3,315.4	2,906.5	2.6	1.9
1994	3,421.1	2,961.4	3.2	1.9
1995	3,525.6	3,014.6	3.1	1.8
1996	3,670.4	3,067.8	4.1	1.8
1997	3,793.7	3,121.1	3.4	1.7
1998	3,922.0	3,174.8	3.4	1.7
1999	3,950.9	3,221.9	0.7	1.5
2000 (Census)	4,017.7	3,263.2	1.7	1.3
2001	4,131.2	3,319.1	2.8	1.7

Notes : Figures for 1980 and earlier Censuses refer to all persons present in Singapore and enumerated on Census Day.

From 1990 to 1999, data have been revised following the Census 2000 register-based approach. Figures from 2001 adopt the same concept.

Total population comprises all citizens and permanent residents with local residence and foreigners staying in Singapore for 1 year or more.

Singapore residents refer to citizens and permanent residents with local residence.

3.2 VITAL RATES

Year	Rate of Natural Increase	Crude Birth Rate	Crude Death Rate	Infant Mortality Rate	Total Fertility Rate	Gross Re- production Rate
	Per 1,000 Population			Per 1,000 Live-births	Per 1,000 Females Aged 15-44 years	
1950	33.4	45.4	12.0	82.2	na	na
1955	36.2	44.3	8.1	49.5	na	na
1960	31.3	37.5	6.2	34.9	5,756	2,775
1965	24.1	29.5	5.4	26.3	4,659	2,273
1970	17.0	22.1	5.2	20.5	3,065	1,490
1975	12.6	17.7	5.1	13.9	2,073	1,002
1980	12.7	17.6	4.9	8.0	1,818	879
1991	12.5	17.1	4.6	5.4	1,730	838
1996	10.5	15.2	4.7	3.6	1,661	797
1997	10.0	14.5	4.5	3.6	1,607	773
1998	8.5	13.1	4.6	4.1	1,473	714
1999	8.3	12.8	4.5	3.3	1,465	701
2000	9.2	13.7	4.5	2.5	1,598	766
2001	7.6	11.9	4.4	2.2	1,416	681

Notes : Figures prior to 1980 refer to total population.

From 1980, figures refer to Singapore residents (citizens and permanent residents).

3.3 MID-YEAR ESTIMATES OF SINGAPORE RESIDENTS BY AGE GROUP AND SEX

							Thousand
Age Group (Years)	1991	1996	1997	1998	1999	2000	2001
Males							
Total	1,414.7	1,540.4	1,565.2	1,589.8	1,611.6	1,630.3	1,656.0
0 - 4	121.9	124.2	122.2	118.5	114.0	110.3	110.0
5 - 9	107.1	125.2	130.6	132.7	131.2	129.9	128.4
10 - 14	104.1	108.8	108.1	111.1	117.9	121.7	127.5
15 - 19	112.5	104.5	105.2	107.8	108.0	109.1	109.1
20 - 24	118.9	116.3	113.7	108.7	106.6	106.5	107.7
25 - 29	146.4	129.2	129.2	130.4	131.2	129.5	127.0
30 - 34	154.9	154.8	153.2	151.4	146.6	142.2	139.4
35 - 39	137.0	158.6	159.8	161.3	162.6	162.3	162.1
40 - 44	113.7	138.7	145.0	150.0	154.1	158.0	161.0
45 - 49	65.4	114.1	117.5	122.3	127.9	132.7	138.9
50 - 54	63.4	64.7	73.9	83.2	92.0	104.1	112.8
55 - 59	50.6	61.5	63.8	64.5	64.9	62.2	62.7
60 - 64	42.5	47.7	47.7	48.9	51.9	54.4	58.1
65 - 69	30.5	38.2	39.1	40.1	41.0	42.7	43.4
70 - 74	21.0	25.2	26.9	28.8	30.4	31.9	32.8
75 & Over	25.0	28.7	29.4	30.1	31.3	32.7	35.2
Females							
Total	1,380.6	1,527.5	1,555.9	1,584.9	1,610.3	1,632.9	1,663.2
0 - 4	113.6	116.7	113.9	111.0	106.3	102.9	102.3
5 - 9	98.8	117.0	122.8	124.5	123.3	122.1	121.1
10 - 14	97.1	100.6	100.4	103.5	110.3	113.7	119.5
15 - 19	105.7	98.0	98.5	100.7	100.9	102.3	102.0
20 - 24	115.9	115.8	113.2	108.9	106.7	106.1	107.3
25 - 29	143.5	134.7	136.0	138.4	139.4	138.1	136.2
30 - 34	149.2	154.6	154.0	153.3	150.7	148.7	148.1
35 - 39	132.2	154.8	156.5	158.4	160.4	160.7	161.6
40 - 44	110.6	135.3	141.5	147.1	151.5	155.1	157.7
45 - 49	63.7	112.0	115.4	119.8	124.8	129.9	136.2
50 - 54	63.1	64.0	73.0	82.6	91.1	103.0	111.7
55 - 59	50.9	62.6	65.5	66.2	66.2	63.3	63.3
60 - 64	43.4	49.6	49.5	50.8	54.0	56.7	61.0
65 - 69	31.6	41.0	42.0	42.8	44.2	46.4	47.2
70 - 74	24.9	28.1	29.8	31.9	34.2	36.1	37.5
75 & Over	36.7	42.7	43.8	45.1	46.3	47.7	50.6

3.4

SINGAPORE RESIDENTS BY AGE GROUP, ETHNIC GROUP
AND SEX, END JUNE 2001

Ethnic Group / Sex	Thousand								
	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39
Total	3,319.1	212.3	249.5	247.0	211.2	215.0	263.2	287.5	323.7
Males	1,656.0	110.0	128.4	127.5	109.1	107.7	127.0	139.4	162.1
Females	1,663.2	102.3	121.1	119.5	102.0	107.3	136.2	148.1	161.6
Chinese	2,546.2	147.5	175.5	175.6	152.7	167.9	209.2	221.8	245.5
Males	1,264.4	76.5	90.5	91.0	79.1	84.1	101.3	106.9	122.8
Females	1,281.8	71.0	85.1	84.7	73.6	83.7	108.0	114.9	122.7
Malays	460.4	40.4	47.3	46.4	38.3	29.4	31.5	36.1	45.8
Males	231.4	20.9	24.3	23.8	19.7	15.0	15.7	17.7	22.8
Females	229.0	19.4	23.0	22.6	18.6	14.4	15.7	18.4	22.9
Indians	263.3	20.1	22.3	21.1	17.2	15.4	19.3	25.0	27.2
Males	137.0	10.4	11.4	10.7	8.8	7.5	8.8	13.0	14.2
Females	126.3	9.7	10.9	10.4	8.4	7.9	10.5	12.0	13.0
Others	49.2	4.3	4.3	3.8	2.9	2.3	3.1	4.6	5.3
Males	23.1	2.2	2.2	2.0	1.5	1.0	1.2	1.7	2.3
Females	26.0	2.1	2.1	1.9	1.5	1.3	1.9	2.9	3.0

Ethnic Group / Sex	Thousand								
	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 & Over
Total	318.7	275.1	224.5	126.0	119.1	90.6	70.2	43.2	42.5
Males	161.0	138.9	112.8	62.7	58.1	43.4	32.8	19.5	15.7
Females	157.7	136.2	111.7	63.3	61.0	47.2	37.5	23.8	26.8
Chinese	248.0	220.6	183.5	104.5	97.7	71.4	54.2	33.4	37.1
Males	125.1	111.6	92.5	52.0	47.6	33.8	23.6	13.4	12.6
Females	122.9	109.0	91.0	52.4	50.2	37.5	30.6	20.0	24.5
Malays	41.3	31.6	22.6	11.6	11.7	10.8	8.0	4.9	3.0
Males	20.8	15.6	11.0	5.4	5.6	4.9	3.8	2.6	1.6
Females	20.5	16.0	11.6	6.1	6.1	5.9	4.1	2.3	1.4
Indians	24.6	19.3	15.2	8.3	8.1	7.2	6.9	4.1	1.9
Males	12.9	9.8	7.6	4.4	4.2	4.1	4.8	3.1	1.3
Females	11.7	9.4	7.6	3.9	3.9	3.1	2.1	1.1	0.6
Others	4.7	3.6	3.1	1.6	1.5	1.3	1.1	0.7	0.6
Males	2.2	1.8	1.7	0.9	0.8	0.6	0.6	0.4	0.2
Females	2.6	1.8	1.4	0.8	0.8	0.6	0.6	0.4	0.3

Note : Singapore residents refer to citizens and permanent residents with local residence.

3.5 AGE-SPECIFIC AND TOTAL FERTILITY RATES

Age Group (Years)	Per Thousand Resident Females						
	1991	1996	1997	1998	1999	2000	2001
15 - 19	8.4	6.8	6.8	7.5	8.4	8.8	8.3
20 - 24	53.5	44.8	42.0	39.6	37.2	42.2	35.8
25 - 29	129.2	122.7	116.7	105.1	105.0	110.0	97.1
30 - 34	106.8	108.4	107.2	96.0	97.5	107.7	95.2
35 - 39	41.7	42.6	41.7	39.7	38.5	43.3	39.8
40 - 44	6.4	7.0	7.0	6.6	6.4	7.6	7.0
Total Fertility Rate	1,730	1,661	1,607	1,473	1,465	1,598	1,416

Note : The rates were computed based on resident live-births per 1,000 resident females.

Resident live-births refer to those with at least one parent who is a Singapore citizen or permanent resident.

3.6 LIVE-BIRTHS BY (a) BIRTH ORDER AND (b) PLACE OF OCCURRENCE

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	49,114	48,577	47,333	43,664	43,336	46,997	41,775
Males	25,314	25,306	24,553	22,505	22,572	24,509	21,666
Females	23,798	23,269	22,778	21,158	20,763	22,488	20,109
Birth Order							
1st	19,623	19,804	19,416	18,860	18,778	19,930	17,739
2nd	17,578	17,519	17,127	15,030	15,170	16,948	14,583
3rd	8,938	8,297	7,934	6,966	6,671	7,164	6,702
4th	2,299	2,291	2,184	2,108	1,970	2,134	1,931
5th	470	470	482	500	523	557	535
6th & over	206	195	189	200	221	260	278
Place of Occurrence							
Public Sector Hospitals	23,265	20,979	21,150	20,191	20,091	21,336	19,372
Private Sector Hospitals	25,622	27,449	26,028	23,341	23,096	25,515	22,245
Nursing Homes	36	-	-	-	-	-	-
Other Locations	191	149	155	132	149	146	158

Source : Registry of Births and Deaths

Note : Figures for males and females may not add up to the total due to unknown sex.

Data include birth order not stated.

Data for 2001 are based on date of registration.

3.7 MALE AND FEMALE AGE-SPECIFIC DEATH RATES

Per Thousand Residents

Age Group (Years)	1991	1996	1997	1998	1999	2000	2001
Males							
Total	5.1	5.2	5.0	5.0	4.9	4.9	4.8
Under 1 ¹	5.8	3.6	4.1	4.1	3.2	2.8	2.3
1 - 4	0.3	0.4	0.3	0.3	0.2	0.3	0.3
5 - 9	0.2	0.2	0.2	0.1	0.1	0.1	0.1
10 - 14	0.2	0.3	0.2	0.2	0.2	0.3	0.1
15 - 19	0.5	0.5	0.4	0.4	0.4	0.3	0.4
20 - 24	0.7	0.7	0.8	0.6	0.7	0.7	0.7
25 - 29	0.8	0.7	0.6	0.6	0.6	0.6	0.7
30 - 34	0.9	0.8	0.8	0.8	0.7	0.8	0.7
35 - 39	1.2	1.2	1.0	1.1	1.0	1.3	1.0
40 - 44	1.9	2.0	1.9	1.7	1.7	1.8	1.6
45 - 49	3.4	3.1	2.6	2.8	2.5	2.7	2.5
50 - 54	6.7	5.9	5.2	4.9	4.7	4.2	4.6
55 - 59	12.5	9.7	9.2	9.1	8.3	7.8	8.1
60 - 64	20.6	17.8	16.6	16.1	15.9	14.3	13.2
65 - 69	30.1	27.7	26.6	27.0	24.8	24.1	23.2
70 & Over	68.7	70.0	65.6	66.0	63.8	62.5	58.3
Females							
Total	4.1	4.2	4.1	4.1	4.1	4.1	3.9
Under 1 ¹	4.8	3.5	3.1	4.1	3.4	2.2	2.1
1 - 4	0.3	0.3	0.2	0.3	0.2	0.3	0.3
5 - 9	0.2	0.1	0.1	0.1	0.1	0.2	0.1
10 - 14	0.3	0.2	0.1	0.2	0.2	0.2	0.1
15 - 19	0.3	0.3	0.2	0.3	0.3	0.2	0.3
20 - 24	0.4	0.3	0.3	0.2	0.3	0.2	0.2
25 - 29	0.4	0.4	0.3	0.4	0.3	0.3	0.2
30 - 34	0.5	0.5	0.5	0.4	0.4	0.5	0.5
35 - 39	0.7	0.7	0.7	0.6	0.6	0.7	0.6
40 - 44	1.4	1.1	1.1	1.0	1.0	1.0	0.9
45 - 49	1.9	1.8	1.8	1.7	1.9	1.7	1.5
50 - 54	3.7	3.4	3.2	3.2	2.6	2.7	2.6
55 - 59	6.6	5.5	5.3	5.1	4.8	4.3	4.6
60 - 64	11.0	9.4	9.3	9.6	8.2	8.1	7.2
65 - 69	18.0	16.5	16.2	15.8	14.9	15.0	12.8
70 & Over	53.7	55.6	53.2	52.5	51.6	50.0	47.5

1 Infant mortality rate (deaths of resident infants under 1 year of age per thousand resident live-births).

3.8 DEATHS BY BROAD GROUP OF CAUSES

Causes of Death	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	13,876	15,590	15,305	15,657	15,516	15,693	15,365
Infective & Parasitic Diseases	321	358	318	361	311	276	285
of which : Tuberculosis	104	132	115	128	107	101	102
Neoplasms	3,405	4,034	4,178	4,091	4,168	4,278	4,371
of which: Cancer	3,361	3,985	4,128	4,050	4,134	4,238	4,329
Endocrine, Nutritional & Metabolic Diseases	359	403	366	401	444	458	625
of which : Diabetes	320	320	282	308	350	355	509
Diseases of the Blood & Blood-forming Organs	40	37	44	35	50	54	51
Diseases of the Nervous System & Sense Organs	117	89	95	110	105	107	119
Diseases of the Circulatory System	5,070	5,896	5,680	5,711	5,810	5,749	5,556
of which : Heart & Hypertensive Diseases	3,234	3,984	3,943	3,950	4,061	3,976	4,051
Cerebrovascular Disease	1,700	1,805	1,645	1,633	1,633	1,625	1,401
Diseases of the Respiratory System	2,289	2,534	2,385	2,579	2,357	2,505	2,207
of which : Pneumonia	1,285	1,693	1,553	1,780	1,641	1,794	1,510
Bronchitis	27	13	13	5	14	15	32
Diseases of the Digestive System	406	416	357	418	412	326	302
Diseases of the Genito-Urinary System	369	444	399	494	470	486	482
Congenital Anomalies	164	130	108	112	95	85	76
of which : Congenital Anomalies of Heart	82	74	68	57	48	48	33
Certain Causes of Perinatal Mortality	89	64	61	62	52	48	23
Accidents, Poisonings & Violence	1,074	1,040	1,187	1,110	1,066	1,133	831
of which :							
Motor Vehicle Accidents	258	237	283	231	215	221	184
Other Accidents	229	226	289	241	240	245	181
Suicides	319	271	346	371	309	348	309
Other Diseases & Causes ¹	173	145	127	173	176	188	437
of which : Senility	16	6	3	6	17	5	3

Source : Registry of Births and Deaths

Note : Deaths are classified according to the Ninth (1975) Revision of the International Classification of Diseases.

¹ Figure for 2001 includes causes of death that are pending the Coroner's decision.

3.9 AGE AT FIRST MARRIAGE AND DIVORCE

Years

	1991	1996	1997	1998	1999	2000	2001
Mean Age at First Marriage ¹							
Grooms	28.8	29.5	29.4	29.6	29.7	29.8	29.9
Brides	25.9	26.5	26.5	26.5	26.7	26.8	26.8
Mean Age of Divorcees ²							
Males	37.1	39.3	39.3	39.5	39.7	39.8	39.8
Females	33.6	35.9	35.9	36.1	36.2	36.3	36.3

1 Marriages between spinsters and bachelors.

2 Include annulments of marriages.

3.10 AGE-SPECIFIC MARRIAGE RATES

Age Group (Years)	1991	1996	1997	1998	1999	2000	2001
Males (per thousand unmarried male residents)							
15 - 19	1.4	1.5	1.2	1.2	1.4	1.7	1.7
20 - 24	35.4	27.9	33.1	26.8	28.7	24.8	21.9
25 - 29	108.8	108.8	117.3	98.9	116.2	109.3	97.4
30 - 34	106.4	109.9	107.4	97.7	106.8	102.2	100.9
35 - 39	77.0	70.1	75.0	64.9	68.5	66.8	70.4
40 - 44	50.7	51.0	46.7	48.4	49.1	45.1	43.6
General Marriage Rate	55.6	53.2	56.8	49.4	54.7	49.5	46.9
Females (per thousand unmarried female residents)							
15 - 19	10.8	7.0	6.6	7.6	7.2	7.5	6.9
20 - 24	84.3	64.2	74.5	57.9	65.4	57.8	50.9
25 - 29	136.1	131.3	142.5	117.2	143.5	137.1	117.7
30 - 34	75.2	71.3	79.1	67.4	80.7	72.0	66.5
35 - 39	37.1	34.9	39.1	33.7	37.3	33.6	32.2
40 - 44	15.5	18.5	19.3	16.4	17.8	17.6	14.5
General Marriage Rate	62.7	54.2	60.6	49.7	57.2	51.5	46.3

3.11 GROOMS BY AGE GROUP

Age Group (Years)	Number						
	1991	1996	1997	1998	1999	2000	2001
Women's Charter							
Total	19,985	19,935	21,300	18,971	21,561	18,550	18,279
Under 20	89	71	55	64	84	85	97
20 - 24	3,051	2,443	2,868	2,237	2,424	1,889	1,767
25 - 29	9,005	8,417	9,366	8,281	9,604	8,025	7,784
30 - 34	5,079	5,155	5,045	4,452	4,970	4,439	4,452
35 - 39	1,736	2,222	2,303	2,134	2,360	2,121	2,087
40 - 44	586	936	952	1,002	1,133	1,089	1,107
45 - 49	203	393	415	420	528	501	523
50 & Over	236	298	296	381	458	401	462
Muslim Law Act							
Total	4,806	4,171	4,367	4,135	4,087	4,011	4,001
Under 20	69	83	72	72	76	103	98
20 - 24	1,103	842	858	741	739	688	697
25 - 29	2,183	1,606	1,612	1,532	1,542	1,479	1,451
30 - 34	829	799	884	869	755	705	733
35 - 39	285	387	451	424	427	442	448
40 - 44	150	198	216	235	250	278	245
45 - 49	52	113	113	108	140	140	146
50 & Over	135	143	161	154	158	176	183

Source : Registry of Marriages
Registry of Muslim Marriages

Note : Data on marriages registered under the Women's Charter exclude marriages previously solemnized outside Singapore or under religious and customary rites.

3.12

BRIDES BY AGE GROUP

Age Group (Years)	Number						
	1991	1996	1997	1998	1999	2000	2001
Women's Charter							
Total	19,985	19,935	21,300	18,971	21,561	18,550	18,279
Under 20	716	475	425	514	496	452	428
20 - 24	7,440	6,564	7,174	5,847	6,387	5,159	5,034
25 - 29	8,046	8,367	9,093	8,335	9,748	8,509	8,297
30 - 34	2,564	2,874	2,857	2,615	2,968	2,662	2,804
35 - 39	818	1,058	1,076	1,000	1,145	1,028	1,032
40 - 44	261	391	435	402	484	463	409
45 - 49	77	132	154	164	210	174	160
50 & Over	63	74	86	94	123	103	115
Muslim Law Act							
Total	4,806	4,171	4,367	4,135	4,087	4,011	4,001
Under 20	563	386	359	421	383	431	393
20 - 24	2,066	1,678	1,676	1,519	1,441	1,327	1,416
25 - 29	1,316	1,090	1,188	1,118	1,162	1,139	1,123
30 - 34	481	489	539	490	460	463	419
35 - 39	191	248	282	295	320	302	310
40 - 44	109	146	154	153	173	182	178
45 - 49	40	86	102	92	93	96	100
50 & Over	40	48	67	47	55	71	62

Source : Registry of Marriages

Registry of Muslim Marriages

Note : Data on marriages registered under the Women's Charter exclude marriages previously solemnized outside Singapore or under religious and customary rites.

3.13 MARRIAGES REGISTERED BY ETHNIC GROUP OF COUPLE

Ethnic Group	Number						
	1991	1996	1997	1998	1999	2000	2001
Women's Charter							
Total	19,985	19,935	21,300	18,971	21,561	18,550	18,279
Chinese	17,740	17,242	18,760	16,078	18,689	15,737	15,150
Indians	1,128	1,087	946	999	877	844	827
Others	116	198	200	243	217	208	344
Inter-ethnic	1,001	1,408	1,394	1,651	1,778	1,761	1,958
Muslim Law Act							
Total	4,806	4,171	4,367	4,135	4,087	4,011	4,001
Malays	3,724	3,033	3,197	3,021	2,919	2,806	2,913
Indians	235	248	264	250	218	221	210
Others	25	26	10	19	22	21	22
Inter-ethnic	822	864	896	845	928	963	856

Source : Registry of Marriages

Registry of Muslim Marriages

Note : Data on marriages registered under the Women's Charter exclude marriages previously solemnized outside Singapore or under religious and customary rites.

3.14 AGE-SPECIFIC DIVORCE RATES

Age Group (Years)	1991	1996	1997	1998	1999	2000	2001
Males (per thousand married resident males)							
20 - 24	23.7	16.1	21.2	28.0	32.7	27.1	30.4
25 - 29	16.1	12.5	14.2	18.9	15.6	15.0	15.1
30 - 34	11.5	9.8	11.0	11.7	11.2	11.1	11.3
35 - 39	9.0	8.7	8.7	9.9	9.2	9.3	7.9
40 - 44	6.8	7.1	6.7	7.6	7.4	7.0	6.9
45 - 49	4.6	5.7	5.6	6.1	6.0	5.9	5.6
50 & Over	1.9	2.3	2.5	3.1	2.7	2.7	2.4
General Divorce Rate	7.0	6.4	6.6	7.5	6.9	6.7	6.3
Females (per thousand married resident females)							
20 - 24	19.0	17.0	20.2	29.0	23.6	22.3	25.0
25 - 29	14.5	11.8	14.0	14.8	14.0	13.6	14.5
30 - 34	10.2	9.3	9.3	11.0	10.2	10.1	9.3
35 - 39	7.4	7.5	7.4	8.3	8.0	7.8	7.3
40 - 44	5.2	6.3	5.6	6.7	6.4	6.0	5.6
45 - 49	3.9	4.7	4.5	5.7	4.8	4.6	4.5
50 & Over	1.1	1.4	1.9	2.1	2.0	2.0	1.9
General Divorce Rate	7.1	6.6	6.6	7.6	7.0	6.7	6.4

Note : Figures include annulments of marriages.

3.15 MALE DIVORCEES BY AGE GROUP

								Number
Age Group (Years)	1991	1996	1997	1998	1999	2000	2001	
Women's Charter								
Total ¹	3,398	3,546	3,676	4,186	3,770	3,553	3,743	
Under 20	-	-	-	-	-	-	-	
20 - 24	69	28	32	43	33	37	32	
25 - 29	557	363	385	487	420	381	404	
30 - 34	886	724	776	833	737	684	765	
35 - 39	779	812	771	866	769	725	727	
40 - 44	545	649	617	696	661	561	633	
45 - 49	222	468	449	515	468	456	478	
50 & Over	260	372	474	573	477	488	527	
Muslim Law Act								
Total	1,021	1,088	1,212	1,465	1,563	1,607	1,347	
Under 20	5	2	5	-	4	5	3	
20 - 24	52	47	63	57	62	72	69	
25 - 29	201	152	169	203	204	229	192	
30 - 34	268	270	303	326	322	286	253	
35 - 39	214	239	285	342	343	354	263	
40 - 44	130	165	170	240	251	284	251	
45 - 49	46	94	105	121	167	167	158	
50 & Over	105	119	112	176	210	210	158	

Source : Subordinate Courts
Syariah Court

Note : Figures for divorces under Women's Charter include annulments of marriages.

1 Includes age not stated.

3.16 FEMALE DIVORCEES BY AGE GROUP

							Number	
Age Group (Years)	1991	1996	1997	1998	1999	2000	2001	
Women's Charter								
Total ¹	3,398	3,546	3,676	4,186	3,770	3,553	3,743	
Under 20	3	1	1	2	1	1	-	
20 - 24	249	163	181	223	170	150	166	
25 - 29	904	691	749	805	764	725	789	
30 - 34	913	813	803	936	829	768	791	
35 - 39	620	713	694	756	698	602	674	
40 - 44	361	529	493	580	516	490	486	
45 - 49	156	333	320	400	330	326	358	
50 & Over	111	171	265	312	255	274	300	
Muslim Law Act								
Total	1,021	1,088	1,212	1,465	1,563	1,607	1,347	
Under 20	26	16	19	8	19	24	25	
20 - 24	136	133	139	169	158	189	169	
25 - 29	276	199	286	292	288	297	270	
30 - 34	221	250	270	332	331	315	231	
35 - 39	168	200	212	278	294	323	257	
40 - 44	101	155	137	189	237	204	195	
45 - 49	47	81	81	118	117	120	102	
50 & Over	46	54	68	79	119	135	98	

Source : Subordinate Courts

Syariah Court

Note : Figures for divorces under Women's Charter include annulments of marriages.

1 Includes age not stated.

20 - 24	199	170	202	255	236	223	230
25 - 29	143	148	149	148	140	136	143
30 - 34	102	93	93	110	102	103	93
35 - 39	74	73	74	85	80	78	73
40 - 44	32	63	58	67	64	60	56
45 - 49	39	47	45	57	53	49	45
50 & Over	14	18	19	21	20	20	19
General Divorce Rate	7.1	6.6	6.6	7.5	7.0	6.7	6.4

Note : Figures include annulments of marriages.

3.17 DIVORCES BY ETHNIC GROUP OF COUPLE

Ethnic Group	Number						
	1991	1996	1997	1998	1999	2000	2001
Women's Charter							
Total	3,398	3,546	3,676	4,186	3,770	3,553	3,743
Chinese	3,033	2,980	3,176	3,568	3,103	2,899	3,100
Indians	200	315	256	339	259	211	222
Others	14	66	19	28	198	226	189
Inter-ethnic	151	185	225	251	210	217	232
Muslim Law Act							
Total	1,021	1,088	1,212	1,465	1,563	1,607	1,347
Malays	801	933	1,015	1,141	1,183	1,131	1,015
Indians	40	24	43	58	52	76	55
Others	6	4	8	20	14	40	12
Inter-ethnic	174	127	146	246	314	360	265

Source : Subordinate Courts

Syariah Court

Note : Figures for divorces under the Women's Charter include annulments of marriage.

LABOUR AND PRODUCTIVITY

Labour force data are based on the mid-year Labour Force Survey except for 1991, 1995 and 2000 which were based on Population Censuses and the mid-decade data refer to persons aged fifteen years and over. The reference period refers to the full calendar week preceding the date of interview.

Monthly Earnings and Hours Worked
Values of real wages and productivity are calculated using the average monthly earnings and hours worked data compiled by the Department of Statistics. The surveys conducted by the Ministry of Manpower. The surveys cover private sector establishments at least

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4 LABOUR AND PRODUCTIVITY

Labour Force

Labour force data are based on the mid-year Labour Force Surveys except for 1990, 1995 and 2000 which were based on Population Censuses and the mid-decade (1995) General Household Survey (GHS). The data refer to persons aged fifteen years and over. The reference period refers to the full calendar week preceding the date of interview.

Definitions

Employed Persons : Refer to those who, during the reference week (i) worked for one hour or more either for pay, profit or for family gains or (ii) had a job or business but were temporarily absent because of illness, injury, mechanical breakdown, labour-management dispute or other reasons.

Unemployed Persons : Refer to those who did not work during the reference period but were available for work and were looking for a job with pay. Persons in the process of starting their own business or taking up a new job after the reference period were also considered as unemployed.

Economically Active Persons : Refer to those who were either employed or unemployed during the reference week.

Economically Inactive Persons : Refer to those who were not working, did not have a job to return to and were not looking for a job during the reference period.

Age-Sex Specific Labour Force Participation Rate : Refers to the economically active population as a percentage of the total population in the specific age-sex groups.

Unemployment Rate : Refers to unemployed persons as a percentage of the total economically active population.

Labour Productivity : Refers to the output per worker in terms of value added at 1990 prices.

Monthly Earnings and Hours Worked

Statistics on average monthly earnings of workers are compiled based on the payroll of CPF contributors. Statistics on weekly hours worked are compiled from surveys conducted by the Ministry of Manpower. The surveys cover private sector establishments with at least 25 employees.

Definitions

Monthly Earnings : Refers to all remuneration received before deduction of the employee's CPF contributions and personal income tax. It includes annual wage supplement and variable payments/bonuses.

Weekly Hours : Refer to the total number of paid hours worked during a week. It is the sum of standard hours and paid overtime hours worked.

Manpower Deployment

The Manpower Deployment Department of the Ministry of Manpower provides free service to Singapore citizens and permanent residents seeking employment to look for suitable jobs and assists employers to recruit workers. Registration for employment assistance by job seekers and notification of job vacancies by employers are voluntary.

Definitions

An unemployed registrant refers to an unemployed job-seeker who is registered for employment assistance at the Manpower

Deployment Department. The registration is valid for 2 months, after which the job-seeker has to re-register if he wants further assistance.

A new unemployed registrant refers to an unemployed job-seeker who is either seeking employment assistance the first time or is re-registering for employment assistance after the expiry of his 2-month registration period.

Statistics on the number of registrants and the number of vacancies notified and filled are compiled from administrative records.

Multifactor Productivity

Multifactor productivity, or MFP, measures relate output to a combined set of two or more factor inputs, usually labour and capital. A change in multifactor productivity measures the change in output that cannot be accounted for by the change in combined factor inputs. MFP measures therefore reflect the combined effects of factors such as technical progress, improvements in management practices, innovations, better organisation of the shop-floor, and the diffusion of technology across firms.

Central Provident Fund

The Central Provident Fund (CPF) was set up in 1955 to provide financial security for workers in their old age. Over the years, it has evolved into a comprehensive social security savings scheme. The overall scope and benefits of the CPF encompass: Retirement, Healthcare, Home Ownership, Family Protection and Asset Enhancement.

Both the worker and his employer contribute to the worker's savings with the CPF. Different contribution rates apply to

workers in different age groups. The current CPF contribution rates are as follows :

Age	Employer %	Employee %	Total %
55 years and below	16	20	36
Above 55 to 60 years	6	12.5	18.5
Above 60 to 65 years	3.5	7.5	11
Above 65 years	3.5	5	8.5

Each member has three accounts - the Ordinary, Medisave and Special Account. At age 55, the member also has a Retirement Account under the Minimum Sum Scheme. CPF savings can be used under the various CPF schemes. *Ordinary Account* savings can be used for housing, approved investments, CPF insurance and education. *Medisave Account* savings can be used for hospitalisation and approved medical expenses, and to pay for premiums of approved medical insurance for members and their dependants. *Special Account* is for old age, contingency purposes and investment in retirement-related financial products.

Savings in the CPF earn interest. The rate is based on the 12-month fixed deposit and month-end savings rates of the major local banks and it is revised quarterly. The CPF Act guarantees members a minimum interest rate of 2.5% p.a. on their CPF savings. Savings in the Special, Medisave and Retirement Accounts earn additional interest of 1.5 percentage points above the prevailing CPF interest rate.

Members can withdraw their CPF savings when they reach 55 years of age after setting aside a Minimum Sum in their Retirement Account. This is to ensure that they have a minimum regular income to meet their

basic needs during retirement. The Minimum Sum is currently \$70,000.

Standards, Productivity and Innovation Board

The Standards, Productivity and Innovation Board, or SPRING Singapore in short, focuses on three areas: productivity and innovation, standards and conformance, and small and medium-sized enterprises (SMEs) and the domestic sector.

Productivity and Innovation

SPRING Singapore spearheads the national Productivity and Innovation Movement. The movement aims to cultivate strong commitment to productivity and innovation in all sectors of the economy and to develop a creative workforce and innovative enterprises.

SPRING Singapore assists organisations to systematically achieve world-class standards of business excellence. SPRING Singapore is also involving in raising service quality levels in Singapore to world-class standards.

SPRING Singapore administers the Skills Development Fund, which provides incentives to help companies defray the cost of training their employees. The incentives are financed through collections from the Skills Development Levy imposed on employers.

Standards and Conformance

SPRING Singapore administers the Singapore standardisation programme, which involves the development and application of standards in industry. It also audits and accredits quality systems and the competence of quality system certifiers, inspection bodies, and testing and calibration laboratories.

SPRING Singapore enforces the Weights & Measures Act and Regulations to protect consumers by ensuring that market transactions based on weights and measures are accurate, fair, and comply with the relevant standards.

In addition, SPRING Singapore administers the Singapore Consumer Protection (Safety Requirements) Registration Scheme to ensure that the controlled goods used by consumers in Singapore are safe.

SPRING Singapore also ensures that the measurement infrastructure adequately supports the growing needs of industry.

SMEs & Domestic Sector

SPRING Singapore serves as the first point of contact for SMEs that need information and assistance for upgrading. It administers two key financial incentive schemes for SMEs. The first is the Local Enterprise Finance Scheme, which is a fixed interest rate loan for SMEs to expand and develop new capabilities. The second is the Local Enterprise Technical Assistance Scheme, which is a consultancy grant scheme to help SMEs acquire new competencies in operational management.

Trade Unions

Data on trade unions and membership are compiled from returns submitted to the Registrar of Trade Unions and cover both employees' and employers' unions.

Trade Disputes

Data on trade disputes relate only to cases referred to the Labour Relations Division of the Ministry of Manpower.

4 LABOUR AND PRODUCTIVITY (cont'd)

A trade dispute refers to any dispute between/among workers and employers regarding employment, non-employment, the terms of employment or the conditions of work.

Industrial Stoppages

Data on industrial stoppages refer to cases reported to and handled by the Labour Relations Division of the Ministry of Manpower and include both strikes and lockouts.

Other References

Similar data are in the "Singapore Yearbook of Manpower Statistics" published by the Manpower Research and Statistics Department of the Ministry of Manpower.

Detailed statistics on the labour force are published in the "Report on the Labour Force Survey of Singapore."

4.4 AGE-SPECIFIC FEMALE LABOUR FORCE PARTICIPATION RATES

Age Group (Years)	1982	1991	1996	1997	1998	1999	2000	2001
Total	57.1	57.7	57.1	56.8	56.8	56.7	56.8	56.4
15 - 19	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
20 - 24	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
25 - 29	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
30 - 34	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
35 - 39	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
40 - 44	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
45 - 49	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
50 - 54	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
55 - 59	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
60 - 64	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
65 - 69	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
70 - 74	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
75 & Over	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9

Source: Ministry of Manpower (Other than 2001)

Notes: Rates in persons aged 15 years and over as at June of the respective years. Data for 2001 are from the Census of Population.

4.1 LABOUR FORCE

	1991	1996	1997	1998	1999	2000	2001
Labour Force ('000)	1,554.3	1,801.9	1,876.0	1,931.8	1,976.0	2,192.3	2,119.7
Males	936.4	1,054.6	1,107.8	1,125.1	1,138.6	1,324.3	1,190.4
Females	617.9	747.4	768.2	806.7	837.4	868.0	929.2
Employed ('000)	1,524.3	1,748.1	1,830.5	1,869.7	1,885.9	2,094.8	2,046.7
Males	917.8	1,023.6	1,081.0	1,089.6	1,087.2	1,270.8	1,148.7
Females	606.5	724.5	749.4	780.1	798.6	824.0	898.0
Unemployed ('000)	30.0	53.8	45.5	62.1	90.1	97.5	73.0
Males	18.7	31.0	26.8	35.5	51.4	53.5	41.7
Females	11.3	22.8	18.7	26.6	38.7	44.0	31.2
Labour Force Participation Rate (%)	64.8	64.6	64.2	63.9	64.7	68.6	65.4
Males	79.8	78.7	78.3	77.5	77.8	81.1	77.8
Females	50.5	51.5	51.1	51.3	52.7	55.5	54.3
Unemployment Rate ¹ (%)	1.6	2.2	1.8	2.4	3.5	3.3	2.6

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

1 Seasonally adjusted.

4.2 AGE-SPECIFIC LABOUR FORCE PARTICIPATION RATES

Age Group (Years)	Per Cent						
	1991	1996	1997	1998	1999	2000	2001
Total	64.8	64.6	64.2	63.9	64.7	68.6	65.4
15 - 19	30.4	20.1	16.8	14.7	17.2	19.1	17.6
20 - 24	82.9	76.1	73.5	71.5	74.0	77.4	73.7
25 - 29	86.0	88.1	88.2	87.9	87.1	91.1	88.8
30 - 34	79.8	82.1	82.5	82.9	83.6	87.1	84.3
35 - 39	77.5	79.0	78.3	80.0	79.4	82.0	80.3
40 - 44	75.9	77.4	77.8	78.6	78.5	79.8	80.0
45 - 49	70.3	75.3	76.0	76.3	78.0	77.3	78.4
50 - 54	63.2	67.5	68.8	68.6	69.1	69.1	70.9
55 - 59	46.3	52.6	50.9	53.0	53.5	51.7	55.4
60 - 64	29.7	31.3	32.4	30.7	34.6	31.7	34.8
65 - 69	17.3	20.5	20.6	18.2	20.2	17.9	20.1
70 - 74	10.2	11.5	9.8	10.3	11.0	9.1	10.6
75 & Over	4.9	4.5	4.0	2.9	4.7	3.2	3.9

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

4.3 AGE-SPECIFIC MALE LABOUR FORCE PARTICIPATION RATES

Age Group (Years)	Per Cent						
	1991	1996	1997	1998	1999	2000	2001
Total	79.8	78.7	78.3	77.5	77.8	81.1	77.8
15 - 19	31.1	21.7	17.1	15.8	17.2	18.0	17.2
20 - 24	83.1	74.3	72.1	69.8	70.8	75.9	70.5
25 - 29	97.0	96.4	94.9	94.5	93.4	96.5	94.5
30 - 34	98.7	98.2	98.5	98.2	97.9	98.3	97.9
35 - 39	99.1	98.2	98.2	98.7	98.2	98.2	98.5
40 - 44	98.4	98.2	97.9	98.2	97.5	97.5	98.1
45 - 49	96.5	96.8	96.9	97.2	96.7	96.3	96.5
50 - 54	92.5	91.4	92.7	91.7	92.2	91.2	90.9
55 - 59	71.0	77.8	76.2	76.6	76.1	74.4	74.9
60 - 64	46.9	48.6	49.9	48.9	51.7	49.6	53.2
65 - 69	29.3	33.5	34.3	29.6	33.1	29.5	32.6
70 - 74	17.4	18.9	15.8	18.5	18.7	15.9	18.5
75 & Over	9.6	8.9	7.8	5.3	9.5	6.3	7.5

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

4.4 AGE-SPECIFIC FEMALE LABOUR FORCE PARTICIPATION RATES

							Per Cent
Age Group (Years)	1991	1996	1997	1998	1999	2000	2001
Total	50.5	51.5	51.1	51.3	52.7	55.5	54.3
15 - 19	29.8	18.5	16.4	13.6	17.2	20.1	17.9
20 - 24	82.6	77.6	74.9	73.1	76.6	78.7	76.3
25 - 29	75.6	81.4	82.4	82.4	81.9	84.9	84.5
30 - 34	61.9	68.0	67.9	69.7	70.5	73.6	73.0
35 - 39	56.0	60.5	59.1	62.0	60.8	63.0	63.4
40 - 44	54.2	56.9	57.9	59.6	60.2	60.7	62.5
45 - 49	46.2	53.9	54.9	55.6	59.6	57.4	60.3
50 - 54	34.1	43.7	44.7	46.0	46.4	46.7	50.7
55 - 59	21.2	28.5	27.1	30.0	32.0	29.6	37.2
60 - 64	12.3	14.9	15.5	13.9	19.1	15.3	18.3
65 - 69	6.3	8.9	8.7	8.0	8.9	7.5	9.3
70 - 74	4.2	5.3	5.0	3.6	4.2	3.6	4.5
75 & Over	1.9	1.6	1.6	1.4	1.4	1.2	1.6

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

4.5 EMPLOYED PERSONS AGED 15 YEARS AND OVER BY OCCUPATIONAL STATUS

Occupational Status	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	1,524.3	1,748.1	1,830.5	1,869.7	1,885.9	2,094.8	2,046.7
Employers	79.9	98.4	99.5	91.5	107.4	89.3	94.9
Own Account Workers	107.2	137.3	124.3	143.9	147.5	121.8	169.9
Employees	1,320.8	1,491.6	1,588.1	1,614.7	1,610.8	1,876.1	1,762.8
Contributing Family Workers	16.4	20.9	18.6	19.6	20.2	7.6	19.2

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

4.6 EMPLOYED PERSONS AGED 15 YEARS AND OVER BY OCCUPATION

Occupation	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	1,524.3	1,748.1	1,830.5	1,869.7	1,885.9	2,094.8	2,046.7
Legislators, Senior Officials and Managers	137.4	215.3	230.2	239.1	233.1	249.3	275.5
Professionals	89.0	140.8	177.6	189.2	202.4	186.6	241.7
Technicians and Associate Professionals	173.9	295.3	306.2	315.3	324.4	313.1	339.9
Clerical Workers	223.1	261.5	272.1	274.9	260.4	231.5	274.9
Service Workers, Shop and Market Sales Workers	218.1	232.1	234.7	240.1	251.6	211.9	230.6
Agricultural and Fishery Workers	2.8	1.7	2.6	1.5	2.1	1.5	2.0
Production Craftsmen, Plant and Machine Operators, Cleaners and Labourers	616.4	541.4	546.3	547.5	548.5	847.7	607.3
Others	63.6	60.1	60.7	62.1	63.4	53.3	74.8

Source : Ministry of Manpower (Other than 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

Data are classified according to the Singapore Standard Occupational Classification 2000.

4.7 EMPLOYED PERSONS AGED 15 YEARS AND OVER BY INDUSTRY

		Thousand					
Industry		1990	1995	1998	1999	2000	2001
Total		1,537.0	1,702.1	1,869.7	1,885.9	2,094.8	2,046.7
Manufacturing		445.0	403.6	404.4	395.6	434.9	384.0
Construction		123.3	114.2	131.3	130.7	274.0	124.9
Wholesale & Retail Trade		240.2	242.9	281.2	278.9	286.8	303.6
Hotels & Restaurants		96.7	103.5	118.9	121.2	114.5	128.3
Transport, Storage & Communications		146.6	183.3	206.4	203.7	196.5	228.2
Financial Intermediation		61.1	86.8	108.5	104.6	96.3	108.7
Real Estate, Renting & Business Activities		111.9	175.7	184.3	196.8	226.2	243.1
Community, Social & Personal Services		299.7	374.0	418.0	436.3	452.7	506.2
Others ¹		12.6	18.2	16.8	18.0	12.9	19.7

Source : Ministry of Manpower (Other than 1990, 1995 and 2000)

Notes : Refers to persons aged 15 years and over as at June of the respective years. Data for 2000 are from the Census of Population.

Data for 1990, 1995, 2000 and 2001 are classified according to the Singapore Standard Industrial Classification 2000.

Data for 1998 and 1999 are classified according to the Singapore Standard Industrial Classification 1996.

1 Includes Agriculture, Fishing, Mining & Quarrying, Utilities and Activities Not Adequately Defined.

4.8 EMPLOYED PERSONS AGED 15 YEARS AND OVER BY INDUSTRY AND OCCUPATION, 2001

Thousand					
Occupation	Total	Manufacturing	Construction	Wholesale & Retail Trade	Hotels & Restaurants
Total	2,046.7	384.0	124.9	303.6	128.3
Legislators, Senior Officials & Managers	275.5	54.4	26.1	80.8	11.0
Professionals	241.7	50.0	12.7	10.1	0.9
Technicians & Associate Professionals	339.9	66.1	11.7	32.9	3.8
Clerical Workers	274.9	41.8	11.3	52.6	9.2
Service Workers, Shop & Market Sales Workers	230.6	4.2	0.4	93.5	56.2
Production Craftsmen, Plant & Machine Operators, Cleaners & Labourers	607.3	167.3	62.6	33.4	47.2
Others ²	76.7	0.1	0.1	0.2	-

Occupation	Transport, Storage & Communications	Financial Intermediation	Real Estate, Renting & Business Activities	Community, Social & Personal Services	Others ¹
Total	228.2	108.7	243.1	506.2	19.7
Legislators, Senior Officials & Managers	23.6	18.8	39.4	19.4	2.0
Professionals	12.1	18.5	61.8	73.6	2.0
Technicians & Associate Professionals	34.3	40.1	54.7	91.5	4.6
Clerical Workers	43.9	28.3	36.3	48.2	3.4
Service Workers, Shop & Market Sales Workers	17.9	0.7	17.0	40.2	0.5
Production Craftsmen, Plant & Machine Operators, Cleaners & Labourers	96.2	2.3	34.0	159.0	5.2
Others ²	-	-	-	74.3	2.0

Source : Ministry of Manpower

Note : The industries and occupations are classified according to the Singapore Standard Industrial Classification 2000 and Singapore Standard Occupational Classification 2000 respectively.

1 Includes Agriculture, Fishing, Mining & Quarrying, Utilities and Activities Not Adequately Defined.

2 Includes Agricultural & Fishery Workers and Workers Not Classifiable by Occupation.

4.9 GOVERNMENT EMPLOYEES BY DIVISIONAL STATUS

Divisional Status							Number
	1991	1996	1997	1998	1999	2000	2001
Total	62,062	62,185	62,853	65,742	67,020	63,316	61,032
Division I	12,534	19,509	21,208	23,395	25,017	24,400	24,765
Division II	20,646	18,906	19,604	19,622	19,630	18,939	18,227
Division III	20,369	17,128	15,571	16,242	16,229	14,993	13,772
Division IV	8,513	6,642	6,470	6,483	6,144	4,984	4,268

Source : Public Service Commission

Public Service Division, Prime Minister's Office (wef 1995)

Note : Figures exclude daily-rated employees.

4.10 CENTRAL PROVIDENT FUND MEMBERS BY AGE GROUP (End of Period)

Age Group (Years)							Thousand
	1991	1996	1997	1998	1999	2000	2001
Total	2,255.7	2,741.8	2,782.0	2,803.4	2,828.1	2,880.0	2,922.7
Up to 20	112.6	99.2	100.9	94.3	88.8	90.3	88.2
> 20 - 25	239.9	229.9	218.6	204.6	197.0	202.2	202.5
> 25 - 30	375.8	299.7	291.2	285.6	280.6	271.7	268.5
> 30 - 35	398.2	404.3	389.3	370.1	348.1	331.4	318.3
> 35 - 40	350.7	411.6	417.4	422.4	423.2	419.0	411.2
> 40 - 45	266.4	360.4	373.7	384.0	393.8	404.6	412.2
> 45 - 50	147.9	280.7	294.6	310.8	326.3	342.5	359.2
> 50 - 55	125.2	156.0	179.8	199.2	222.9	251.8	267.7
Over 55	208.4	470.1	486.8	503.0	517.8	536.0	565.4
Not specified	30.5	29.9	29.7	29.6	29.6	30.5	29.5

Source : Central Provident Fund Board

Note : Data include self-employed who had made CPF contributions.

4.11 CENTRAL PROVIDENT FUND CONTRIBUTORS BY AGE GROUP (End of Period)

Age Group (Years)	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	1,052.4	1,193.9	1,224.2	1,198.2	1,224.5	1,272.9	1,269.6
Up to 20	42.2	33.1	35.5	26.5	31.6	35.0	27.9
> 20 - 25	137.8	129.8	123.1	110.4	108.7	111.0	103.9
> 25 - 30	207.0	198.7	200.5	198.2	199.4	199.9	196.9
> 30 - 35	194.3	207.0	206.0	199.2	196.2	197.5	195.2
> 35 - 40	161.1	191.2	194.0	190.7	192.4	197.3	195.5
> 40 - 45	125.6	160.4	168.9	169.6	174.6	182.3	183.0
> 45 - 50	68.0	123.5	130.0	131.3	136.5	145.9	151.6
> 50 - 55	55.2	63.2	74.5	81.2	91.5	104.8	109.9
> 55 - 60	31.9	46.0	47.6	46.4	46.1	46.4	50.6
Over 60	28.6	40.7	43.9	44.6	47.4	52.7	55.1
Not specified	0.5	0.3	0.2	0.1	0.1	0.1	-

Source : Central Provident Fund Board

Note : Data from 1992 exclude self-employed who had made CPF contributions.

4.12 CENTRAL PROVIDENT FUND CONTRIBUTORS BY WAGE LEVEL (End of Period)

Monthly Wage Level (\$)	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	1,052.4	1,193.9	1,224.2	1,198.2	1,224.5	1,272.9	1,269.6
Up to 200	18.4	14.0	14.2	12.4	14.7	14.4	13.9
200 - 399	58.8	35.6	34.8	32.9	33.7	33.3	32.4
400 - 599	71.3	47.4	48.4	47.5	44.9	47.9	52.7
600 - 799	126.3	58.0	53.1	51.0	52.6	52.4	47.5
800 - 999	139.7	75.0	65.1	61.1	61.8	57.3	54.2
1,000 - 1,499	251.2	245.8	228.3	219.0	212.6	193.2	184.9
1,500 - 1,999	144.6	213.3	214.8	209.0	208.5	204.0	202.4
2,000 - 2,499	79.7	152.0	160.0	157.1	162.4	166.8	167.2
2,500 - 2,999	45.9	96.0	107.1	108.7	115.5	125.4	127.9
3,000 - 3,499	30.4	65.3	75.9	75.0	78.9	91.0	90.5
3,500 - 3,999	20.8	40.0	46.8	47.0	50.2	59.8	61.1
4,000 - 4,499	14.2	32.6	41.7	37.5	40.7	45.6	46.7
4,500 - 4,999	9.8	19.6	24.4	28.5	29.6	33.6	32.7
5,000 - 5,499	8.7	21.3	20.7	21.6	23.4	29.0	28.8
5,500 & Over	29.7	71.8	81.7	87.9	93.3	117.1	126.7
Not specified	2.8	6.2	7.2	2.1	1.7	2.1	-

Source : Central Provident Fund Board

Note : Data from 1992 exclude self-employed who had made CPF contributions.

4.13

CENTRAL PROVIDENT FUND CONTRIBUTORS BY INDUSTRY
(End of Period)

Industry	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	1,052.4	1,193.9	1,224.2	1,198.2	1,224.5	1,272.9	1,269.6
Agriculture & Fishing	1.9	2.6	2.9	3.0	3.0	3.4	3.1
Quarrying	0.4	0.4	0.4	0.4	0.4	0.3	0.4
Manufacturing	297.9	280.4	275.1	255.8	253.3	256.3	246.4
Utilities	6.8	6.7	6.6	6.9	6.8	7.0	5.0
Construction	42.0	76.0	81.3	78.7	79.0	79.1	74.4
Commerce	254.6	291.5	297.1	283.7	290.9	300.6	298.0
Transport & Communications	110.0	115.6	116.8	114.8	116.1	124.6	125.3
Financial & Business Services	145.9	211.3	225.5	230.1	241.7	261.4	267.7
Other Services	192.6	209.0	218.4	224.7	233.2	240.0	248.9
Activities Not Adequately Defined	0.2	0.4	0.1	0.1	0.1	0.2	0.4

Source : Central Provident Fund Board

Note : Data prior to 1998 are classified according to the Singapore Standard Industrial Classification (SSIC) 1990.

Data for 1998-2000 are classified according to SSIC 1996.

Data from 2001 onwards are classified according to SSIC 2000.

Data from 1992 onwards exclude self-employed who had made CPF contributions.

4.14

EMPLOYMENT SERVICE

	Number						
	1991	1996	1997	1998	1999	2000	2001
Number on 'Live' Register ¹	1,037	2,746	2,352	7,776	5,155	3,457	9,293
New Registrants ²	2,669	4,230	4,777	19,784	29,407	17,676	29,499
Males	1,773	2,068	2,336	10,335	16,010	9,939	15,010
Females	896	2,162	2,441	9,449	13,397	7,737	14,489
Vacancies Filled	933	675	628	1,038	1,662	892	748
Males	557	377	345	498	966	533	426
Females	376	298	283	540	696	359	322

Source : Ministry of Manpower

¹ Figures are for end of period.² Job registrants can renew their registration after the 2-month validity period.

4.15

CHANGES IN LABOUR PRODUCTIVITY BY INDUSTRY

Industry	Per Cent						
	1991	1996	1997	1998	1999	2000	2001
Total	1.9	1.4	2.3	-2.8	7.4	5.9	-5.4
Total (excluding Construction)	2.0	2.7	3.8	-2.2	7.7	5.9	-6.3
Goods Producing Industries	3.1	-0.6	0.8	-1.4	12.4	9.2	-9.1
Manufacturing	3.5	2.9	5.5	1.4	17.6	11.6	-13.5
Construction	4.8	-1.8	-3.2	-4.4	-2.2	-0.5	0.2
Services Producing Industries	3.1	2.8	3.7	-3.8	3.8	3.2	-3.6
Wholesale & Retail Trade	5.1	3.2	3.9	-3.3	8.8	10.9	-6.2
Hotels & Restaurants	-2.7	2.9	1.9	-9.0	3.9	6.5	-4.4
Transport & Communications	4.3	3.4	4.6	4.7	6.7	3.5	-1.3
Financial Services	2.8	1.2	9.3	-9.8	4.0	-3.5	-3.7
Business Services	1.4	0.4	-0.4	-5.3	-2.5	-2.7	-6.7

Source : Singapore Department of Statistics and Ministry of Manpower

Note : The industries are classified according to the Singapore Standard Industrial Classification 1996.

4.16

MULTIFACTOR PRODUCTIVITY : CONTRIBUTIONS TO GROWTH IN REAL GDP

	1991	1996	1997	1998	1999	2000	2001
Percentage Change in Real GDP	6.9	7.4	8.2	-0.1	6.7	9.8	-2.1
Percentage Contribution to Growth in Real GDP of :							
Capital Input	3.6	5.1	5.1	3.9	3.2	3.3	2.6
Labour Input	2.4	2.9	2.9	1.4	-0.2	1.9	1.7
Multifactor Productivity Growth	0.9	-0.6	0.3	-5.3	3.7	4.6	-6.4

Note : All growth rates are expressed in log terms.

4.17 AVERAGE MONTHLY EARNINGS BY INDUSTRY

Industry	Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	1,669	2,347	2,480	2,740	2,813	3,063	3,134
Manufacturing	1,552	2,320	2,487	2,716	2,803	3,036	3,117
Construction	1,426	1,971	1,991	2,143	2,226	2,333	2,330
Wholesale & Retail Trade	1,569	2,203	2,319	2,539	2,561	2,721	2,752
Hotels & Restaurants	968	1,271	1,303	1,320	1,291	1,332	1,339
Transport, Storage & Communications	1,677	2,425	2,581	2,802	2,836	3,105	3,283
Financial Services	2,386	3,270	3,522	4,399	4,528	4,931	5,131
Business & Real Estate Services	2,027	2,596	2,731	3,004	3,056	3,281	3,332
Community, Social & Personal Services	1,844	2,472	2,576	2,811	2,955	3,336	3,340

Source : Ministry of Manpower

Central Provident Fund Board

Note : Average monthly earnings are computed using data obtained from the CPF Board. They include bonuses, if any, but exclude employers' CPF contributions. Data exclude all identifiable self-employed.

Data prior to 2001 are classified according to the Singapore Standard Industrial Classification (SSIC) 1996.

From 2001 onwards, data are classified according to the SSIC 2000.

4.18 AVERAGE WEEKLY HOURS WORKED BY INDUSTRY

Industry	Hours					
	1996	1997	1998	1999	2000	2001
Total	47.3	47.4	46.7	46.8	47.1	46.1
Total (excl Construction)	46.5	46.4	45.6	45.9	46.2	45.3
Manufacturing	49.4	49.5	48.4	49.3	50.2	48.4
Construction	51.8	51.7	51.4	51.3	51.6	50.8
Wholesale & Retail Trade	43.6	43.7	43.4	43.8	43.7	43.4
Hotels & Restaurants	42.8	42.6	41.0	40.7	40.8	40.9
Transport & Communications	47.3	46.9	46.4	46.1	46.3	45.7
Financial Services	43.1	43.0	42.8	43.3	43.3	43.0
Business Services	44.6	44.6	44.7	44.9	44.7	44.4

Source : Ministry of Manpower

Note : The data refer to private sector establishments with at least 25 employees as at September.

Prior to 2000, data are classified according to the Singapore Standard Industrial Classification (SSIC) 1996.

For 2000 and 2001, data are based on SSIC 2000.

4.19

AVERAGE MONTHLY RECRUITMENT RATE BY INDUSTRY AND OCCUPATIONAL GROUP

	1991	1996	1997	1998	1999	2000	2001
Total	3.9	3.2	3.2	2.3	2.6	3.2	2.5
Industry							
Manufacturing	3.8	2.9	2.9	1.9	2.3	2.8	1.8
Construction	3.4	2.9	3.1	2.4	2.3	2.6	2.5
Wholesale & Retail Trade	5.0	4.4	4.3	2.8	3.5	4.3	3.3
Hotels & Restaurants	6.8	4.5	4.9	3.6	4.6	4.6	4.3
Transport, Storage & Communications	2.3	2.4	2.2	1.7	1.7	2.4	1.9
Financial Services	2.0	2.5	2.4	1.8	1.8	2.4	1.7
Real Estate & Business	4.2	3.9	4.2	3.1	3.8	4.5	3.5
Community, Social & Personal Services	4.1	3.1	3.2	2.4	2.7	3.0	2.8
Others ¹	3.8	2.0	2.7	1.9	1.7	1.3	1.4
Occupational Group							
Professional, Technical, Administrative, Managerial, Executive & Related Employees	2.2	2.5	2.5	1.8	2.1	2.8	2.0
Clerical, Sales, Service & Related Employees	4.9	4.0	4.0	2.9	3.4	4.1	3.4
Production, Transport & All Other Employees	3.9	3.1	3.1	2.3	2.5	2.9	2.3

Source : Ministry of Manpower

Note : Data refer to private sector establishments with at least 25 employees.

Data prior to 2000 are classified according to the Singapore Standard Industrial Classification (SSIC) 1996 and Singapore Standard Occupational Classification (SSOC) 1990.

From 2000 onwards, data are classified according to SSIC 2000 and SSOC 2000.

1 Includes Agriculture, Fishing, Quarrying and Utilities.

4.20

AVERAGE MONTHLY RESIGNATION RATE BY INDUSTRY AND OCCUPATIONAL GROUP

	Per Cent						
	1991	1996	1997	1998	1999	2000	2001
Total	3.6	2.8	2.7	2.1	2.2	2.5	2.2
Industry							
Manufacturing	3.6	2.8	2.5	1.9	1.9	2.1	1.8
Construction	2.9	2.1	2.3	2.1	2.2	2.2	2.4
Wholesale & Retail Trade	4.3	3.9	3.8	2.7	2.8	3.3	2.9
Hotels & Restaurants	6.3	4.5	4.8	3.8	4.2	4.3	4.3
Transport, Storage & Communications	1.8	1.8	1.7	1.4	1.4	1.7	1.5
Financial Services	1.7	2.1	1.9	1.3	1.4	1.8	1.4
Real Estate & Business	3.6	3.3	3.4	2.7	3.0	3.5	2.9
Community, Social & Personal Services	3.5	2.5	2.5	2.0	2.1	2.5	2.2
Others ¹	3.4	2.1	2.3	1.8	1.1	0.9	0.9
Occupational Group							
Professional, Technical, Administrative, Managerial, Executive & Related Employees	1.6	1.8	1.9	1.4	1.6	2.0	1.5
Clerical, Sales, Service & Related Employees	4.5	3.7	3.7	2.9	2.9	3.5	3.1
Production, Transport & All Other Employees	3.8	2.8	2.7	2.0	2.2	2.2	2.2

Source : Ministry of Manpower

Note : Data refer to private sector establishments with at least 25 employees.

Data prior to 2000 are classified according to the Singapore Standard Industrial Classification (SSIC) 1996 and Singapore Standard Occupational Classification (SSOC) 1990.

From 2000 onwards, data are classified according to SSIC 2000 and SSOC 2000.

¹ Includes Agriculture, Fishing, Quarrying and Utilities.

4.21

QUALITY CIRCLES

(End of Period)

Industry							Number	
	1991	1996	1997	1998	1999	2000	2001	
Registered Quality Circles	11,720	19,241	19,651	20,566	24,554	25,646	28,543	
Organisations (Companies, Government Bodies & Statutory Boards)	234	387	389	400	415	428	448	
Membership	81,169	140,760	144,030	171,818	195,986	205,026	229,565	

Source : Standards, Productivity and Innovation Board

4.22

SKILLS DEVELOPMENT FUND VALUE OF ASSISTANCE AND
TRAINING PLACES COMMITTED BY TYPE OF TRAINING

Type of Training	1990	1995	1996	1997	1998	1999	2000
Value of Assistance Committed (Thousand Dollars)							
Total	77,446	61,935	67,767	82,820	81,883	86,570	97,016
Productivity & Quality-related Skills	9,540	10,231	12,567	10,277	11,899	13,806	19,792
Computer-related Skills	12,029	10,354	12,089	10,884	15,093	11,449	19,878
Technical Production & Engineering Skills	14,888	6,528	9,617	12,394	8,191	15,903	15,761
Technical Service Skills	21,055	14,046	15,524	21,884	21,037	24,685	25,056
Management & Supervisory Skills	15,475	9,816	12,718	13,267	12,757	10,121	8,000
Trade & Craft Skills	3,491	10,299	4,393	13,049	11,832	9,643	7,395
Others	968	660	858	1,066	1,074	962	1,133
Training Places (Number)							
Total	405,621	461,651	483,286	502,686	530,755	575,240	599,102
Productivity & Quality-related Skills	58,455	99,379	112,904	96,381	117,847	157,082	154,591
Computer-related Skills	77,365	97,739	104,636	99,051	128,966	109,356	162,228
Technical Production & Engineering Skills	62,412	64,529	94,796	93,233	66,645	73,684	75,097
Technical Service Skills	112,372	114,613	92,889	128,346	128,993	146,511	136,529
Management & Supervisory Skills	75,083	72,412	68,570	69,631	70,777	70,226	57,651
Trade & Craft Skills	15,164	5,995	2,219	8,359	9,425	10,278	4,180
Others	4,770	6,984	7,272	7,685	8,102	8,103	8,826

Source : Standards, Productivity and Innovation Board

Note : The period refers to financial year beginning on 1 April and ending on 31 March the following year.

Figures exclude BEST, WISE and Vocational Training Scheme (VTS).

4.23

TRADE UNIONS AND MEMBERSHIP

(End of Period)

Industry							Number
	1991	1996	1997	1998	1999	2000	2001
Employee Class							
Unions	83	83	82	80	76	72	71
Members	217,086	255,020	260,130	272,769	289,707	314,478	338,311
Employer Class							
Unions	4	3	3	3	3	3	3
Members	1,064	1,377	1,522	1,780	1,807	1,827	1,971

Source : Ministry of Manpower

4.24

LABOUR RELATIONS

							Number
	1991	1996	1997	1998	1999	2000	2001
Trade Disputes	323	309	253	291	246	231	266
Claims Registered ¹	323	309	253	291	246	231	266
Wages	214	190	157	144	132	142	128
Others	109	119	96	147	114	89	138
Cases Referred to IAC ²	34	14	14	19	20	15	25
IAC Awards	31	11	12	10	12	9	18
Industrial Stoppages	-	-	-	-	-	-	-

Source : Ministry of Manpower

1 Refer to main cause of individual disputes referred to the Conciliation Section.

"Wages" include Wage Increase and Conditions of Service.

"Others" include Retrenchment Benefits, Bonus or Gratuity and other Industrial Matters (eg Sales Commission, Shift Allowances, etc).

2 IAC = Industrial Arbitration Court.

NATIONAL INCOME AND BALANCE OF PAYMENTS

National Income Estimates

The output, expenditure and income approaches are adopted for compiling national income aggregates of Singapore. The concepts, definitions and methodology given in the United Nations' publication, "A System of National Accounts, 1993" are closely followed.

The development of the Singapore economy depends heavily on foreign capital, foreign technology and foreign workers. Consequently, a large share of the compensation of employees and operating surplus, as recorded in national accounts, accrue to foreigners and foreign enterprises.

The per capita GNP as conventionally defined on a residential basis is therefore not a true reflection of the income of Singaporeans. Hence, a series on indigenous per capita GNP which excludes the foreigners' contribution is compiled.

This involves the calculation of income accruing to foreign workers and foreign enterprises which are residents of Singapore and the exclusion of this amount from the GNP.

Definitions

Gross National Product (GNP) : It refers to the aggregate value of output produced by productive factors owned by Singapore residents irrespective of whether they are located within Singapore's domestic territory or abroad.

Indigenous GNP : It refers to the aggregate value of output accrued to Singaporeans.

Gross Domestic Product (GDP): It refers to the aggregate value of output produced within the domestic territory of Singapore.

Expenditure on GDP: It refers to the sum of private consumption expenditure of households including non-profit institutions, government consumption expenditure, gross capital formation and net exports.

Income components of GDP: It refers to the sum of incomes receivable by each institutional sector from the domestic production of goods and services which includes compensation of employees, gross operating surplus and taxes (less subsidies, if any) on production and on imports.

GDP at Constant Prices : In order to compare the real value of output/expenditure over time, it is necessary to remove the effect of price changes. This is achieved by selecting the price structure of 1990 as the base according to which the goods and services in other years are revalued. The resulting aggregates after adjustment for price changes are known as constant-price estimates.

GDP Deflators : They are the aggregate price indices of the GDP of the economy. They measure implicitly the price level of the current GDP relative to the base year 1990 which is set at 100. The deflators are derived as the ratio of current price estimates to the corresponding constant price estimates.

Valuation of GDP Estimates: GNP, GDP, expenditure on GDP and income components of GDP are valued at market prices, that is, they are valued at the actual transacted prices and include customs and excise duties and other indirect taxes levied less subsidies.

With the availability of more comprehensive and up-to-date information, the estimates have been revised, especially for the last two years.

5 NATIONAL INCOME AND BALANCE OF PAYMENTS (cont'd)

Balance of Payments Estimates

The balance of payments is a systematic record of all economic transactions between residents of an economy and residents of the rest of the world in a given period. It is very useful for assessing the external performance of an economy and for formulating policies connected with it.

The transactions recorded in the balance of payments fall into the following three broad categories:

- a) The current account which consists of transactions relating to Singapore's current national income and expenditure. These include exports and imports of goods and services, income receipts and payments as well as current transfers.
- b) The capital and financial account which covers transactions affecting the foreign financial assets and liabilities of Singapore. Hence it records transactions that affect the national income in future periods.
- c) Official reserves which shows the changes in Singapore's foreign reserves holdings. It consists of Singapore's official holdings of monetary gold and foreign exchange assets, as well as Singapore's special drawing rights and reserve position in the International Monetary Fund.

The compilation of Singapore's balance of payments estimates is based on the principles recommended by the International Monetary Fund's "Balance of Payments Manual, 5th Edition". The structure and classification of Singapore's balance of payments accounts follow the fifth edition of the manual.

Studies to improve the balance of payments estimates are an on-going process and the estimates are revised as and when appropriate.

Sources of Data

The balance of payments estimates are compiled mainly from trade and shipping statistics, regular surveys of companies and administrative records of government departments and statutory authorities.

Definitions

Goods balance: It refers to the difference between total exports and total imports of goods on an f.o.b. basis.

Services balance: It refers to the difference between total exports and total imports of services.

Income balance: It refers to the difference between factor income accrued to Singapore residents from abroad and factor income accrued to non-Singapore residents.

Current account balance: It refers to the balance of transactions in goods, services, income and current transfers. It shows the net change in financial assets arising from Singapore's real transactions.

Capital and financial account balance: It refers to the balance of transactions in the capital and financial account. It reflects the net changes in Singapore's foreign financial assets and liabilities.

Overall balance: This is the overall balance of the current, capital and financial accounts. It is the balance of all of Singapore's transactions with non-residents and is financed by official reserves.

Foreign Investment

Data on foreign equity investment in Singapore are compiled from the balance sheets of all companies in Singapore which have part of their paid-up capital held by foreign residents.

Data on Singapore's overseas investment are gathered from the Survey of Singapore's Investment Abroad.

Definitions

Equity Capital: For incorporated companies, it refers to the amount of paid-up capital held by investors and the proportionate amount of reserves accrued to them. For branches of banks it is approximately equal to their "net fixed assets". For branches of other companies, it refers to the "net amount owed to their head offices".

Direct Investment: An investment is considered a direct investment when investors have effective influence over the policies and business operations of the companies they

invested in. Ownership of 10 per cent or more of the total paid-up shares is regarded as possession of effective influence.

Portfolio Investment: An investment is considered a portfolio investment when investors do not have effective influence over the policies and business operations of the companies they invested in.

Other References

The "Singapore System of National Accounts, 1995", published by the Singapore Department of Statistics, contains the detailed methodology used to compile Singapore's national accounts and has data series from 1960 to 1995. Significant changes in treatment and classification of the balance of payments are described in the occasional paper "Implementation of IMF Balance of Payments Manual, 5th Edition in Singapore's Balance of Payments". Analyses on the national output and balance of payments of Singapore may be found in the "Economic Survey of Singapore" published by the Ministry of Trade & Industry annually.

5.1 INDIGENOUS GROSS NATIONAL PRODUCT

(At Current Market Prices)

	1991	1996	1997	1998	1999	2000	2001
Million Dollars							
Total Gross Domestic Product	74,017.9	128,243.6	140,279.3	137,618.3	140,070.4	159,888.2	153,455.2
Share of Resident Foreigners & Resident Foreign Companies in GDP	25,422.2	43,196.7	48,481.0	47,803.2	54,130.1	63,959.6	63,342.1
Indigenous GDP	48,595.7	85,046.9	91,798.3	89,815.1	85,940.3	95,928.6	90,113.1
Factor Receipts of Singaporeans from Rest of the World	10,471.7	14,257.6	16,905.5	18,212.7	22,805.2	22,974.3	21,246.6
Indigenous GNP	59,067.4	99,304.5	108,703.8	108,027.8	108,745.5	118,902.9	111,359.7
Per Capita Indigenous GNP (\$)	21,130	32,370	34,829	34,027	33,752	36,438	33,551
Percentage Change Over Previous Year							
Total Gross Domestic Product	11.4	8.9	9.4	-1.9	1.8	14.1	-4.0
Share of Resident Foreigners & Resident Foreign Companies in GDP	18.3	11.5	12.2	-1.4	13.2	18.2	-1.0
Indigenous GDP	8.0	7.6	7.9	-2.2	-4.3	11.6	-6.1
Factor Receipts of Singaporeans from Rest of the World	12.3	-1.0	18.6	7.7	25.2	0.7	-7.5
Indigenous GNP	8.8	6.3	9.5	-0.6	0.7	9.3	-6.3
Per Capita Indigenous GNP (\$)	6.5	4.5	7.6	-2.3	-0.8	8.0	-7.9

5.2 OUTPUT, SAVING AND INVESTMENT

(At Current Market Prices)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Gross National Product (GNP)							
GNP at Market Prices	75,325.6	130,129.7	149,450.4	145,872.7	143,507.2	160,913.4	154,644.5
Gross Domestic Product (GDP) at Factor Cost	67,775.8	114,685.2	125,483.0	125,370.4	128,014.7	145,125.3	140,060.1
Taxes on Production & on Imports ¹	6,242.1	13,558.4	14,796.3	12,247.9	12,055.7	14,762.9	13,395.1
Net Factor Income from Abroad	1,307.7	1,886.1	9,171.1	8,254.4	3,436.8	1,025.2	1,189.3
Generation of Gross National Saving							
Gross National Saving	34,181.6	65,307.1	81,045.5	78,807.7	72,672.1	77,961.3	69,292.3
Gross Domestic Saving	33,678.8	64,931.8	73,668.0	72,539.3	71,240.1	79,199.9	70,570.6
GDP at Market Prices Less : Private & Government Consumption Expenditure	74,017.9	128,243.6	140,279.3	137,618.3	140,070.4	159,888.2	153,455.2
	40,886.6	65,145.6	69,447.4	67,750.9	71,646.2	80,993.2	83,116.2
Statistical Discrepancy	547.5	1,833.8	2,836.1	2,671.9	2,815.9	304.9	231.6
Net Factor Income from Abroad	1,307.7	1,886.1	9,171.1	8,254.4	3,436.8	1,025.2	1,189.3
Net Current Transfers from Abroad	-804.9	-1,510.8	-1,793.6	-1,986.0	-2,004.8	-2,263.8	-2,467.6
Finance of Gross Capital Formation							
Gross Capital Formation	25,750.7	47,581.5	54,137.2	45,827.5	44,659.7	50,514.6	37,248.5
Gross National Saving	34,181.6	65,307.1	81,045.5	78,807.7	72,672.1	77,961.3	69,292.3
Net Capital Transfers from Abroad	-58.5	-195.6	-257.0	-377.8	-324.0	-280.5	-288.9
Net Borrowing from/Lending (-) to Abroad	-8,372.4	-17,530.0	-26,651.3	-32,602.4	-27,688.4	-27,166.2	-31,754.9

1 Previously referred to as Indirect Taxes.

5.3 GROSS DOMESTIC PRODUCT BY INDUSTRY

Million Dollars

Industry

1991

1996

1997

1998

1999

2000

2001

At Current Market Prices

Total	74,017.9	128,243.6	140,279.3	137,618.3	140,070.4	159,888.2	153,455.2
Goods Producing Industries	26,278.0	43,650.6	47,950.0	48,335.6	48,207.5	55,614.1	48,610.8
Manufacturing	20,036.0	30,531.0	32,338.8	32,531.7	34,432.8	42,921.1	35,974.9
Construction	4,752.4	10,639.9	12,716.8	12,891.5	11,186.8	9,950.0	9,413.0
Utilities	1,280.0	2,237.5	2,640.7	2,696.6	2,376.6	2,538.8	3,033.6
Other Goods Industries ¹	209.6	242.2	253.7	215.8	211.3	204.2	189.3
Services Producing Industries	49,054.0	87,150.6	95,599.5	92,811.4	95,797.3	107,296.4	108,790.2
Wholesale & Retail Trade	11,183.5	20,981.2	21,690.6	20,010.1	21,921.6	26,663.2	25,407.1
Hotels & Restaurants	2,679.9	3,880.8	4,147.7	3,809.8	3,801.2	4,195.1	4,193.6
Transport & Communications	10,055.0	14,768.2	15,803.8	15,733.1	16,554.6	17,757.4	17,289.5
Financial Services	7,804.4	14,713.9	18,189.4	18,570.6	18,612.7	19,353.8	20,118.6
Business Services	9,051.3	18,597.5	20,308.2	19,014.8	18,796.0	21,555.9	22,463.4
Other Services Industries	8,279.9	14,209.0	15,459.8	15,673.0	16,111.2	17,771.0	19,318.0
Owner-Occupied Dwellings	3,063.6	4,379.8	4,699.8	4,995.2	5,115.7	5,379.0	5,665.7
Add : Taxes and Duties on Imports	637.7	760.4	752.9	724.2	822.2	1,048.2	1,105.3
Less : Imputed Bank Service Charge	5,015.4	7,697.8	8,722.9	9,248.1	9,872.3	9,449.5	10,716.8

At 1990 Market Prices

Total	71,183.4	110,729.5	120,190.8	120,081.2	128,404.5	141,571.5	138,682.6
Goods Producing Industries	24,957.6	38,453.9	41,367.3	41,597.4	44,549.8	49,342.6	44,945.4
Manufacturing	18,983.8	27,182.0	28,399.4	28,239.2	32,088.6	36,992.5	32,720.0
Construction	4,421.3	9,193.1	10,687.7	10,991.5	10,026.7	9,854.0	9,645.8
Utilities	1,330.4	1,868.6	2,069.8	2,170.9	2,240.8	2,313.4	2,405.9
Other Goods Industries ¹	222.1	210.2	210.4	195.8	193.7	182.7	173.7
Services Producing Industries	47,782.5	75,113.5	82,333.3	81,849.0	86,810.3	94,595.7	96,123.9
Wholesale & Retail Trade	11,103.3	18,523.2	19,713.4	18,901.6	20,234.2	23,312.8	22,658.7
Hotels & Restaurants	2,638.0	3,573.6	3,804.1	3,519.6	3,659.4	3,986.8	3,881.6
Transport & Communications	9,385.4	14,475.7	15,750.5	16,763.7	18,025.6	19,553.4	20,074.1
Financial Services	7,839.3	13,069.0	15,502.4	14,347.7	15,083.1	15,773.6	16,124.5
Business Services	8,851.5	13,541.4	14,674.2	15,015.1	15,570.3	16,706.3	17,182.1
Other Services Industries	7,965.0	11,930.6	12,888.7	13,301.3	14,237.7	15,262.8	16,202.9
Owner-Occupied Dwellings	2,849.7	3,679.6	3,893.3	4,180.8	4,494.3	4,772.3	4,981.6
Add : Taxes and Duties on Imports	617.0	672.1	693.9	706.3	834.4	1,035.1	1,121.3
Less : Imputed Bank Service Charge	5,023.4	7,189.6	8,097.0	8,252.3	8,284.3	8,174.2	8,489.6

Note : Data on industry are classified according to the Singapore Standard Industrial Classification 1996.

¹ Comprise Agriculture, Fishing and Quarrying.

5.4 EXPENDITURE ON GROSS DOMESTIC PRODUCT

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
At Current Market Prices							
Total	74,017.9	128,243.6	140,279.3	137,618.3	140,070.4	159,888.2	153,455.2
Private Consumption Expenditure	33,535.8	52,938.0	56,267.8	53,843.7	57,555.2	64,158.9	64,796.7
Government Consumption Expenditure	7,350.8	12,207.6	13,179.6	13,907.2	14,091.0	16,834.3	18,319.5
Gross Fixed Capital Formation	25,094.7	49,352.7	54,333.6	51,426.9	47,181.5	47,086.5	44,829.6
Increase in Stocks	656.0	-1,771.2	-196.4	-5,599.4	-2,521.8	3,428.1	-7,581.1
Net Exports of Goods & Services	7,928.1	17,350.3	19,530.8	26,711.8	26,580.4	28,685.3	33,322.1
Statistical Discrepancy	-547.5	-1,833.8	-2,836.1	-2,671.9	-2,815.9	-304.9	-231.6
At 1990 Market Prices							
Total	71,183.4	110,729.5	120,190.8	120,081.2	128,404.5	141,571.5	138,682.6
Private Consumption Expenditure	32,694.2	46,331.5	48,885.9	47,036.3	50,048.5	55,000.1	55,259.6
Government Consumption Expenditure	7,304.0	11,022.5	11,806.3	12,746.8	13,526.4	15,419.4	16,437.6
Gross Fixed Capital Formation	24,469.2	45,542.4	49,937.8	46,914.4	45,056.1	47,892.4	45,675.9
Increase in Stocks	605.4	-1,415.6	-69.9	-3,661.8	-735.8	2,286.8	-7,244.8
Net Exports of Goods & Services	6,885.8	11,217.5	12,020.6	19,152.5	22,849.3	23,468.6	30,933.7
Statistical Discrepancy	-775.2	-1,968.8	-2,389.9	-2,107.0	-2,340.0	-2,495.8	-2,379.4

5.5 PRIVATE CONSUMPTION EXPENDITURE

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
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At Current Market Prices

Total	33,535.8	52,938.0	56,267.8	53,843.7	57,555.2	64,158.9	64,796.7
Food & Beverages	6,791.5	8,210.8	8,514.9	8,214.5	8,453.3	8,785.6	9,158.4
Clothing & Footwear	2,636.1	2,991.7	3,012.7	2,477.7	2,739.1	3,141.3	2,758.0
Rent & Utilities	5,037.1	7,360.7	7,969.1	8,469.5	8,643.8	9,309.2	9,957.7
Furniture & Household Equipment	3,109.5	4,553.0	4,802.2	4,591.9	4,841.1	5,170.8	4,741.6
Medical Services	1,683.1	2,776.1	3,066.6	3,137.2	3,370.6	3,591.5	4,024.5
Transport & Communications	5,957.8	10,503.5	10,607.8	9,810.6	11,248.8	13,792.0	13,902.3
Recreation & Education	6,459.5	8,686.0	8,951.3	8,374.3	8,842.3	9,989.1	9,319.5
Other Goods & Services	7,407.5	11,812.6	12,984.3	10,891.9	11,596.4	12,653.8	12,756.8
Add : Residents' Expenditure Abroad	2,575.8	6,539.0	5,842.7	5,975.1	6,562.2	7,149.6	7,460.9
Less : Non-residents' Expenditure							
Locally	8,122.1	10,495.4	9,483.8	8,099.0	8,742.4	9,424.0	9,283.0

At 1990 Market Prices

Total	32,694.2	46,331.5	48,885.9	47,036.3	50,048.5	55,000.1	55,259.6
Food & Beverages	6,653.9	7,510.5	7,670.9	7,402.3	7,561.0	7,820.1	8,102.4
Clothing & Footwear	2,613.9	2,751.6	2,753.7	2,293.8	2,524.4	2,913.4	2,542.4
Rent & Utilities	4,718.5	6,250.4	6,675.7	7,198.3	7,637.8	8,048.0	8,488.6
Furniture & Household Equipment	3,069.0	4,205.1	4,416.2	4,188.5	4,441.9	4,767.2	4,353.5
Medical Services	1,559.3	1,979.8	2,083.5	2,060.7	2,219.8	2,330.0	2,539.5
Transport & Communications	5,723.2	8,274.7	8,132.4	8,147.4	9,109.3	10,677.3	11,319.9
Recreation & Education	6,379.9	7,809.3	7,996.6	7,276.7	7,721.0	8,858.1	8,029.3
Other Goods & Services	7,309.2	11,001.4	12,305.9	10,256.5	10,738.2	11,583.0	11,551.3
Add : Residents' Expenditure Abroad	2,588.6	6,152.4	5,516.0	5,792.2	6,306.5	6,727.8	6,840.0
Less : Non-residents' Expenditure							
Locally	7,921.3	9,603.7	8,665.0	7,580.1	8,211.4	8,724.8	8,507.3

5.6 GROSS FIXED CAPITAL FORMATION

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
At Current Market Prices							
Total	25,094.7	49,352.7	54,333.6	51,426.9	47,181.5	47,086.5	44,829.6
Construction & Works	10,929.8	26,937.4	31,440.4	30,382.0	25,871.9	24,170.2	22,654.7
Residential Buildings	4,431.3	14,094.7	16,767.5	15,824.6	13,030.0	10,664.3	8,668.1
Non-residential Buildings	4,940.9	10,226.3	11,217.1	10,679.1	9,036.8	9,554.3	9,111.1
Other Construction & Works	1,557.6	2,616.4	3,455.8	3,878.3	3,805.1	3,951.6	4,875.5
Transport Equipment	4,353.0	7,850.3	7,549.3	6,931.7	6,383.2	4,027.3	6,842.1
Machinery & Equipment	9,811.9	14,565.0	15,343.9	14,113.2	14,926.4	18,889.0	15,332.8
At 1990 Market Prices							
Total	24,469.2	45,542.4	49,937.8	46,914.4	45,056.1	47,892.4	45,675.9
Construction & Works	10,335.1	21,821.2	25,099.0	25,016.9	22,571.6	23,279.1	22,776.1
Residential Buildings	4,172.9	10,853.9	12,846.5	12,812.1	11,151.4	9,916.1	8,364.3
Non-residential Buildings	4,686.8	8,663.9	9,305.3	8,930.7	8,048.3	9,398.6	9,336.7
Other Construction & Works	1,475.4	2,303.4	2,947.2	3,274.1	3,371.9	3,964.4	5,075.1
Transport Equipment	4,181.7	8,369.0	8,000.9	6,562.1	5,776.0	3,443.7	5,257.9
Machinery & Equipment	9,952.4	15,352.2	16,837.9	15,335.4	16,708.5	21,169.6	17,641.9

5.7 GROSS DOMESTIC PRODUCT DEFLATORS BY INDUSTRY

(1990=100)

Industry	1991	1996	1997	1998	1999	2000	2001
Total	104.0	115.8	116.7	114.6	109.1	112.9	110.7
Goods Producing Industries	105.3	113.5	115.9	116.2	108.2	112.7	108.2
Manufacturing	105.5	112.3	113.9	115.2	107.3	116.0	109.9
Construction	107.5	115.7	119.0	117.3	111.6	101.0	97.6
Utilities	96.2	119.7	127.6	124.2	106.1	109.7	126.1
Other Goods Industries ¹	94.4	115.2	120.6	110.2	109.1	111.8	109.0
Services Producing Industries	102.7	116.0	116.1	113.4	110.4	113.4	113.2
Wholesale & Retail Trade	100.7	113.3	110.0	105.9	108.3	114.4	112.1
Hotels & Restaurants	101.6	108.6	109.0	108.2	103.9	105.2	108.0
Transport & Communications	107.1	102.0	100.3	93.9	91.8	90.8	86.1
Financial Services	99.6	112.6	117.3	129.4	123.4	122.7	124.8
Business Services	102.3	137.3	138.4	126.6	120.7	129.0	130.7
Other Services Industries	104.0	119.1	119.9	117.8	113.2	116.4	119.2
Owner-Occupied Dwellings	107.5	119.0	120.7	119.5	113.8	112.7	113.7

Note : Data on industry are classified according to the Singapore Standard Industrial Classification 1996.

1 Comprise Agriculture, Fishing and Quarrying.

5.8 DEFLATORS OF EXPENDITURE ON GROSS DOMESTIC PRODUCT

(1990=100)

	1991	1996	1997	1998	1999	2000	2001
Total	104.0	115.8	116.7	114.6	109.1	112.9	110.7
Private Consumption Expenditure	102.6	114.3	115.1	114.5	115.0	116.7	117.3
Government Consumption Expenditure	100.6	110.8	111.6	109.1	104.2	109.2	111.4
Gross Fixed Capital Formation	102.6	108.4	108.8	109.6	104.7	98.3	98.1
Exports of Goods & Services	97.5	89.9	88.6	88.6	89.0	93.7	94.1
Imports of Goods & Services	96.6	86.9	85.2	84.6	86.6	91.5	92.5

5.9 INCOME COMPONENTS OF GROSS DOMESTIC PRODUCT

(At Current Market Prices)

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	74,017.9	128,243.6	140,279.3	137,618.3	140,070.4	159,888.2	153,455.2
Compensation of Employees	32,543.1	55,557.9	60,680.9	63,167.7	61,028.0	67,566.1	71,215.1
Gross Operating Surplus	34,814.4	60,128.0	65,281.9	61,890.2	65,570.3	75,952.0	66,982.0
of Financial Corporations	4,716.3	7,943.4	10,276.6	10,896.2	10,683.6	11,627.7	12,103.7
of Non-financial Corporations	26,735.8	46,921.7	49,481.4	46,541.2	50,603.2	59,159.4	50,942.7
of Others ¹	8,377.7	12,960.7	14,246.8	13,700.9	14,155.8	14,614.4	14,652.4
Less : Imputed Bank Service Charge	5,015.4	7,697.8	8,722.9	9,248.1	9,872.3	9,449.5	10,716.8
Taxes on Production & on Imports	6,242.1	13,558.4	14,796.3	12,247.9	12,055.7	14,762.9	13,395.1
Statistical Discrepancy	418.3	-1,000.7	-479.8	312.5	1,416.4	1,607.2	1,863.0

1 Refers to unincorporated enterprises and non-profit institutions.

5.10 BALANCE OF PAYMENTS

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
A Current Account Balance	8,430.9	17,725.6	26,908.3	32,980.2	28,012.4	27,446.7	32,043.8
Goods Balance	-190.2	3,091.6	1,531.0	24,948.2	19,028.7	19,948.7	23,063.5
Exports of Goods	105,955.6	177,681.4	186,688.0	185,086.0	195,790.6	239,724.5	219,446.1
Imports of Goods	106,145.8	174,589.8	185,157.0	160,137.8	176,761.9	219,775.8	196,382.6
Services Balance	8,118.3	14,258.7	17,999.8	1,763.6	7,551.7	8,736.6	10,258.6
Exports of Services	23,880.2	42,073.5	45,836.9	30,333.2	40,153.4	46,135.7	46,886.4
Transportation	4,348.9	7,336.9	7,658.2	7,457.2	7,757.5	9,198.5	8,456.3
Travel	7,973.8	10,369.8	9,358.1	7,973.4	8,616.5	9,298.4	9,157.1
Insurance	197.4	566.5	1,281.7	728.4	849.7	1,650.3	2,005.5
Government	161.7	137.9	137.9	162.4	137.9	137.6	137.6
Others	11,198.4	23,662.4	27,401.0	14,011.8	22,791.8	25,850.9	27,129.9
Imports of Services	15,761.9	27,814.8	27,837.1	28,569.6	32,601.7	37,399.1	36,627.8
Transportation	6,554.9	8,852.8	9,441.5	9,678.3	10,774.8	13,885.3	12,593.6
Travel	3,184.3	8,134.4	7,263.4	7,428.0	8,160.0	8,894.4	9,283.4
Insurance	1,437.1	1,413.3	1,480.1	1,226.2	1,360.8	1,663.9	1,482.2
Government	123.2	142.1	176.3	194.0	192.3	197.0	241.3
Others	4,462.4	9,272.2	9,475.8	10,043.1	12,113.8	12,758.5	13,027.3
Income Balance	1,307.7	1,886.1	9,171.1	8,254.4	3,436.8	1,025.2	1,189.3
Income Receipts	13,057.1	17,455.0	20,156.3	21,196.3	27,431.4	28,091.4	26,733.1
Income Payments	11,749.4	15,568.9	10,985.2	12,941.9	23,994.6	27,066.2	25,543.8
Current Transfers (Net)	-804.9	-1,510.8	-1,793.6	-1,986.0	-2,004.8	-2,263.8	-2,467.6
General Government	-274.0	-330.2	-406.2	-390.7	-407.8	-551.4	-612.9
Other Sectors	-530.9	-1,180.6	-1,387.4	-1,595.3	-1,597.0	-1,712.4	-1,854.7
B Capital and Financial Account Balance	3,993.4	-12,578.5	-20,512.3	-35,538.1	-19,577.4	-18,962.0	-33,916.0
Capital Account (Net)	-58.5	-195.6	-257.0	-377.8	-324.0	-280.5	-288.9
Financial Account (Net)	4,051.9	-12,382.9	-20,255.3	-35,160.3	-19,253.4	-18,681.5	-33,627.1
Direct Investment	7,534.3	2,511.1	1,902.1	9,362.3	12,757.1	759.2	-2,879.1
Portfolio Investment	-1,566.9	-16,638.6	-22,219.6	-16,619.6	-9,537.0	-17,069.6	-8,127.7
Official	-	-13,825.8	-16,490.9	-12,487.4	-13,191.1	-9,574.6	-7,975.0
Other Sectors	-1,566.9	-2,812.8	-5,728.7	-4,132.2	3,654.1	-7,495.0	-152.7
Other Investment	-1,915.5	1,744.6	62.2	-27,903.0	-22,473.5	-2,371.1	-22,620.3
Assets	3,163.0	-19,554.2	-56,227.1	213.2	-33,902.8	-10,298.2	-27,721.2
Banks	1,771.1	-4,981.3	-18,384.6	3,711.2	-18,077.1	2,527.6	-18,380.7
Official	-1.0	-4,165.0	-2,898.7	-2,537.8	-1,534.4	-4,065.6	-1,036.1
Other Sectors	1,392.9	-10,407.9	-34,943.8	-960.2	-14,291.3	-8,760.2	-8,304.4
Liabilities	-5,078.5	21,298.8	56,289.3	-28,116.2	11,429.3	7,927.1	5,100.9
Banks	-3,441.9	11,324.9	27,746.2	-21,400.5	5,441.4	12,785.5	12,648.3
Other Sectors (incl Official)	-1,636.6	9,973.9	28,543.1	-6,715.7	5,987.9	-4,858.4	-7,547.4
C Net Errors and Omissions	-5,161.5	5,259.5	5,459.7	7,538.5	-1,113.8	3,350.7	270.3
D Overall Balance (A+B+C)	7,262.8	10,406.6	11,855.7	4,980.6	7,321.2	11,835.4	-1,601.9
E Official Reserves (Net)¹	-7,262.8	-10,406.6	-11,855.7	-4,980.6	-7,321.2	-11,835.4	1,601.9
Special Drawing Rights	-4.2	-9.4	-38.3	-111.8	12.1	-29.6	-56.5
Reserve Position in the Fund	12.8	1.5	-135.5	-50.2	-294.0	40.5	-51.8
Foreign Exchange Assets	-7,271.4	-10,398.7	-11,681.9	-4,818.6	-7,039.3	-11,846.3	1,710.2

1 Increase in assets is indicated by a minus (-) sign.

5.11 STOCK OF FOREIGN EQUITY INVESTMENT IN SINGAPORE BY INDUSTRY

(End of Period)

								Million Dollars
Industry	1989	1994	1995	1996	1997	1998	1999	
Total (I+II)	47,030.1	86,811.7	99,215.7	115,648.0	138,960.7	156,859.5	178,019.9	
(I) Direct Equity Investment	41,063.0	74,605.2	84,267.0	94,005.3	112,130.6	124,661.0	150,451.9	
Agriculture & Fishing	45.2	34.5	34.3	46.1	52.6	44.5	47.6	
Mining & Quarrying	-49.5	2.1	-2.3	-12.7	-18.2	-5.6	-14.3	
Manufacturing	17,784.8	27,143.1	30,626.4	33,142.1	38,943.9	41,456.9	53,893.1	
Construction	700.9	611.5	969.0	1,010.5	1,174.5	1,424.6	1,436.6	
Commerce	4,702.0	11,461.0	11,697.2	12,839.3	14,582.5	17,938.8	21,996.0	
Transport & Storage	907.0	2,534.8	2,654.5	3,136.4	3,754.4	4,639.5	4,322.9	
Financial & Business Services	16,877.6	32,797.3	38,238.1	43,702.3	53,525.5	59,054.4	68,840.3	
Other Services	94.9	20.9	49.8	141.2	115.3	108.0	-70.1	
(II) Portfolio & Other Equity Investment	5,967.1	12,206.5	14,948.7	21,642.7	26,830.1	32,198.5	27,568.0	

Note : Negative figures result when outstanding amount due from foreign head offices to their Singapore branches are larger than the amount due from branches to the head offices.

5.12 STOCK OF SINGAPORE'S EQUITY INVESTMENT ABROAD BY INDUSTRY

(End of Period)

							Million Dollars
Industry	1994	1995	1996	1997	1998	1999	
Total (I+II)	37,065	50,082	57,865	71,226	64,867	72,995	
(I) Direct Equity Investment Abroad ¹	29,765	39,145	42,224	57,192	53,211	58,754	
Manufacturing	7,042	10,218	9,032	11,414	13,871	15,812	
Construction	236	411	302	499	528	315	
Commerce	2,800	3,777	3,602	4,125	3,795	3,834	
Transport & Storage	893	1,213	1,186	2,091	2,408	3,179	
Financial	15,473	19,612	24,215	33,582	27,651	30,620	
Real Estate	1,989	2,660	2,979	3,828	3,767	3,662	
Business Services	1,005	905	538	1,193	489	557	
Others	329	349	371	460	703	775	
(II) Portfolio Equity Investment Abroad	7,300	10,937	15,641	14,034	11,656	14,241	

Notes : Data breakdown by industry prior to 1990 are not available.

Data prior to 1994 exclude investment undertaken by financial institutions such as banks, finance companies and insurance companies.

1 Figures include stocks of attributable reserve of overseas subsidiaries and associates.

5.13

STOCK OF FOREIGN EQUITY INVESTMENT IN SINGAPORE BY COUNTRY

(End of Period)

Million Dollars

	1989	1994	1995	1996	1997	1998	1999
Total (I+II)	47,030.1	86,811.7	99,215.7	115,648.0	138,960.7	156,859.5	178,019.9
(I) Direct Equity Investment	41,063.0	74,605.2	84,267.0	94,005.3	112,130.6	124,661.0	150,451.9
Asia	13,684.6	25,800.9	28,388.4	31,016.9	33,717.7	39,686.1	40,367.1
Asean	2,059.4	4,928.6	5,677.3	5,907.7	6,786.2	7,982.7	8,028.0
Brunei	83.0	187.4	206.2	206.4	168.0	176.1	202.6
Indonesia	157.8	575.0	788.2	873.0	1,092.4	1,389.3	1,441.3
Malaysia	1,746.2	2,910.9	3,523.9	3,868.9	4,656.3	5,498.6	4,956.7
Philippines	20.0	351.0	356.7	135.2	128.5	79.7	638.4
Thailand	52.3	904.3	801.8	823.2	716.3	736.0	762.0
Cambodia ¹	-	-	-	-	-2.3	0.4	0.7
Myanmar ¹	-	-	-	-	25.2	98.8	20.0
Vietnam ²	-	-	0.4	1.1	1.8	3.8	6.3
China	110.9	234.0	335.3	445.9	539.1	748.0	877.6
Hong Kong	2,766.8	3,623.1	3,910.4	4,172.4	3,772.4	4,338.9	4,044.7
Japan	8,426.6	15,806.3	16,969.5	19,132.2	20,266.0	22,790.2	23,102.1
South Korea	-26.5	101.2	230.2	-26.7	5.8	593.6	724.0
Taiwan	179.7	725.2	927.9	1,037.4	1,842.7	2,700.0	3,064.4
Others	167.8	382.5	337.8	348.1	505.5	632.8	526.2
Europe	10,927.9	22,383.5	24,815.7	29,734.1	33,833.0	39,927.7	57,220.9
European Union	8,043.1	15,828.3	17,385.3	20,548.8	22,735.9	25,826.1	40,255.4
France	385.3	1,999.9	2,103.1	2,109.5	3,271.7	3,607.8	3,414.7
Germany	901.3	1,345.3	1,894.9	1,967.6	1,773.7	1,482.1	1,554.7
Netherlands	2,747.4	4,194.6	4,397.2	6,921.8	6,941.8	9,221.5	21,433.8
United Kingdom	3,851.9	6,616.8	6,666.3	7,011.1	8,305.8	9,045.4	10,479.9
Others	157.2	1,671.7	2,323.8	2,538.8	2,442.9	2,469.2	3,372.3
Switzerland	2,203.5	5,753.5	7,106.7	8,642.6	10,418.7	13,347.3	15,362.3
Others	681.3	801.7	323.6	542.7	678.4	754.3	1,603.2
Australia	3,076.3	3,281.2	3,131.6	3,214.9	3,258.2	3,558.7	2,687.7
Canada	2,022.2	2,280.8	2,870.6	2,992.1	3,685.5	3,112.7	4,127.9
New Zealand	121.2	84.4	99.3	139.7	149.8	164.8	163.3
United States	8,335.3	12,051.7	14,253.0	15,775.8	20,679.4	19,176.6	21,767.8
Other Countries	2,895.5	8,722.8	10,708.4	11,131.8	16,807.0	19,034.4	24,117.2
(II) Portfolio & Other Equity Investment	5,967.1	12,206.5	14,948.7	21,642.7	26,830.1	32,198.5	27,568.0

1 With effect from 1997, Cambodia and Myanmar are included in Asean total.

2 With effect from 1995, Vietnam is included in Asean total.

5.14 STOCK OF SINGAPORE'S EQUITY INVESTMENT ABROAD BY COUNTRY

(End of Period)

Million Dollars

Country	1994	1995	1996	1997	1998	1999
Total (I+II)	37,065	50,082	57,865	71,226	64,867	72,995
(I) Direct Equity Investment Abroad	29,765	39,145	42,224	57,192	53,211	58,754
Asia	17,358	23,264	24,057	30,782	31,918	34,700
Asean	9,680	12,993	12,440	13,849	12,751	13,707
Brunei	77	35	25	17	23	44
Indonesia	1,997	3,305	3,071	5,416	3,363	3,302
Malaysia	6,500	7,715	6,945	6,165	6,082	6,119
Philippines	382	619	826	879	1,095	1,352
Thailand	723	977	1,029	726	1,317	2,007
Cambodia ¹	5	65	100	28	54	52
Myanmar ¹	29	52	55	158	-16	71
Vietnam ²	127	342	543	647	836	761
China	1,533	3,082	5,083	7,932	9,350	9,748
Hong Kong	4,940	5,414	4,683	5,779	5,373	5,475
India	56	168	267	208	287	350
Japan	171	395	357	534	825	1,398
Taiwan	496	570	523	924	1,209	1,611
Others	322	527	549	1,370	1,466	1,647
Europe	2,200	3,865	5,425	8,114	3,747	4,883
France	54	53	73	88	87	84
Netherlands	453	450	447	164	234	41
United Kingdom	930	2,447	3,954	5,752	1,130	1,414
Others	764	916	953	2,111	491	603
Australia	999	1,257	1,204	1,114	1,107	1,193
New Zealand	2,076	2,038	1,363	1,265	504	479
United States	1,681	2,089	2,275	2,607	2,706	3,741
Other Countries	5,452	6,632	7,900	13,310	13,228	13,759
(II) Portfolio Equity Investment	7,300	10,937	15,641	14,034	11,656	14,241

Note : Data prior to 1994 exclude investment undertaken by financial institutions such as banks, finance companies and insurance companies.

1 With effect from 1997, Cambodia and Myanmar are included in Asean total.

2 With effect from 1995, Vietnam is included in Asean total.

RESEARCH AND DEVELOPMENT

6 RESEARCH AND DEVELOPMENT

The R&D Sector

The data on R&D are collected from the National Survey of R&D in Singapore which covers R&D activities in the private sector, higher education sector, government sector and the public research institutes/centres. The survey is based on the guidelines given in the OECD Frascati Manual and is thus comparable with R&D surveys conducted by other countries which are based on the OECD methodology.

Definitions

R&D Expenditure : Includes capital expenditure (acquisition of fixed tangible assets involved in R&D activities), R&D manpower costs, and other R&D-related operating expenditures. Figures for R&D expenditure in each current year are expressed in nominal terms and are not adjusted for inflation.

Research Scientists and Engineers (RSEs) : Refer to personnel who hold formal university qualifications and are principally employed in a research capacity. RSEs also include managers and administrators engaged in the planning and management of the research.

Researcher : Refers to RSEs plus personnel who are principally employed in a research capacity though without formal university qualifications.

Patents : Refers to those patents which are the result of R&D activities carried out in Singapore. Patent number for the same invention is counted as one irrespective of the number of countries the patent is being applied or awarded.

6.1 ORGANISATIONS PERFORMING R&D BY SECTOR

								Number
Sector	1990	1995	1996	1997	1998	1999	2000	
Total	292	470	526	543	604	624	582	
Private	266	440	496	508	571	593	539	
Higher Education	5	6	6	6	6	6	6	
Government	14	14	11	14	13	12	24	
Public Research Institutes & Centres	7	10	13	15	14	13	13	

Source : Agency for Science, Technology and Research

6.2 R&D MANPOWER BY OCCUPATION

							Number
Occupation	1990	1995	1996	1997	1998	1999	2000
Total	7,094	13,025	15,419	17,219	19,007	20,612	25,220
Researchers							
RSE ¹	4,329	8,340	10,153	11,302	12,655	13,817	18,302
Non-Degree	-	1,760	2,101	2,039	2,275	2,465	2,498
Technicians	1,717	1,679	1,783	2,297	2,203	2,375	2,262
Supporting Staff	1,048	1,246	1,382	1,581	1,874	1,955	2,158

Source : Agency for Science, Technology and Research

1 RSE denotes Research Scientists and Engineers.

6.3 R&D EXPENDITURE BY SECTOR

							Million Dollars
Sector	1990	1995	1996	1997	1998	1999	2000
Total	571.7	1,366.6	1,792.1	2,104.6	2,492.3	2,656.4	3,009.5
Private	309.5	881.4	1,133.4	1,314.5	1,536.1	1,670.9	1,866.0
Higher Education	119.7	193.4	238.7	277.7	305.8	310.0	338.3
Government	99.4	110.4	166.8	216.1	299.8	304.9	423.8
Public Research Institutes & Centres	43.1	181.4	253.2	296.2	350.5	370.6	381.4

Source : Agency for Science, Technology and Research

6.4 R&D EXPENDITURE BY AREA OF RESEARCH, 2000

Million Dollars					
Area of Research	Total	Private Sector	Higher Education Sector	Government Sector	Public Research Institutes & Centres
Total	3,009.5	1,866.0	338.3	423.8	381.4
Agricultural Sciences	29.7	6.4	1.1	1.6	20.7
Computer & Related Sciences	626.9	451.1	29.8	86.8	59.1
Engineering	1,543.8	983.2	166.4	229.5	164.7
Biomedical Sciences	145.5	42.0	56.5	32.5	14.4
Natural Sciences	247.6	81.0	61.2	32.1	73.3
Others	416.1	302.3	23.4	41.3	49.2

Source : Agency for Science, Technology and Research

6.5 R&D EXPENDITURE BY TYPE OF COSTS, 2000

Million Dollars					
Type of Costs	Total	Private Sector	Higher Education Sector	Government Sector	Public Research Institutes & Centres
Total	3,009.5	1,866.0	338.3	423.8	381.4
Capital Costs	562.9	363.2	60.2	64.6	74.9
Land, Buildings & Other Structures	54.0	47.7	-	0.6	5.7
Vehicles, Plants, Machinery & Equipment	508.9	315.5	60.2	64.0	69.2
Manpower Costs	1,256.2	693.6	233.1	140.2	189.3
Researchers	1,078.8	604.1	212.2	113.9	148.6
RSE ¹	957.7	516.4	192.5	103.2	145.7
Research-based postgrad students	18.7	-	18.7	-	-
Non-Degree	102.4	87.7	1.0	10.7	3.0
Technicians	69.3	35.7	10.8	9.4	13.5
Others	108.0	53.8	10.1	17.0	27.2
Other Operating Costs	1,190.4	809.2	45.0	219.0	117.2

Source : Agency for Science, Technology and Research

¹ RSE denotes Research Scientists and Engineers.

6.6 R&D OUTPUT

	1995	1996	1997	1998	1999	2000
Patents Owned ¹ (No)	256	614	831	847	1,077	1,268
Patents Applied (No)	242	316	490	579	673	902
Patents Awarded (No)	51	91	132	136	161	285
Revenue from Royalties & Licensing of Patents / New Technologies Developed in Singapore (\$m)	111	27	27	51	672	75
Revenue from Royalties & Licensing of Patents / New Technologies Acquired from External Sources(\$m)	7	17	31	24	105	13
Sales revenue derived from commercialised products / processes attributed to R&D performed in Singapore (\$m)	na	6,381	9,647	13,370	10,664	15,578
Sales revenue derived from commercialised products / processes attributed to R&D performed in Singapore and launched within the last 2 years (\$m)	na	5,035	6,097	8,026	8,060	8,326

Source : Agency for Science, Technology and Research

¹ As at end of period.

liabilities. This ratio measures the dependence of companies on external funding, i.e. funding which is not from its shareholders or its overseas headquarters in the case of the local franchise of a foreign enterprise. The lower this ratio, the higher is the company's dependence on external funding.

Current Ratio: It is defined as the ratio of current assets (including the outstanding funds due from holding and related companies) to current liabilities (including the outstanding liabilities to holding and related companies). i.e. their ability to meet current debt payments when due. A ratio of 1 indicates that the company has exactly balanced its current liabilities with current assets. The further is the ratio below 1, the higher is the risk of the company running into a liquidity problem. A ratio above 1 indicates an excess of liquidity in the company.

Data on the Corporate Sector covered all companies incorporated or registered in Singapore, including branches of foreign companies. Partnerships and sole proprietorships were however not included because of the difficulty in obtaining financial statements for such business enterprises. For companies with up-to-date accounts filed with the Singapore Registry of Companies and Businesses (RCB), the data were extracted from those accounts. For the remaining companies, data were collected directly via a postal survey of the companies.

THE CORPORATE SECTOR

Local-controlled companies: Refer to companies with at least 50 per cent of their ordinary paid-up shares owned by shareholders who have their residential or registered address in Singapore, with the exception of subsidiaries of local companies which are foreign-controlled.

Foreign-controlled companies: Refer to companies with at least 50 per cent of their ordinary paid-up shares owned by shareholders who have their residential or registered address outside Singapore. They include branches of foreign corporations as well as subsidiaries of foreign-controlled companies.

Equity Ratio: It is defined as the ratio of shareholders' equity to the total debt or

Industry	1991	1992	1993	1994	1995	1996	1997
Other References	142.42	142.42	142.42	142.42	142.42	142.42	142.42
Agriculture & Fisheries	11	11	11	11	11	11	11
Manufacturing	1,097	1,097	1,097	1,097	1,097	1,097	1,097
Construction	1,133	1,133	1,133	1,133	1,133	1,133	1,133
Commerce	14,729	14,729	14,729	14,729	14,729	14,729	14,729
Transport & Storage	2,642	2,642	2,642	2,642	2,642	2,642	2,642
Financial & Business Services	4,256	4,256	4,256	4,256	4,256	4,256	4,256
Social & Personal Services	1,101	1,101	1,101	1,101	1,101	1,101	1,101
Others	29	29	29	29	29	29	29

Data on the Corporate Sector covered all companies incorporated or registered in Singapore, including branches of foreign companies. Partnerships and sole proprietorships were, however, not included because of the difficulty in obtaining financial statements for such business enterprises. For companies with up-to-date accounts filed with the Singapore Registry of Companies and Businesses (RCB), the data were extracted from those accounts. For the remaining companies, data were collected directly via a postal survey of the companies.

Definitions

Local-controlled companies: Refer to companies with at least 50 per cent of their ordinary paid-up shares owned by shareholders who have their residential or registered address in Singapore, with the exception of subsidiaries of local companies which are foreign-controlled.

Foreign-controlled companies: Refer to companies with at least 50 per cent of their ordinary paid-up shares owned by shareholders who have their residential or registered address outside Singapore. They include branches of foreign corporations as well as subsidiaries of foreign-controlled companies.

Equity Ratio: It is defined as the ratio of shareholders' equity to the total debt or

liabilities. This ratio measures the dependence of companies on external funding i.e. funding which is not from its shareholders or to its overseas headquarters in the case of the local branch of a foreign enterprise. The lower is this ratio, the higher is the company's dependence on external funding.

Current Ratio: It is defined as the ratio of current assets (including the outstanding funds due from holding and related companies) to current liabilities (including the outstanding amount due to holding and related companies). This ratio measures the liquidity of companies, i.e. their ability to meet current debt payments when due. A ratio of 1 indicates that the company has exactly balanced its current liabilities with current assets. The further is the ratio below 1, the higher is the risk of the company running into a liquidity problem. A ratio above 1 indicates an excess of liquidity in the company.

Other References

The report "Singapore's Corporate Sector, 1998-1999", published by the Singapore Department of Statistics, contains analyses of data and detailed tables showing the aggregated balance sheets and profit and loss accounts.

7.1 ACTIVE COMPANIES BY INDUSTRY

(End of Period)

Industry	Number						
	1989	1994	1995	1996	1997	1998	1999
Total	34,653	49,332	62,390	76,256	89,854	91,283	93,590
Agriculture & Fishing	119	62	77	197	211	259	244
Manufacturing	4,734	6,607	7,849	7,565	8,127	8,789	9,140
Construction	2,558	3,791	5,036	5,296	6,215	6,916	6,051
Commerce	14,389	20,015	24,421	30,432	37,225	37,355	37,806
Transport & Storage	2,672	4,034	4,849	5,500	6,582	6,409	6,513
Financial & Business Services	8,935	13,387	17,726	24,847	28,820	28,899	31,101
Social & Personal Services	1,212	1,416	2,407	2,383	2,640	2,610	2,695
Others	34	20	25	36	34	56	40

7.2 LOCAL-CONTROLLED COMPANIES BY INDUSTRY

(End of Period)

Industry	Number						
	1989	1994	1995	1996	1997	1998	1999
Total	26,739	36,242	51,100	65,271	73,664	71,925	74,540
Agriculture & Fishing	111	55	72	183	194	247	227
Manufacturing	3,675	4,697	6,465	6,444	6,864	7,451	7,318
Construction	2,236	3,132	4,765	4,887	5,726	6,475	5,628
Commerce	11,140	14,725	19,673	25,637	30,050	28,636	29,073
Transport & Storage	2,047	2,937	3,987	4,700	5,286	5,096	4,936
Financial & Business Services	6,396	9,399	14,030	21,171	23,082	21,557	24,760
Social & Personal Services	1,105	1,290	2,092	2,220	2,434	2,410	2,565
Others	29	7	16	29	28	53	33

7.3 FOREIGN-CONTROLLED COMPANIES BY INDUSTRY

(End of Period)

Industry	Number						
	1989	1994	1995	1996	1997	1998	1999
Total	7,914	13,090	11,290	10,985	16,190	19,358	19,050
Agriculture & Fishing	8	7	5	14	17	12	17
Manufacturing	1,059	1,910	1,384	1,121	1,263	1,338	1,822
Construction	322	659	271	409	489	441	423
Commerce	3,249	5,290	4,748	4,795	7,175	8,719	8,733
Transport & Storage	625	1,097	862	800	1,296	1,313	1,577
Financial & Business Services	2,539	3,988	3,696	3,676	5,738	7,342	6,341
Social & Personal Services	107	126	315	163	206	190	130
Others	5	13	9	7	6	3	7

7.4 TOTAL ASSETS / LIABILITIES OF COMPANIES BY MAIN INDUSTRIAL SECTORS

(End of Period)

Industry	Billion Dollars						
	1989	1994	1995	1996	1997	1998	1999
Total	882.2	1,272.8	1,444.2	1,657.4	1,948.6	2,089.8	2,114.8
Financial Services Sector	685.0	878.6	967.0	1,102.7	1,295.6	1,358.4	1,383.6
Non-Financial Sectors	197.2	394.2	477.3	554.7	653.0	731.4	731.2
Manufacturing	57.2	96.6	108.3	121.9	146.7	153.6	164.2
Construction	9.6	21.4	27.6	32.6	39.2	50.2	41.5
Commerce	49.8	104.5	119.8	134.9	156.2	170.9	166.3
Transport & Storage	23.4	46.5	50.3	58.6	73.6	91.4	93.9
Insurance Services	86.8	20.2	21.8	25.1	26.6	26.3	33.5
Real Estate & Business Services	46.0	99.5	125.2	155.8	181.6	204.5	196.7
Others	2.6	5.3	24.2	25.9	29.1	34.3	35.2

7.5 EQUITY RATIOS OF COMPANIES BY MAIN INDUSTRIAL SECTORS

(End of Period)

	1989	1994	1995	1996	1997	1998	1999
Total	0.17	0.21	0.26	0.26	0.26	0.25	0.25
Financial Services Sector	0.10	0.14	0.20	0.19	0.20	0.19	0.18
Non-Financial Sectors	0.38	0.38	0.39	0.38	0.37	0.36	0.37
Manufacturing	0.49	0.49	0.51	0.51	0.50	0.52	0.50
Construction	0.15	0.10	0.11	0.12	0.10	0.12	0.11
Commerce	0.27	0.26	0.26	0.26	0.24	0.27	0.28
Transport & Storage	0.42	0.48	0.50	0.47	0.44	0.47	0.47
Insurance Services	0.19	0.16	0.17	0.16	0.16	0.18	0.15
Real Estate & Business Services	0.41	0.45	0.44	0.41	0.38	0.32	0.36
Others	0.46	0.42	0.60	0.63	0.63	0.59	0.55

7.6 CURRENT RATIOS OF COMPANIES BY MAIN INDUSTRIAL SECTORS

(End of Period)

	1989	1994	1995	1996	1997	1998	1999
Total	1.04	1.05	1.08	1.05	1.04	1.04	1.04
Financial Services Sector	1.04	1.04	1.09	1.07	1.06	1.05	1.04
Non-Financial Sectors	1.07	1.08	1.05	1.02	1.01	1.01	1.02
Manufacturing	1.39	1.35	1.33	1.25	1.28	1.28	1.23
Construction	0.91	0.88	0.91	0.98	0.94	0.95	0.90
Commerce	1.10	1.11	1.10	1.08	1.06	1.12	1.14
Transport & Storage	0.99	0.99	0.99	0.99	1.06	1.07	0.98
Insurance Services	2.04	2.53	3.44	4.06	4.01	3.07	3.77
Real Estate & Business Services	0.62	0.74	0.65	0.61	0.58	0.59	0.65
Others	0.98	0.86	0.71	0.78	1.02	1.02	0.88

BUSINESS FORMATION AND CESSATION

Year	2002	2001	2000	1999	1998	1997	1996	1995
1.1. Coverage and Source of Data	Data on business formation and cessation cover all companies and businesses registered with the Registrar of Companies & Business (RCB) as well as those registered with professional bodies of legal services, medical services, etc. These data are compiled from the administrative records in RCB and other sources (e.g. Singapore Department of Statistics, surveys, government gazettes and newspapers).							
1.2. Definitions	Company: Refers to an organisation that operates on a large scale and generally has a large number of employees. Its legal status is classified either as a public or private company. A company is functional, operates with several subsidiaries, and has proper audited accounts for taxation and regulatory purposes. It can also							
	Cessation: Refers to companies and businesses which have ceased operation during the reference year. Cessation status includes: ceased operations, struck off, liquidated, dissolved and under receivership.							
	Partnership: Refers to companies and businesses registered with RCB and other professional bodies during the reference year.							
	Business: Refers to a firm operating on a small scale. Its legal status is either as a sole proprietorship or partnership, often with a small number of employees. To the nature of business, a business may only operate a single business activity at establishment level and may or may not keep audited accounts. A business in this context also refers to a commercial entity registered with professional bodies of legal services, medical services, etc.							
	Business: Refers to a firm operating on a small scale. Its legal status is either as a sole proprietorship or partnership, often with a small number of employees. To the nature of business, a business may only operate a single business activity at establishment level and may or may not keep audited accounts. A business in this context also refers to a commercial entity registered with professional bodies of legal services, medical services, etc.							
	Business: Refers to a firm operating on a small scale. Its legal status is either as a sole proprietorship or partnership, often with a small number of employees. To the nature of business, a business may only operate a single business activity at establishment level and may or may not keep audited accounts. A business in this context also refers to a commercial entity registered with professional bodies of legal services, medical services, etc.							

BUSINESS FORMATION AND CESSATION

Industry	2002	2001	2000	1999	1998	1997	1996	1995
Total	1,503	1,303	1,175	1,012	874	748	612	503
Agency, Printing, Publishing & Quarrying	30	22	16	19	27	32	20	20
Manufacturing	616	518	500	410	435	430	226	226
Construction	349	349	300	280	283	204	111	111
Commerce	1,262	1,060	952	802	606	432	284	284
Transport & Communication	459	397	372	340	292	214	175	175
Financial & Insurance Services	1,341	1,061	1,090	1,182	936	782	717	717
Others	150	151	194	152	88	65	40	40

Coverage and Sources of Data

Data on business formation and cessation cover all companies and businesses registered with the Registry of Companies & Businesses (RCB) as well as those registered with professional bodies eg legal services, medical services, etc. These data are compiled from the administrative records in RCB and other sources (eg. Singapore Department of Statistics' surveys, government gazettes and newspapers.)

Definitions

Company: Refers to an organisation that operates on a large scale and generally has a large number of employees. By legal status, a company is classified either as a public or private company. A company is typically multi-functional, operates with several business activities, and has proper audited accounts for taxation and regulatory purposes. It can also

operate as an enterprise and have several branches in different locations.

Business: Refers to a firm operating on a small scale. By legal status, a business either operates as a sole-proprietorship or partnership, often with a small number of employees. Due to the nature of business, a business may only operate a single business activity at establishment level and may or may not keep audited accounts. A business in this context, also refers to a commercial entity registered with professional bodies eg legal services, medical services, accountancy firms, etc.

Formation: Refers to companies and businesses registered with RCB and other professional bodies during the reference year.

Cessation: Refers to companies and businesses which have ceased operation during the reference year. Cessation status includes ceased operations, struck off, liquidated, dissolved and under receivership.

8.1 FORMATION OF COMPANIES BY INDUSTRY

Industry	Number							
	1991	1996	1997	1998	1999	2000	2001	
Total	6,654	9,473	8,918	6,592	8,018	11,032	8,511	
Agriculture, Fishing, Mining & Quarrying	40	25	44	23	21	26	37	
Manufacturing	1,056	1,062	1,067	846	809	821	748	
Construction	360	651	680	612	629	667	547	
Commerce	2,796	3,557	3,099	2,241	2,663	3,027	2,717	
Transport & Communications	537	589	559	387	493	1,096	559	
Financial & Business Services	1,571	3,151	3,035	2,117	2,976	4,707	3,122	
Others	294	438	434	366	427	688	781	

Source : Registry of Companies and Businesses

8.2 CESSATION OF COMPANIES BY INDUSTRY

									Number
Industry	1991	1996	1997	1998	1999	2000	2001		
Total	1,921	3,062	3,457	4,542	5,715	5,303	5,593		
Agriculture, Fishing, Mining & Quarrying	20	24	27	19	16	22	30		
Manufacturing	256	436	435	516	500	518	516		
Construction	123	204	203	280	353	349	349		
Commerce	784	1,316	1,506	2,051	2,590	2,260	2,262		
Transport & Communications	175	234	252	342	372	397	439		
Financial & Business Services	517	783	936	1,182	1,690	1,605	1,841		
Others	46	65	98	152	194	152	156		

Source : Registry of Companies and Businesses

8.3 FORMATION OF BUSINESSES BY INDUSTRY

	Number						
Industry	1991	1996	1997	1998	1999	2000	2001
Total	19,349	23,495	23,412	23,476	26,586	25,425	24,691
Agriculture, Fishing, Mining & Quarrying	71	103	95	106	88	105	142
Manufacturing	1,693	1,686	1,547	1,539	1,697	1,991	1,758
Construction	2,664	3,466	3,266	2,846	3,158	2,847	2,283
Commerce	8,699	9,442	9,356	9,654	10,650	9,753	10,069
Transport & Communications	1,056	1,313	1,289	1,269	1,664	1,683	1,385
Financial & Business Services	3,510	4,965	5,276	5,202	6,086	6,287	5,863
Others	1,656	2,520	2,583	2,860	3,243	2,759	3,191

Source : Singapore Department of Statistics
Registry of Companies and Businesses

8.4 CESSATION OF BUSINESSES BY INDUSTRY

								Number
Industry	1991	1996	1997	1998	1999	2000	2001	
Total	14,440	19,978	19,532	21,558	22,332	24,208	22,521	
Agriculture, Fishing, Mining & Quarrying	114	88	96	94	93	96	112	
Manufacturing	1,582	1,940	1,779	1,868	1,807	1,768	1,652	
Construction	1,611	2,365	2,631	2,911	3,126	3,228	3,047	
Commerce	6,985	9,365	8,817	9,516	9,490	10,293	9,126	
Transport & Communications	763	1,045	1,009	1,132	1,271	1,329	1,318	
Financial & Business Services	2,093	3,302	3,364	3,972	4,243	5,031	4,982	
Others	1,292	1,873	1,836	2,065	2,302	2,463	2,284	

Source : Singapore Department of Statistics
Registry of Companies and Businesses

9 AGRICULTURE, LIVESTOCK AND FISHERIES

General

The agricultural sector of Singapore is engaged mainly in the production of eggs, fish and vegetables for local consumption and orchids and ornamental fish for exports. About one per cent of Singapore's land area is used for agricultural purposes.

Land for farming has declined over the years. In order to achieve a significant measure of local production of fresh food supply, the government has initiated the development of agrotechnology parks to house large-scale intensive farms using such technology. Six agrotechnology parks covering a total land area of 1,465 hectares have been successfully developed.

Horticulture

The main crops cultivated are vegetables and orchids. Vegetable cultivation is highly intensive, producing mainly leafy vegetables like bayam, cai xin, kai lan, bai cai and xiao bai cai. Bean sprouts are also produced.

A number of farms and nurseries grow orchids, ornamental and foliage plants for export and domestic sale. Singapore is renowned for her orchid cut flowers, which are exported to many countries. The orchid and other horticultural enterprises are supported by plant tissue laboratories which produce several hundred thousands of plantlets.

Poultry and Livestock

Hen egg production is an important farming activity in Singapore. The five local

layer farms meet about 30 percent of eggs consumed locally.

Pigs are slaughtered at the abattoir under close supervision of the Agri-food and Veterinary Authority.

Fisheries

Local fish production comprises mainly catches from the sea with relatively small quantities from aquaculture fish farms. Singapore also imports, exports and tranships fish caught by foreign vessels.

The Jurong Fishing Port (JFP) plays an important role as a major fish landing and distribution point in Singapore. The Port handles about 80,000 tonnes of fish per year, which is the bulk of fresh fish landed by foreign vessels as well as those imported by air and road. The Senoko Fishing Port began its operations in September 1997. It serves as a homebase for local fishing vessels. The port handles locally-produced and imported fish, totalling about 20,000 tonnes of fish per year. There are 99 seafood processing establishments licensed to manufacture fishery products in Singapore. Ten processing establishments and four coldstores are approved to export seafood products to the EU countries.

There are 89 licensed marine farms covering about 57 hectares of coastal waters, and deep sea, culturing high-value fish like groupers and seabass for the live fish market and supermarkets.

9.1 PRODUCTION OF PRINCIPAL CROPS

	1991	1996	1997	1998	1999	2000	2001
Vegetables (Tonnes)	4,597	10,870	16,281	17,291	18,928	19,293	17,690
Orchid Flowers (Million Stalks)	na	29	16	17	22	22	29
Plants ¹ (Million Plants)	na	65	66	55	50	53	48

Source : Agri-food & Veterinary Authority

¹ Include potted plants, foliages, ornamental plants, aquatic plants and tissue-cultured plantlets.

9.2 LIVESTOCK SLAUGHTERED

	1991	1996	1997	1998	1999	2000	Number 2001
Pigs	1,231,648	1,252,516	1,257,041	1,256,203	465,004	317,995	346,652
Sheep	26,783	9,077	7,905	6,581	3,333	1,561	-
Goats	385	48	56	80	11	4	-
Oxen	1,288	200	281	170	12	123	-

Source : Agri-food & Veterinary Authority

9.3 FISH SUPPLY AND AUCTION

	1991	1996	1997	1998	1999	2000	Tonnes 2001
Fish Supply							
Local Production ¹	11,022	13,129	13,049	11,516	10,526	10,483	8,462
Imports	171,551	156,077	150,257	119,810	135,408	132,032	115,464
Exports	133,809	116,396	102,427	104,549	93,419	96,425	76,270
Fish Auction	106,537	91,460	87,139	87,015	87,305	82,750	75,603

Source : Agri-food & Veterinary Authority

International Enterprise Singapore Board

Note : Exclude dried, salted and fish in brine.

¹ Data include aquaculture production.

MANUFACTURING

working establishments) is restricted to the results withdrawn for their personal use. For unpaid (family) workers, it refers to establishments.

To investigate changes in the structure of the manufacturing sector, the Census of Industrial Production (CIP) is conducted annually by the Research and Statistics Unit, Economic Development Board. The main purpose of the CIP is to provide a study of the structure and trends of the manufacturing sector.

The census is primarily conducted by mail, using two standard questionnaires. The reference period is the calendar year. Those establishments whose financial year do not coincide with the calendar year are asked to provide data for the calendar year. The census is conducted annually by the Research and Statistics Unit, Economic Development Board. The main purpose of the CIP is to provide a study of the structure and trends of the manufacturing sector.

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The index of industrial production was based on 1992=100, using the value added weighting pattern obtained from the 1998 Census of Industrial Production data. The weighting pattern reflects the relative importance of the industry divisions and changing structure within the manufacturing sector. The Laspeyres' formula is used for the compilation of the index, with 1992 as the base year.

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The census is primarily conducted by mail, using two standard questionnaires. The reference period is the calendar year. Those establishments whose financial year do not coincide with the calendar year are asked to provide data for the calendar year. The census is conducted annually by the Research and Statistics Unit, Economic Development Board. The main purpose of the CIP is to provide a study of the structure and trends of the manufacturing sector.

Census of Manufacturing Activities

A census of manufacturing establishments employing ten or more workers is conducted annually by the Research and Statistics Unit, Economic Development Board. The results provide comprehensive data for the study of the structure and trends of the manufacturing sector.

The activities covered in the census include manufacturing, industrial servicing and granite quarrying. They are classified according to the Singapore Standard Industrial Classification 2000.

The census is primarily conducted by mail, using two standard questionnaires. The reference period is the calendar year, except for those establishments whose financial years do not coincide with the calendar year.

Definitions

Establishments: A manufacturing establishment is defined as a manufacturing unit engaged in one manufacturing activity and generally operating at one location.

Workers: They refer to all persons engaged in the industrial activity of the establishment, that is, all employees, the self-employed and their relatives. Data generally refer to employment as at 30 June, except where establishments commence operation after June.

Remuneration: It refers to the amount expended for the whole year. For employees, total remuneration comprises salaries (including bonuses), contributions to the Central Provident Fund and pensions paid by employers, and other benefits provided. For

working proprietors, it refers to the amount withdrawn for their personal use. For unpaid family workers, it refers to allowances.

Manufacturing Output: The manufacturing output of industries refers to the total value of all commodities produced (including by-products) and industrial services rendered during the year.

Total Output : Total output includes manufacturing output and other operating income.

Materials Used: Materials used cover raw or basic materials, chemicals and packing materials consumed in the production. They refer to the actual consumption during the year.

Value Added: It refers to gross output less materials, utilities, fuel, transportation charges, work given out and other operating costs.

Index of Industrial Production

The index of industrial production covers all manufacturing activities classified under Section D of the Singapore Standard Industrial Classification 1996. Rubber processing, granite quarrying and production undertaken by government departments and statutory boards are not covered by the index. The indices published are at the 2-digit industry division level and the total manufacturing level.

The index of industrial production was rebased to 1999=100, using the value added weighting pattern obtained from the 1998 Census of Industrial Production data. The weighting pattern reflects the relative importance of the industry divisions and changing structure within the manufacturing sector. The Laspeyres' formula is used for the compilation of the index, with 1999 as the base year.

10 MANUFACTURING (cont'd)

Indices of Business and Labour Costs

The Unit Business Cost Index (UBCI) is compiled by the Singapore Department of Statistics. It measures the relative cost of producing one unit of real output with respect to the base year. The main components for business cost are labour cost, services cost and government rates and fees. The weighting pattern for the components is derived from the input-output tables. As a fixed-weight index, the UBCI takes the reference year of input-output tables as the base year. The Laspeyres' formula is used for the compilation of the index.

Unit labour cost is defined as the total labour cost per unit of real output. Total labour cost comprises wages and salaries, benefits, CPF contributions by employers, foreign workers' levy and skill development levy.

Investment Commitments

Investment commitments refer to investment projects in terms of gross fixed assets which companies commit to invest in Singapore. Projects are only recorded as

commitments if their potential for establishment is favourable and the company has made a firm undertaking to implement the project.

Pioneer Manufacturing Establishments

These are establishments, which had been granted approval under the Pioneer Industries Programme of the Economic Expansion Incentives Act. The principal statistics of these establishments were obtained from the Census of Manufacturing Activities.

Other References

More detailed statistics on the manufacturing sector are available from the "Report on the Census of Industrial Production"/"Report on the Census of Manufacturing Activities" with effect from 2000. This report is published annually by the Research and Statistics Unit, Economic Development Board.

10.1 PRINCIPAL MANUFACTURING STATISTICS

	Unit	1991	1996	1997	1998	1999	2000	2001
Establishments	No	3,785	4,068	4,108	4,004	3,928	4,044	4,074
Workers	No	358,274	368,119	366,696	352,289	338,885	344,610	341,081
Materials	\$m	46,378	76,026	79,603	74,427	80,625	93,607	76,419
Manufacturing Output	\$m	74,575	119,869	126,531	121,433	133,577	158,746	130,495
Total Output	\$m	76,132	122,579	129,484	124,658	136,937	163,721	134,619
Value Added	\$m	17,782	27,368	29,328	28,106	30,249	38,951	32,105
Remuneration	\$m	7,656	11,253	11,926	11,768	11,219	12,453	12,420
Capital Expenditure	\$m	4,035	8,088	10,428	6,940	7,784	11,243	na
Direct Exports	\$m	45,913	72,964	76,450	75,530	85,360	93,861	75,946

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Data exclude rubber processing and granite quarrying.

10.2 SELECTED AVERAGES AND RATIOS IN THE MANUFACTURING SECTOR

	Unit	1991	1996	1997	1998	1999	2000	2001
Manufacturing Output Per Worker	\$'000	208.2	325.6	345.1	344.7	394.2	460.7	382.6
Value Added Per Worker	\$'000	49.6	74.3	80.0	79.8	89.3	113.0	94.1
Value Added to Total Output	%	23.4	22.3	22.6	22.5	22.1	23.8	23.8
Remuneration to Value Added	%	43.1	41.1	40.7	41.9	37.1	32.0	38.7
Remuneration to Total Output	%	10.1	9.2	9.2	9.4	8.2	7.6	9.2
Direct Exports to Total Sales	%	61.5	60.7	60.8	62.0	63.5	60.0	59.1
Direct Exports to Manufacturing Output	%	61.6	60.9	60.4	62.2	63.9	59.1	58.2

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Data exclude rubber processing and granite quarrying.

10.3

MANUFACTURING ESTABLISHMENTS BY INDUSTRY

Code	Industry	Number						
		1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	284	313	323	320	321	340	345
17	Textiles & Textile Manufactures	64	53	45	42	42	41	41
18	Wearing Apparel except Footwear	351	193	162	145	141	142	142
19	Leather, Leather Products & Footwear	48	27	24	23	21	20	20
20	Wood & Wood Products	78	57	52	49	46	49	50
21	Paper & Paper Products	96	104	98	91	89	85	85
22	Printing & Reproduction of Recorded Media	345	415	400	397	329	329	330
23	Refined Petroleum Products	14	18	19	18	18	18	18
24	Chemicals & Chemical Products	171	195	211	210	231	236	236
25	Rubber & Plastic Products	320	355	349	339	321	323	325
26	Non-metallic Mineral Products	80	95	100	91	94	98	99
27	Basic Metals	30	25	26	22	20	17	17
28	Fabricated Metal Products except Machinery & Apparatus	488	605	633	631	629	668	670
29	Machinery & Equipment	429	566	602	597	607	621	625
30	Electrical Machinery & Apparatus	128	152	162	153	145	149	150
31	Electronic Products & Components	241	237	236	223	205	197	200
32	Medical, Precision & Optical Instruments, Watches & Clocks	63	62	67	63	64	68	69
33	Transport Equipment	241	307	316	308	317	341	345
34	Other Manufacturing Industries	308	279	273	270	274	285	290
35	Recycling of Metal/Non-metal Waste & Scrap	6	10	10	12	14	17	17
Total Manufacturing		3,785	4,068	4,108	4,004	3,928	4,044	4,074

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.4 MANUFACTURING OUTPUT BY INDUSTRY

Million Dollars

Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	2,910.4	3,650.3	3,798.7	3,474.4	3,379.5	3,372.1	3,295.1
17	Textiles & Textile Manufactures	401.7	237.6	255.5	254.2	234.9	281.6	267.5
18	Wearing Apparel except Footwear	1,739.1	801.6	773.4	787.3	806.6	987.3	880.6
19	Leather, Leather Products & Footwear	115.2	112.1	152.7	131.1	163.4	196.0	189.0
20	Wood & Wood Products	299.9	270.2	290.6	300.4	249.4	279.0	270.3
21	Paper & Paper Products	870.7	1,021.9	954.7	819.9	827.2	820.0	765.0
22	Printing & Reproduction of Recorded Media	1,945.2	2,755.3	2,799.8	2,687.9	2,663.8	2,982.3	2,665.6
23	Refined Petroleum Products	11,226.5	13,746.5	14,637.5	12,751.9	13,594.7	19,610.9	17,126.2
24	Chemicals & Chemical Products	5,451.4	7,163.1	9,339.0	10,156.7	13,869.9	15,943.8	15,664.8
25	Rubber & Plastic Products	1,770.6	2,601.0	2,654.8	2,428.4	2,655.1	3,318.4	2,586.3
26	Non-metallic Mineral Products	1,391.1	2,372.0	2,628.3	2,114.0	1,685.6	1,656.3	1,298.7
27	Basic Metals	714.6	636.9	646.2	531.3	546.3	489.4	458.2
28	Fabricated Metal Products except Machinery & Apparatus	3,898.9	6,297.8	6,496.0	6,368.5	6,455.7	7,268.4	5,886.7
29	Machinery & Equipment	4,356.7	6,452.3	6,898.3	6,227.0	6,098.5	7,456.9	6,043.0
30	Electrical Machinery & Apparatus	2,113.0	3,110.9	3,082.6	2,524.8	2,387.0	2,556.6	2,171.6
31	Electronic Products & Components	28,827.2	60,912.7	62,903.6	60,846.0	68,718.5	81,802.7	59,846.9
32	Medical, Precision & Optical Instruments, Watches & Clocks	914.1	1,547.1	1,693.3	2,109.1	2,460.4	2,763.7	2,770.1
33	Transport Equipment	4,050.4	4,828.0	5,166.4	5,813.5	5,759.4	5,792.7	7,154.0
34	Other Manufacturing Industries	1,558.1	1,315.0	1,314.8	1,065.3	957.2	1,027.8	1,028.8
35	Recycling of Metal/Non-metal Waste & Scrap	20.1	36.7	44.6	41.4	64.2	139.8	126.9
Total Manufacturing		74,575.0	119,869.0	126,530.9	121,433.1	133,577.3	158,745.7	130,495.4

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.5 TOTAL OUTPUT BY INDUSTRY

Million Dollars

Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	3,021.4	3,834.6	3,976.3	3,696.1	3,668.0	3,602.0	3,515.3
17	Textiles & Textile Manufactures	410.7	252.0	265.5	265.0	245.6	289.4	280.0
18	Wearing Apparel except Footwear	1,800.7	849.1	833.0	835.8	858.3	1,060.0	939.0
19	Leather, Leather Products & Footwear	119.8	116.1	158.1	137.7	168.3	206.7	198.2
20	Wood & Wood Products	317.3	279.3	302.5	315.6	261.0	290.2	257.7
21	Paper & Paper Products	898.5	1,050.6	994.0	867.8	861.6	859.0	802.3
22	Printing & Reproduction of Recorded Media	1,997.0	2,804.6	2,856.1	2,745.7	2,714.2	3,043.8	2,743.1
23	Refined Petroleum Products	11,383.8	13,920.1	14,881.4	13,208.5	14,097.3	20,089.5	17,475.8
24	Chemicals & Chemical Products	5,637.4	7,489.1	9,707.0	10,508.2	14,370.2	16,406.2	16,097.8
25	Rubber & Plastic Products	1,815.9	2,697.9	2,752.9	2,524.5	2,762.8	3,433.8	2,684.6
26	Non-metallic Mineral Products	1,419.4	2,426.4	2,710.5	2,164.5	1,708.2	1,684.2	1,311.1
27	Basic Metals	723.6	650.6	668.4	562.0	554.4	501.5	477.3
28	Fabricated Metal Products except Machinery & Apparatus	3,970.1	6,466.8	6,703.0	6,546.5	6,643.3	7,449.4	6,052.6
29	Machinery & Equipment	4,533.9	6,716.0	7,218.5	6,548.9	6,355.7	7,712.6	6,342.8
30	Electrical Machinery & Apparatus	2,232.2	3,262.3	3,277.1	2,731.0	2,577.2	2,808.1	2,331.3
31	Electronic Products & Components	29,097.2	61,411.9	63,379.6	61,443.6	69,362.3	83,950.7	61,191.6
32	Medical, Precision & Optical Instruments, Watches & Clocks	986.0	1,650.2	1,738.6	2,163.9	2,517.4	2,822.6	2,834.2
33	Transport Equipment	4,158.5	5,247.0	5,561.1	6,134.0	6,093.1	6,190.7	7,775.5
34	Other Manufacturing Industries	1,588.4	1,416.7	1,454.7	1,214.9	1,052.3	1,172.7	1,175.1
35	Recycling of Metal/Non-metal Waste & Scrap	20.1	37.8	45.3	43.4	65.7	147.8	134.2
Total Manufacturing		76,131.9	122,579.1	129,483.6	124,657.6	136,937.0	163,720.8	134,619.4

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.6 VALUE ADDED OF MANUFACTURING ESTABLISHMENTS BY INDUSTRY

		Million Dollars						
Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	760.9	950.5	1,041.8	990.9	1,025.7	992.2	952.6
17	Textiles & Textile Manufactures	99.7	75.7	79.1	74.7	79.2	77.0	63.3
18	Wearing Apparel except Footwear	460.5	199.9	198.6	215.2	230.9	247.0	215.6
19	Leather, Leather Products & Footwear	31.4	36.2	43.5	39.3	39.3	48.9	27.1
20	Wood & Wood Products	69.4	68.6	80.7	86.2	66.3	70.8	65.0
21	Paper & Paper Products	315.0	379.8	372.5	356.9	334.7	339.4	336.9
22	Printing & Reproduction of Recorded Media	815.9	1,366.3	1,485.6	1,330.2	1,364.4	1,502.5	1,327.3
23	Refined Petroleum Products	1,288.5	1,479.8	1,576.8	1,116.9	1,146.1	1,747.6	1,256.5
24	Chemicals & Chemical Products	2,125.3	2,966.1	3,145.6	3,711.8	3,753.4	5,516.1	5,456.5
25	Rubber & Plastic Products	564.3	887.9	902.5	858.7	931.6	1,110.1	872.1
26	Non-metallic Mineral Products	368.0	609.5	645.4	562.6	472.7	424.9	304.5
27	Basic Metals	189.8	146.1	147.0	142.1	148.7	112.5	96.3
28	Fabricated Metal Products except Machinery & Apparatus	1,119.3	1,836.8	1,928.6	1,877.6	1,938.9	2,083.6	1,604.8
29	Machinery & Equipment	1,356.9	1,943.1	2,085.2	2,077.4	2,000.7	2,678.0	2,032.4
30	Electrical Machinery & Apparatus	648.3	896.1	941.9	802.1	776.1	814.9	692.8
31	Electronic Products & Components	5,400.7	10,632.7	11,583.2	10,484.4	12,320.6	17,228.3	12,213.1
32	Medical, Precision & Optical Instruments, Watches & Clocks	385.5	639.1	636.2	882.4	1,066.8	1,265.1	1,281.7
33	Transport Equipment	1,443.8	1,913.5	2,033.9	2,146.5	2,240.7	2,339.2	2,954.4
34	Other Manufacturing Industries	334.6	329.8	387.0	334.3	293.2	317.4	319.9
35	Recycling of Metal/Non-metal Waste & Scrap	4.1	10.2	13.0	15.8	19.2	35.5	32.2
Total Manufacturing		17,781.9	27,367.6	29,328.1	28,105.8	30,249.2	38,951.0	32,105.1

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.7 WORKERS IN MANUFACTURING BY INDUSTRY

								Number
Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	14,206	14,215	14,698	14,913	15,216	15,295	16,122
17	Textiles & Textile Manufactures	3,343	1,748	1,653	1,590	1,533	1,556	1,477
18	Wearing Apparel except Footwear	25,915	10,309	8,144	7,756	8,198	8,519	8,089
19	Leather, Leather Products & Footwear	1,426	998	1,164	1,049	905	945	1,051
20	Wood & Wood Products	2,236	1,450	1,720	1,682	1,567	1,569	1,533
21	Paper & Paper Products	4,944	5,474	5,213	4,738	4,722	4,544	4,515
22	Printing & Reproduction of Recorded Media	16,954	18,932	19,005	19,114	17,174	18,447	18,748
23	Refined Petroleum Products	3,550	3,531	3,444	3,306	3,152	2,855	2,886
24	Chemicals & Chemical Products	10,413	13,621	15,247	15,163	15,751	16,933	17,478
25	Rubber & Plastic Products	17,204	21,609	21,329	20,064	20,133	21,633	20,067
26	Non-metallic Mineral Products	5,444	6,505	7,002	6,583	6,055	6,195	5,587
27	Basic Metals	2,495	2,105	1,913	1,831	1,541	1,460	1,452
28	Fabricated Metal Products except Machinery & Apparatus	28,337	34,765	35,696	37,107	38,072	39,189	36,403
29	Machinery & Equipment	29,483	35,154	37,424	37,410	36,363	38,405	38,539
30	Electrical Machinery & Apparatus	16,465	15,652	15,176	12,997	10,976	10,654	10,238
31	Electronic Products & Components	122,839	128,446	123,835	111,590	105,826	102,320	100,652
32	Medical, Precision & Optical Instruments, Watches & Clocks	9,133	9,291	9,104	8,993	8,558	9,649	10,017
33	Transport Equipment	30,091	34,892	34,854	37,118	35,074	35,844	37,385
34	Other Manufacturing Industries	13,686	9,247	9,883	9,046	7,724	8,015	8,352
35	Recycling of Metal/Non-metal Waste & Scrap	110	175	192	239	345	583	490
Total Manufacturing		358,274	368,119	366,696	352,289	338,885	344,610	341,081

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.8 REMUNERATION IN MANUFACTURING BY INDUSTRY

Million Dollars

Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	332.5	435.0	460.9	460.7	433.6	466.2	468.9
17	Textiles & Textile Manufactures	60.4	43.8	41.8	41.2	38.5	43.3	40.0
18	Wearing Apparel except Footwear	322.0	176.5	151.6	145.2	151.1	162.2	152.7
19	Leather, Leather Products & Footwear	21.5	24.8	28.3	25.2	23.0	24.1	25.1
20	Wood & Wood Products	42.3	35.1	42.5	45.1	39.6	44.1	45.6
21	Paper & Paper Products	115.4	171.7	171.9	152.0	149.2	149.2	148.1
22	Printing & Reproduction of Recorded Media	464.6	671.1	716.9	707.2	613.6	710.1	720.1
23	Refined Petroleum Products	237.3	301.8	303.7	321.9	293.1	293.2	295.9
24	Chemicals & Chemical Products	396.2	676.2	857.6	924.0	983.4	1,104.1	1,173.1
25	Rubber & Plastic Products	308.0	539.4	554.5	527.9	524.1	597.5	549.1
26	Non-metallic Mineral Products	134.4	210.6	229.3	216.8	180.8	191.4	169.6
27	Basic Metals	73.3	87.0	85.5	74.1	65.7	68.6	67.3
28	Fabricated Metal Products except Machinery & Apparatus	604.3	1,006.1	1,078.6	1,059.6	1,035.0	1,135.2	1,076.1
29	Machinery & Equipment	732.9	1,184.0	1,313.3	1,258.0	1,205.9	1,344.3	1,407.5
30	Electrical Machinery & Apparatus	331.8	484.8	483.2	441.6	368.9	387.9	367.6
31	Electronic Products & Components	2,313.1	3,522.2	3,640.8	3,587.7	3,386.0	3,870.0	3,676.9
32	Medical, Precision & Optical Instruments, Watches & Clocks	192.6	288.8	291.2	302.6	297.9	336.7	367.1
33	Transport Equipment	738.4	1,164.9	1,222.0	1,251.8	1,225.8	1,288.2	1,432.4
34	Other Manufacturing Industries	232.5	223.9	246.1	218.4	194.0	217.2	218.5
35	Recycling of Metal/Non-metal Waste & Scrap	2.2	5.4	6.3	7.1	10.3	19.6	18.8
Total Manufacturing		7,655.9	11,253.2	11,926.0	11,768.1	11,219.3	12,453.1	12,420.3

Source : Economic Development Board

Notes : Figures refer to establishments engaging 10 or more workers.

Rubber processing and granite quarrying are excluded.

With effect from 1999, data are classified according to Singapore Standard Industrial Classification (SSIC) 2000.

Prior to 1999, data are classified according to SSIC 1996.

10.9 INDEX OF INDUSTRIAL PRODUCTION

(1999=100)

Code	Industry	1991	1996	1997	1998	1999	2000	2001
15/16	Food, Beverage & Tobacco	103.8	120.5	113.8	101.0	100.0	101.7	106.1
17	Textiles & Textile Manufactures	234.4	98.9	106.5	102.6	100.0	117.2	100.3
18	Wearing Apparel except Footwear	213.0	90.5	86.8	95.9	100.0	113.8	95.8
19	Leather, Leather Products & Footwear	130.7	89.0	81.3	82.1	100.0	116.0	108.4
20	Wood & Wood Products	134.6	115.7	105.6	106.1	100.0	106.5	92.3
21	Paper & Paper Products	122.4	119.1	110.7	95.8	100.0	98.7	92.2
22	Publishing, Printing & Reproduction of Recorded Media	75.0	97.6	100.7	90.8	100.0	113.9	98.9
23	Refined Petroleum Products	87.6	106.6	110.5	109.3	100.0	91.0	92.8
24	Chemicals & Chemical Products	44.8	49.9	62.8	78.7	100.0	106.8	114.8
25	Rubber & Plastic Products	96.0	112.6	106.7	89.1	100.0	123.3	92.6
26	Non-metallic Mineral Products	79.6	131.4	127.1	111.4	100.0	100.2	75.0
27	Basic Metals	101.3	105.0	110.4	91.9	100.0	106.1	107.2
28	Fabricated Metal Products except Machinery & Apparatus	81.2	112.5	109.0	103.7	100.0	108.8	88.5
29	Machinery & Equipment	80.2	107.6	114.4	104.5	100.0	127.0	106.2
30	Electrical Machinery & Apparatus	95.9	113.8	115.5	100.6	100.0	109.6	96.0
31	Electronic Products & Components	39.0	80.5	83.1	80.5	100.0	125.2	98.5
32	Instrumentation Equipment	42.1	69.4	76.9	89.4	100.0	111.6	115.8
33	Transport Equipment	83.5	85.0	91.5	103.5	100.0	100.9	124.1
34	Other Manufacturing Industries	209.6	137.9	132.4	105.0	100.0	97.8	96.0
	Total Manufacturing ¹	58.0	84.3	88.1	87.8	100.0	115.3	102.0

Source : Economic Development Board

Notes : The industries are classified according to the Singapore Standard Industrial Classification (SSIC) 1996.

The current index series have been rebased with base year 1999=100. The rebased indices reflect the relative importance of the industry divisions and changing structure within the total manufacturing sector.

¹ Exclude rubber processing.

10.10 INDICES OF UNIT BUSINESS COST AND UNIT LABOUR COST (1993=100)

	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Unit Business Cost of Manufacturing								
Total	100.0	97.6	101.6	101.5	100.9	90.6	91.2	96.5
Unit Labour Cost	46.4	96.3	97.8	98.6	97.4	81.0	77.8	87.3
Services Cost	51.6	99.5	104.4	103.6	104.3	99.7	103.4	104.9
Government Rates & Fees	2.0	94.7	117.6	117.0	96.4	80.3	88.4	90.6
Unit Labour Cost of Overall Economy		97.6	107.7	108.4	112.7	101.0	100.8	108.2

1 The weights are based on the 1993 input structure and are used in the computation of the indices from 1993 onwards.

10.11 PRINCIPAL STATISTICS OF PIONEER MANUFACTURING ESTABLISHMENTS (End of Period)

	Unit	1990	1995	1996	1997	1998	1999	2000
Establishments	No	415	405	397	391	361	360	362
Workers	No	166,078	171,206	170,780	165,431	151,901	142,321	139,389
Materials	\$m	28,230	50,880	54,748	56,731	52,912	56,498	67,088
Manufacturing Output	\$m	43,435	76,345	82,418	86,211	82,439	90,835	113,656
Total Output	\$m	44,028	77,255	83,356	87,195	83,825	92,292	116,613
Value Added	\$m	9,874	16,357	17,118	18,176	17,005	18,073	26,783
Remuneration	\$m	3,308	5,013	5,352	5,539	5,472	5,174	5,841
Gross Fixed Assets	\$m	20,308	32,596	36,115	41,267	43,032	45,736	54,199
Direct Exports	\$m	33,828	53,087	56,293	59,228	59,211	65,755	75,765
Value Added Per Worker	\$ '000	59	96	100	110	112	127	192

Source : Economic Development Board

10.12

PRINCIPAL STATISTICS OF PIONEER MANUFACTURING ESTABLISHMENTS BY INDUSTRY, DECEMBER 2000

Industry	Establish- ments	Workers	Materials	Manufacturing Output	Total Output
	Number		Million Dollars		
Total	362	139,389	67,088	113,656	116,613
Food & Beverages	7	751	207	340	412
Paper Products & Printing	8	1,836	148	364	400
Petroleum, Chemicals & Chemical Products	71	10,268	16,821	26,621	27,237
Rubber & Plastic Products	15	2,551	152	379	391
Non-metallic Mineral Products	8	1,565	173	562	566
Fabricated Metal Products	32	6,457	1,005	1,614	1,641
Machinery & Equipment	65	13,703	1,781	3,591	3,708
Electrical Machinery & Apparatus	15	4,417	500	1,157	1,291
Electronic Products & Components	80	82,081	44,331	74,211	76,079
Instrumentation Equipment	20	7,071	1,026	2,470	2,505
Transport Equipment	24	6,374	615	1,756	1,774
Miscellaneous	17	2,315	329	591	609

Industry	Value Added	Remun- eration	Gross Fixed Assets	Direct Exports	Value Added Per Worker
	Million Dollars				\$ ' 000
Total	26,783	5,841	54,199	75,765	192
Food & Beverages	97	30	349	212	129
Paper Products & Printing	192	62	479	242	105
Petroleum, Chemicals & Chemical Products	5,815	841	19,181	11,801	566
Rubber & Plastic Products	175	78	488	228	69
Non-metallic Mineral Products	232	56	835	297	148
Fabricated Metal Products	421	206	813	922	65
Machinery & Equipment	1,263	524	2,382	2,444	92
Electrical Machinery & Apparatus	485	175	1,168	862	110
Electronic Products & Components	16,006	3,205	25,619	54,701	195
Instrumentation Equipment	1,146	260	1,068	2,278	162
Transport Equipment	798	320	1,179	1,507	125
Miscellaneous	153	82	638	271	66

Source : Economic Development Board

10.13 NET INVESTMENT COMMITMENTS IN MANUFACTURING¹ BY INDUSTRY

Million Dollars							
Industry	1991	1996	1997	1998	1999	2000	2001
Total	2,934.0	8,085.1	8,488.4	7,829.5	8,037.4	9,208.9	9,171.7
Food, Beverage & Tobacco	31.8	201.4	142.5	130.8	253.5	0.8	23.3
Textiles	12.4	2.2	-	10.2	-	-	-
Wearing Apparel except Footwear	1.9	10.1	0.4	-	-	-	-
Leather & Footwear	2.6	-	-	-	-	-	6.2
Wood & Wood Products	0.5	-	-	19.4	-	7.3	-
Paper & Paper Products	34.2	2.8	3.0	35.7	2.5	18.3	2.1
Printing ²	75.6	319.7	151.2	61.0	75.6	115.3	192.3
Petroleum & Petroleum Products	99.5	108.3	581.3	26.5	6.0	97.7	633.9
Chemical & Chemical Products	573.4	2,754.8	2,239.6	2,913.7	2,895.5	2,799.4	1,969.1
Rubber & Plastic Products	114.9	102.9	110.2	164.2	84.6	71.4	234.8
Non-metallic Mineral Products	59.3	84.5	85.7	32.2	39.6	77.0	-
Basic Metals	1.3	9.5	112.0	10.1	14.4	16.0	25.9
Fabricated Metal Products	152.7	350.5	366.6	347.3	299.6	388.6	213.9
Machinery & Equipment	294.6	306.3	323.7	445.5	486.8	435.0	500.8
Electrical Machinery & Apparatus	47.5	5.3	124.4	165.6	112.7	87.7	2.9
Electronic Products & Components	1,244.5	3,477.6	3,817.8	3,047.9	3,290.7	4,451.2	4,612.7
Instrumentation Equipment	34.0	82.6	70.1	44.2	116.7	103.5	264.8
Transport Equipment	124.3	250.5	359.9	357.4	317.3	443.7	398.3
Furniture & Other Manufacturing	29.1	16.2	-	17.7	41.9	95.9	90.7

Source : Economic Development Board

Note : Net investment commitments refer to gross commitments less projects withdrawn or uncertain as at 31 December 2001.

The industries are classified according to the Singapore Standard Industrial Classification 2000 with effect from 2001.

1 Including servicing, engineering and R&D.

2 Prior to 2001, data included publishing industry.

10.14 NET INVESTMENT COMMITMENTS IN MANUFACTURING BY COUNTRY OF ORIGIN

Country	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	2,934.0	8,085.1	8,488.4	7,829.5	8,037.4	9,208.9	9,171.7
Local	472.9	2,293.3	2,524.6	2,615.9	1,780.3	1,973.6	2,562.5
Foreign	2,461.1	5,791.8	5,963.8	5,213.6	6,257.1	7,235.3	6,609.2
United States	969.2	2,336.0	2,422.6	2,293.0	3,586.6	3,692.1	3,191.8
Japan	713.2	1,962.0	2,032.0	1,822.2	1,179.9	1,513.0	1,339.9
Europe	684.2	1,389.1	1,423.7	1,040.0	1,138.8	1,721.7	1,913.0
European Union ¹ (EU)	624.0	1,320.5	1,398.4	880.8	1,099.8	1,663.0	1,900.2
United Kingdom	186.5	397.6	445.1	8.5	91.7	319.8	102.3
Netherlands	216.2	517.8	384.7	44.0	187.0	379.7	311.1
Germany	60.2	246.4	121.3	522.7	630.7	375.3	356.5
France	75.2	59.1	271.5	138.4	96.1	397.8	509.6
Italy	70.1	53.9	175.0	89.9	84.8	180.4	486.5
Sweden	1.2	-	-	24.3	8.4	3.9	0.5
Other EU Countries	14.6	45.7	0.8	53.0	1.1	6.0	133.6
Switzerland	12.6	60.1	25.2	153.8	26.4	51.3	13.0
Other European Countries	47.6	8.5	-	5.3	12.6	7.4	-
Others	94.5	104.8	85.5	58.4	351.8	308.5	164.4

Source : Economic Development Board

¹ The European Union (EU) comprises Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

CONSTRUCTION AND REAL ESTATE

under is a list of the projects selected by the Commission for the date of contract awarded will be taken as the date of building commencement.

Building Completion: Refers to a building completed when the Temporary Occupation Permit (TOP) or Certificate of Statutory Completion (CSC) in respect of the building is issued by the Commission of Building Control. In the case of a public sector project, it is completed when the certificate of completion is issued by the architect or the project's professional advisers. In the case of a private sector project, it is completed when the certificate of completion is issued by the architect or the project's professional advisers.

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Construction and Real Estate

Building construction refers to erection of new building and addition/alteration to existing building, but excludes erection of temporary structures, illegal building works or minor works which do not require planning approval. Data on new buildings given written permission and building plan approval and submitted notice of commencement and issued TOPs are compiled from the administrative records of the Development Control Division, Urban Redevelopment Authority (URA) and Building Plan and Management Division and Building Engineering Division of Building and Construction Authority (BCA). Data on notices of tender invitation and completion of public buildings are collected through surveys conducted by the Research Section, URA. Statistics on contracts awarded and progress payments certified are collected through surveys conducted by the Economics & Resources Department of BCA.

Definitions

Written Permission: Refers to the approval granted by the Minister for National Development or the Competent Authority to develop any land subject to conditions in accordance with the development rules in force.

Building Plan Approval: Refers to the approval granted by the Commissioner of Building Control in respect of building plans and specifications submitted in accordance with the prescribed building regulations in force.

Building Commencement: Refers to the construction of a building project which is deemed to have commenced when a permit to commence building works in respect of that building is issued by the Commissioner of Building Control. In the case of a public sector project for which such permit from the Commissioner of Building Control is not required, the construction of the project is deemed to have commenced when the first

tender is invited. Where the contractor is selected by pre-qualification or closed tender, the date of contract awarded will be taken as the date of building commencement.

Building Completion: Refers to a building completed when the Temporary Occupation Permit (TOP) or Certificate of Statutory Completion (CSC) in respect of that building is issued by the Commissioner of Building Control. In the case of a public sector project, it is completed when the certificate of completion is issued by the architect or engineer in charge of the project.

Gross Floor Area: Refers to the covered floor areas of a building unless exempted and any uncovered areas of a building designed for commercial uses.

Contracts Awarded: Refers to the full contract given to the main contractor by the architect, engineer or developer/owner even though part or all the works may be further sub-contracted to another contractor.

Progress Payment Certified: Refers to the value of all construction works done and certified for progress payment. Where construction works are carried out by the developer/owner himself and the architect does not certify progress payments, the expenses incurred on the construction work are taken to be the progress payments certified.

Other References

More details of construction and real estate statistics may be obtained from the "Property Market Information: Private Residential Properties", "Property Market Information: Commercial and Industrial Properties" and "Property Market Information: Details of Projects Under Development" published by the Research Section, URA. Details on contracts awarded and progress payments certified may be obtained from the

"FRAMEwork" and "Construction Economics Report" published by the BCA.

Housing

The Housing and Development Board (HDB) was established on 1 February 1960 as the public housing authority of Singapore. HDB's mission is to provide affordable public housing of a high quality. HDB also develops and maintains other facilities, namely commercial and industrial properties, markets and hawker centres and car parks. To help build communities, HDB provides recreational and communal facilities such as neighbourhood parks and children's playground in its housing estates.

In 2001, 23,913 flats were completed, bringing the total number of flats built since HDB's inception in 1960 to 948,401.

The Home Ownership for the People Scheme, introduced in 1964, enable citizens to buy HDB flats. HDB sold 19,987 HDB flats in 2001. To-date 85 per cent of Singaporeans live in HDB flats and 82 per cent of the resident population live in home-ownership flats. HDB offers a number of measures to help low-income families own HDB flats. These are the sale of flats to sitting tenants, sale of 4-room budget flats, buying of 3-room flats for sale at subsidised prices, rent & purchase of 3-room flats, and priority allocation of 4-room or smaller flats to tenants of rental flats. To help the singles own flats, HDB has introduced the Singles Grant for the purchase of resale flats.

To bridge the gap between the standards of the older estates and those of the newer towns, the Estate Renewal Strategy was introduced in September 1995. HDB's

programmes such as the Main Upgrading Programme (MUP), the Interim Upgrading Programme (IUP), the Selective En Bloc Redevelopment Scheme, Sale of Sites and the Project to Improve the Living Conditions of the Elderly are all part of the Estate Renewal Strategy.

At the end of 2001, the number of precincts selected under the MUP was 116, involving about 116,320 units of HDB flats. Under the MUP, improvements are made to the flat, the apartment block and the precinct. At the end of 2001, the upgrading works at 54 precincts had been completed. Under the IUP carried out by the Town Councils to improve the precincts, eight batches comprising 190 precincts had so far been selected. The upgrading works in 119 precincts had been completed as at end 2001.

The Selective En Bloc Redevelopment Scheme was launched in August 1995. Under the scheme, selected old flats that are economically not viable for upgrading are redeveloped into more intensive and better quality housing. As at December 2001, 45 precincts have been announced for redevelopment.

Since 1993, HDB had selected eight batches of 38 blocks of 1-room rental flats comprising 11,360 units for improvement works under the project to improve the living conditions of the elderly.

In October 2001, the Government announced the Rental Flat Upgrading Project. 8,500 flats in 41 HDB rental blocks would be upgraded. This project will enable more tenants of HDB rental flats to benefit from an improved environment earlier. The upgrading works would commence in March 2002 and complete by August 2003.

11.1

AVAILABLE AND VACANT PRIVATE RESIDENTIAL PROPERTIES

(End of Period)

Type of Property	Number of Units					
	1996	1997	1998	1999	2000	2001
All Types						
Available	149,114	161,273	173,573	183,551	193,028	198,354
Vacant	9,262	14,467	15,612	14,710	13,341	16,207
Detached Houses						
Available	10,204	10,138	10,178	10,100	10,004	9,918
Vacant	962	742	822	935	495	670
Semi-Detached Houses						
Available	18,779	19,597	19,803	20,058	20,139	20,301
Vacant	1,020	1,221	991	1,051	704	1,141
Terrace Houses						
Available	32,611	33,496	34,277	34,818	35,884	35,993
Vacant	1,816	1,827	1,628	1,512	1,667	1,968
Apartments						
Available	48,150	49,678	53,356	55,823	56,429	55,286
Vacant	2,676	4,388	5,850	5,546	4,188	4,717
Condominium Units						
Available	39,370	48,364	55,959	62,752	70,572	76,856
Vacant	2,788	6,289	6,321	5,666	6,287	7,711

Source : Urban Redevelopment Authority

Note : Figures exclude hostels, HDB flats, tenement houses, parsonages and Executive Condominiums.

11.2 SUPPLY OF PRIVATE RESIDENTIAL PROPERTIES IN THE PIPELINE BY DEVELOPMENT STATUS (End of Period)

	Number of Units					
	1996	1997	1998	1999	2000	2001
Landed Properties						
Total	17,460	10,556	8,216	7,236	6,744	6,383
Under Construction	6,337	6,465	5,122	3,945	3,105	3,166
Planned						
Written Permission	1,322	2,031	2,151	2,171	2,121	2,325
Provisional Permission	2,767	1,145	882	888	1,030	707
Others ¹	7,034	915	61	232	488	185
Non-Landed Properties						
Total	85,574	76,114	54,726	55,174	53,407	46,242
Under Construction	38,058	40,244	29,138	25,729	24,865	26,237
Planned						
Written Permission	5,087	6,070	6,714	6,078	11,215	11,693
Provisional Permission	12,808	8,342	9,432	8,007	9,112	6,436
Others ¹	29,621	21,458	9,442	15,360	8,215	1,876

Source : Urban Redevelopment Authority

Note : Figures exclude hostels, HDB flats, tenement houses, parsonages and Executive Condominiums.

¹ Planned land sales by the government and developments submitted for approval.

11.3 APPROVAL, CONSTRUCTION COMMENCEMENT AND COMPLETION OF PRIVATE RESIDENTIAL PROPERTIES

	1996	1997	1998	1999	2000	2001
Provisional Permission						
Projects (Number)	1,019	681	208	282	491	298
Gross Floor Area ('000 sq m)	3,218	2,773	1,456	911	2,624	1,578
Written Permission						
Projects (Number)	1,109	888	235	195	411	314
Gross Floor Area ('000 sq m)	2,980	3,093	1,142	1,200	2,117	1,700
Building Plan Approval						
Projects (Number)	1,031	1,078	309	164	310	323
Gross Floor Area ('000 sq m)	2,616	3,112	1,304	1,222	1,337	1,421
Building Commencement						
Projects (Number)	966	806	183	231	344	304
Gross Floor Area ('000 sq m)	2,584	2,954	621	1,022	1,472	1,269
Building Completion						
Projects (Number)	760	997	507	329	294	317
Gross Floor Area ('000 sq m)	1,542	2,687	2,230	1,730	1,714	1,162

Source : Urban Redevelopment Authority

Note : Figures exclude hostels, HDB flats, tenement houses, parsonages and Executive Condominiums.

11.4 AVAILABLE AND VACANT COMMERCIAL AND INDUSTRIAL PROPERTIES

(End of Period)

Thousand sq m nett

	1996	1997	1998	1999	2000	2001
Private Sector						
Office Space						
Available	4,016	4,446	4,700	4,834	5,015	5,043
Vacant	370	538	750	742	588	564
Shop Space						
Available	1,836	1,862	1,921	1,950	1,950	1,929
Vacant	197	181	199	177	156	169
Factory Space						
Available	14,059	15,597	16,868	17,310	17,849	18,512
Vacant	496	1,073	1,685	1,612	1,327	1,579
Warehouse Space						
Available	3,434	4,318	4,721	4,881	4,955	5,267
Vacant	244	379	612	625	590	632
Public Sector						
Office Space						
Available	1,091	1,035	1,033	1,045	1,122	1,207
Vacant	65	76	88	87	107	140
Shop Space						
Available	1,177	1,168	1,182	1,191	1,187	1,180
Vacant	32	33	79	84	90	80
Factory Space						
Available	5,423	5,516	5,707	5,878	6,172	6,126
Vacant	259	369	627	771	949	781
Warehouse Space						
Available	656	210	211	231	259	83
Vacant	43	23	40	79	79	21

Source : Urban Redevelopment Authority

11.5

SUPPLY OF COMMERCIAL AND INDUSTRIAL PROPERTIES IN THE PIPELINE BY DEVELOPMENT STATUS (Private and Public Sectors) (End of Period)

Thousand sq m gross

	1996	1997	1998	1999	2000	2001
Office Space						
Total	2,823	2,656	1,803	1,706	1,355	1,114
Under Construction	1,200	1,141	1,113	972	657	507
Planned						
Written Permission	185	202	129	132	99	131
Provisional Permission	402	293	106	41	196	364
Others ¹	1,036	1,020	455	561	403	112
Shop Space						
Total	1,087	745	438	384	315	315
Under Construction	375	290	198	135	112	144
Planned						
Written Permission	112	92	82	81	68	58
Provisional Permission	115	34	36	9	42	60
Others ¹	485	329	122	159	93	53
Factory Space						
Total	8,375	10,158	6,491	6,972	6,814	5,750
Under Construction	3,781	4,516	3,450	3,163	3,105	3,200
Planned						
Written Permission	477	676	1,206	1,311	896	770
Provisional Permission	1,175	1,222	960	559	680	423
Others ¹	2,942	3,744	875	1,939	2,133	1,357
Warehouse Space						
Total	1,457	1,202	740	590	607	579
Under Construction	899	959	574	434	303	387
Planned						
Written Permission	209	27	40	50	83	65
Provisional Permission	127	167	109	94	78	2
Others ¹	222	49	17	12	143	125

Source : Urban Redevelopment Authority

¹ Planned public developments and land sales by the government and developments submitted for approval.

11.6 APPROVAL, CONSTRUCTION COMMENCEMENT AND COMPLETION OF COMMERCIAL AND INDUSTRIAL DEVELOPMENTS (Private and Public Sectors)

Thousand sq m gross

	1998	1999	2000	2001
Office Space				
Provisional Permission	202	97	213	330
Written Permission	214	337	171	191
Building Plan Approval	196	56	45	109
Building Commencement	345	82	81	100
Building Completion	358	174	367	264
Shop Space				
Provisional Permission	60	14	85	61
Written Permission	32	37	59	72
Building Plan Approval	52	4	48	35
Building Commencement	46	34	50	40
Building Completion	86	70	43	13
Factory Space				
Provisional Permission	1,350	933	1,238	1,368
Written Permission	2,226	1,191	1,116	894
Building Plan Approval	1,901	496	870	699
Building Commencement	918	810	1,053	1,205
Building Completion	1,831	1,137	1,137	983
Warehouse Space				
Provisional Permission	105	149	85	154
Written Permission	450	97	131	122
Building Plan Approval	427	67	115	69
Building Commencement	73	139	69	184
Building Completion	452	237	196	167

Source : Urban Redevelopment Authority

11.7 CONTRACTS AWARDED BY SECTOR AND TYPE OF WORK

Million Dollars

Type of Work	1991	1996	1997	1998	1999	2000	2001
All Sectors							
Total	7,874	20,291	24,400	16,637	13,096	20,163	12,833
Building Work	6,598	16,257	19,863	12,926	10,778	11,396	9,639
Residential	2,685	7,498	11,309	5,319	4,939	4,750	3,602
Commercial	1,774	2,320	2,222	2,483	882	827	459
Industrial	1,221	4,094	3,968	2,980	2,650	3,279	2,594
Others	918	2,345	2,364	2,145	2,307	2,541	2,985
Civil Engineering Work	1,276	4,033	4,536	3,711	2,318	8,767	3,195
Private Sector							
Total	4,020	9,654	12,670	5,973	6,652	8,055	5,801
Building Work	4,005	9,386	12,541	5,723	5,913	7,550	5,563
Residential	1,147	3,686	6,850	2,024	2,115	3,140	2,671
Commercial	1,715	2,002	1,434	1,011	763	668	384
Industrial	1,024	3,339	3,646	2,370	2,458	3,137	2,143
Others	119	358	611	318	577	605	366
Civil Engineering Work	15	269	129	250	739	506	238
Public Sector							
Total	3,854	10,637	11,730	10,664	6,445	12,109	7,033
Building Work	2,593	6,872	7,323	7,204	4,866	3,847	4,076
Residential	1,538	3,811	4,459	3,295	2,824	1,610	931
Commercial	59	318	788	1,472	119	159	75
Industrial	197	755	322	610	192	142	451
Others	799	1,987	1,753	1,828	1,731	1,936	2,619
Civil Engineering Work	1,261	3,765	4,407	3,460	1,579	8,262	2,957

Source : Building and Construction Authority

11.8 PROGRESS PAYMENTS CERTIFIED BY SECTOR AND TYPE OF WORK

Million Dollars

Type of Work	1991	1996	1997	1998	1999	2000	2001
All Sectors							
Total	6,821	15,772	19,236	19,829	17,249	15,926	15,184
Building Work	5,540	13,597	16,294	16,511	13,849	12,438	10,860
Residential	2,277	6,990	8,718	8,760	6,935	5,100	3,996
Commercial	1,305	1,775	1,912	1,977	1,470	1,570	1,406
Industrial	1,140	3,297	3,392	3,181	2,648	3,093	2,567
Others	818	1,536	2,272	2,592	2,796	2,675	2,891
Civil Engineering Work	1,281	2,175	2,942	3,318	3,400	3,488	4,325
Private Sector							
Total	3,439	8,543	9,734	9,656	7,296	7,484	6,635
Building Work	3,337	8,210	9,351	9,150	6,855	7,002	6,066
Residential	980	3,590	4,453	4,209	3,251	2,681	2,349
Commercial	1,221	1,566	1,562	1,674	1,053	991	820
Industrial	953	2,678	2,932	2,791	2,174	2,891	2,365
Others	182	376	404	475	376	440	533
Civil Engineering Work	102	333	383	506	441	482	569
Public Sector							
Total	3,382	7,230	9,503	10,173	9,954	8,443	8,549
Building Work	2,203	5,388	6,944	7,361	6,995	5,438	4,793
Residential	1,297	3,400	4,265	4,551	3,684	2,420	1,647
Commercial	84	210	350	303	416	579	586
Industrial	187	619	461	390	474	203	202
Others	636	1,160	1,868	2,117	2,420	2,236	2,358
Civil Engineering Work	1,179	1,842	2,559	2,812	2,960	3,006	3,756

Source : Building and Construction Authority

11.9 PROPERTIES UNDER THE MANAGEMENT OF HOUSING AND DEVELOPMENT BOARD

(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Residential	626,313	725,144	755,313	790,898	823,760	846,649	863,552
1-room	28,125	25,540	25,182	25,161	24,920	23,623	21,812
2-room	38,445	34,939	34,610	34,592	34,180	33,741	31,514
3-room	248,358	240,164	239,562	238,860	237,433	234,997	233,153
4-room	207,773	252,809	267,517	282,601	296,109	306,001	314,610
5-room	74,714	121,486	134,051	150,556	167,365	181,498	194,032
Executive ¹	23,426	46,134	50,320	55,711	60,403	63,439	64,487
HUDC ²	5,472	4,072	4,071	3,417	3,350	3,350	3,008
Studio Apartment	-	-	-	-	-	-	936
Commercial/Industrial Units	30,594	30,037	30,351	30,410	32,391	31,353	31,018

Source : Housing & Development Board

1 From 1987, figures include multi-generation flats.

2 For 1989-1998, figures include other residential properties.

From 1999, figures exclude other residential properties.

11.10 RESIDENTIAL UNITS CONSTRUCTED AND SOLD BY HOUSING AND DEVELOPMENT BOARD

	1991	1996	1997	1998	1999	2000	2001
Flats Constructed (No)	10,452	27,484	31,312	36,609	34,836	27,678	23,913
Flats Sold Under 'Home Ownership Scheme' ¹ (No)	15,002	26,532	28,220	36,966	29,893	26,329	19,987
Percentage of Population Living in Public Flats ² (End of Period)	87	86	86	86	86	86	85

Source : Housing & Development Board

1 Flats are considered 'sold' only when keys are issued to the applicants. From 1991, figures include HUDC units.

2 From 1990 onwards, data refer to resident population.

11.11

RESIDENTIAL UNITS UNDER THE MANAGEMENT OF HOUSING AND
DEVELOPMENT BOARD, DECEMBER 2001

Town ¹	Total	1-room	2-room	3-room	4-room	5-room	Executive ²	Number
								Studio Apartment
Total	860,544	21,812	31,514	233,153	314,610	194,032	64,487	936
Ang Mo Kio	47,996	1,338	3,647	24,887	12,684	4,965	475	-
Bedok	58,732	2,250	2,004	22,702	19,021	9,916	2,709	130
Bishan	19,011	396	-	2,363	9,199	5,393	1,660	-
Bukit Batok	31,026	92	164	11,190	12,786	4,059	2,735	-
Bukit Merah	51,380	5,632	6,172	19,383	12,176	7,845	42	130
Bukit Panjang	28,097	-	-	2,620	13,239	8,857	3,381	-
Bukit Timah	2,424	-	-	443	920	681	380	-
Central Area	12,085	2,469	1,755	5,280	2,300	272	9	-
Choa Chu Kang	38,987	-	240	1,316	19,341	13,330	4,760	-
Clementi	24,820	652	740	13,013	7,446	2,350	619	-
Geylang	30,044	1,044	3,827	12,175	8,768	3,401	829	-
Hougang	47,236	538	315	9,613	22,892	9,572	4,306	-
Jurong East	23,126	-	-	7,763	7,331	6,018	1,871	143
Jurong West	68,230	-	502	13,043	27,858	20,321	6,506	-
Kallang/Whampoa	33,590	4,413	2,807	14,146	7,586	4,153	485	-
Lim Chu Kang	47	-	-	38	9	-	-	-
Marine Parade	7,867	-	1,350	3,050	1,798	1,669	-	-
Pasir Ris	27,418	-	21	168	10,716	9,053	7,460	-
Punggol	7,324	-	-	-	1,708	5,120	496	-
Queenstown	28,437	620	3,421	16,579	4,592	2,866	359	-
Sembawang	16,306	-	-	435	6,146	6,855	2,870	-
Sengkang	34,765	160	-	241	12,455	17,361	4,548	-
Serangoon	21,240	-	154	4,745	10,231	3,745	2,365	-
Tampines	61,487	154	126	12,268	27,057	15,831	5,843	208
Toa Payoh	35,637	1,170	3,933	17,095	7,561	4,870	852	156
Woodlands	56,644	868	320	5,531	25,487	18,249	6,189	-
Yishun	46,588	16	16	13,066	23,303	7,280	2,738	169

Source : Housing & Development Board

Note : Data exclude HUDC and landed properties.

1 Equivalent to Town Registration Boundary.

2 Include multi-generation flats and penthouses.

11.12

**DEMAND, SUPPLY AND OCCUPANCY OF JTC CORPORATION
STANDARD/FLATTED FACTORIES AND INDUSTRIAL LANDS**

Factory Space/Industrial Land	1991	1996	1997	1998	1999	2000	2001
Flatted Factory Space ('000 sq m)							
Gross Allocation	120	163	236	105	160	208	144
Termination	99	153	172	158	127	110	118
Net Allocation	21	10	64	-53	33	98	27
Demand	908	1,018	1,093	1,039	1,072	1,169	1,198
Supply	920	1,131	1,296	1,336	1,415	1,445	1,505
Occupancy Rate (%)	99	90	84	78	76	81	80
Standard Factory Space ('000 sq m)							
Gross Allocation	111	156	133	38	54	87	46
Termination	12	41	47	58	52	53	47
Net Allocation	98	115	86	-20	2	33	-1
Demand	1,568	2,185	2,258	2,248	2,254	2,289	2,288
Supply	1,653	2,337	2,384	2,522	2,521	2,526	2,496
Occupancy Rate (%)	95	94	95	89	89	91	92
Industrial Land ¹ (hectares)							
Gross Allocation	142	161	178	200	122	105	148
Termination	16	30	44	110	92	92	98
Net Allocation	126	131	134	91	30	13	49
Prepared Land							
Demand	3,186	3,802	3,902	4,001	4,019	4,041	4,070
Supply	3,854	4,058	4,242	4,563	4,686	4,823	4,854

Source : JTC Corporation

¹ Exclude industrial land used for JTC Standard/Flatted Factory developments.

COMMERCE AND SERVICES

There were 1,000 establishments in the commerce and services sector in 1993. The number of establishments in the sector increased by 10 per cent from 1992 to 1993. The number of establishments in the sector increased by 10 per cent from 1992 to 1993. The number of establishments in the sector increased by 10 per cent from 1992 to 1993.

The number of establishments in the commerce and services sector in 1993 was 1,000. The number of establishments in the sector increased by 10 per cent from 1992 to 1993. The number of establishments in the sector increased by 10 per cent from 1992 to 1993.

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The first statistical inquiry on the Services Sector was conducted by the Singapore Department of Statistics for the reference year 1967 and that on the Commerce Sector for the reference year 1968. The next inquiries on these two sectors were for reference years 1972 and 1973 respectively. Since then, they were conducted biennially until 1985 and subsequently on an annual basis.

Scope and Coverage

The Survey of Services covers all establishments, including statutory boards and non-profit organizations, engaged in transport, storage and communications, financial, insurance, real estate, business services and community, social and personal services, as classified under Sections I, J, K, L, M, N and O of the "Singapore Standard Industrial Classification (SSIC) 2000". Government ministries and departments, foreign missions, political parties, taxi and trishaw operators, independent artistes and domestic servants are outside the scope of the survey. From the reference year 1986, establishments engaged in financial activities such as banking, financial, stock-broking and insurance services are surveyed by the Monetary Authority of Singapore.

The Survey of Commerce covers all establishments (except hawkers and stall-holders) engaged in wholesale and retail trades, restaurants and hotels as classified under Sections G and H of the SSIC 2000.

Prior to 1976, both surveys were conducted on a census basis. From 1976 to 1982, sample surveys were carried out while for reference years 1983 and 1984, censuses of commerce and services were respectively undertaken. For reference years 1985 to 1992 and 1995 to 2000, annual sample surveys were conducted. Censuses of commerce and services

were again conducted for reference years 1993 and 1994 respectively.

For sample surveys, stratified sampling by industry was adopted. Within each industry, establishments with large operating receipts were selected with certainty and the rest were sampled.

The statistical unit used in both surveys is the establishment. A separate return is normally required from each branch of a multi-activity firm, organization or enterprise. However, a consolidated return is allowed if the accounts are so kept that it is not possible to obtain separate data for each individual branch.

Definitions

Establishment: Refers to a business or organization unit engaged in one activity and generally operating in a single location.

Employment: Refers to the total number of persons engaged, including part-time employees, working proprietors and partners, working directors and unpaid family workers as at 30 June of the reference year. It includes those temporarily away on leave.

Remuneration: Refers to the amount paid to employees in the form of wages and salaries, bonuses and allowances, CPF/ pension fund contributions and that given to unpaid family workers and directors as allowances, fees and benefits in kind.

Turnover/Operating Receipts: Refers to the total receipts and receivables from sales of goods and services including commissions and brokerage fees, insurance premiums and rental income. For financial institutions, operating receipts include interest, dividend income and gains from transactions in stocks and shares and foreign exchange.

Operating Expenditure: Refers to the aggregate of all current expenditure after adjustment for changes in stocks and work-in-progress. For insurance companies, claims, surrenders, cash bonus and annuities paid and increases in insurance funds or liability reserves are also included in operating expenditure.

Operating Surplus: Refers to the amount of operating receipts less operating expenditure plus depreciation of fixed assets. For local offices of foreign airlines and foreign shipping lines, representative offices of foreign banks and companies and non-profit organizations, operating surplus refers only to depreciation of fixed assets.

Value Added: Comprises the value of operating surplus, remuneration and indirect taxes. However, for financial and insurance services, value added is computed on a different basis. For the Monetary Authority of Singapore, Board of Commissioners of Currency and investment holding companies, value added is the sum of remuneration, depreciation allowances and indirect taxes. For other financial institutions, value added refers to the sum of operating surplus, remuneration and indirect taxes less dividends received and net gains from stocks and share transactions, commodity and financial futures and gold trading. For insurance companies, value added refers to the sum of operating surplus, remuneration, imputed amount of commissions paid and indirect taxes less dividends received and net gains from foreign exchange, stocks and share transactions as well as gold trading.

Sales Indices of Retail and Catering Trade

The sales indices of retail and catering trade are compiled from the results of the Retail and Catering Trade Sales Survey initiated in 1985. The survey covers a sample of retail and catering establishments. Retail

establishments are defined as those selling merchandise directly to the consumers. Catering establishments are defined as those selling prepared food and drinks for in-premises consumption or on a take-away basis such as restaurants, fast food outlets, coffee houses, cafes, coffee shops, creameries, snack bars, canteens and food caterers. Hawkers and stallholders (including those in the food courts) selling cooked food and prepared drinks are not considered as catering establishments.

For the compilation of indices, survey data are supplemented by administrative records.

The overall indices are compiled by assigning a weight to each activity based on their turnover in the base year. Two series of the indices are compiled and presented, one at current prices and the other at constant prices. The base year of the indices is 1997.

Wholesale Trade Index

The Wholesale Trade Index (WTI) measures the sales transactions of wholesale establishments in the economy. Data for the compilation of the WTI are sourced from some 750 wholesale establishments covered in the quarterly survey of wholesale trade and business expectations surveys. The base year for the WTI is 1994.

Two series of the WTI are compiled - the Domestic WTI and Foreign WTI. The Domestic WTI records sales transactions made locally. It captures the sale of wholesale goods from wholesalers to other wholesalers, manufacturers and retailers whose business operations are in Singapore. The Foreign WTI pertains to wholesale trade outside Singapore. It comprises wholesale exports of goods manufactured in Singapore, re-exports, offshore merchandise and transshipment cargo.

Business Receipts Index

The Business Receipts Index (BRI) provides a current indicator for monitoring the performance of the services sector. In addition to the overall index, twelve component indices are compiled for major service industries including land transport, water transport, air transport, transport-related services, post and telecommunications, information technology services, professional services, medical services, real estate services, business services, financial and insurance services. In general, business receipts refer to the operating income derived from services rendered which includes commissions and fees earned but excludes the goods and services tax.

Data for the compilation of the BRI are collected from some 1,130 establishments covered in the quarterly survey of services, business expectations survey and the survey of national income estimates. The base year for the BRI is 1997.

Revenue of the Information and Communication Technology Industry

Revenue of the Information and Communication Technology Industry refers to the sales of complete systems by IT and telecommunications vendors and service providers to end users. All manufacturing output and sales to distributors are excluded.

Prior to 1998, the survey frame comprises companies with business activities relating to IT products and services as classified by the Singapore Standard Industrial Classification. These companies are also members of associations such as Singapore Federation of Computer Industry (SFCI) and the Microcomputer Trade of Singapore (MTAS). In 1998, companies in the telecommunications business are also included.

Other References

Further information on the concepts and methodology and detailed statistics prior to the reference year 1990 may be obtained from the "Report on the Survey of Services", and the "Report on the Survey of Wholesale Trade, Retail Trade, Restaurants and Hotels". From reference year 1990 onwards, they can be obtained from the various industry-specific reports under the Economic Survey Series, viz "Transport & Communications", "Real Estate & Business Services", "Community, Social & Personal Services", "Wholesale & Retail", "Hotels & Catering" and "The Services Sector". From 1999 reference year, the Economic Surveys Series report on Wholesale & Retail is published separately, i.e. Wholesale Trade and Retail Trade. There is also an additional consolidated report on The Commerce Sector comprising wholesale, retail, hotels and catering trade.

12.1 PRINCIPAL STATISTICS OF THE COMMERCE SECTOR BY INDUSTRY

Year	Establish- ments	Employ- ment	Remunera- tion	Turnover	Operating Expenditure	Operating Surplus	Value Added
	Number		Million Dollars				
Total							
1990	43,295	279,827	5,111	183,932	178,584	6,187	12,147
1995	47,792	341,562	9,798	341,296	334,409	8,447	21,980
1996	51,847	354,128	10,886	373,371	366,421	8,749	22,997
1997	54,913	351,273	10,762	378,423	371,797	8,459	22,250
1998	53,929	342,489	10,698	327,230	322,467	6,530	19,830
1999	53,813	348,480	10,712	366,933	359,333	9,499	23,655
2000	54,387	349,652	11,478	453,167	444,883	10,153	26,271
Wholesale Trade							
1990	22,439	136,133	3,383	162,966	159,022	4,445	7,983
1995	26,203	179,430	6,915	311,255	305,882	6,423	14,352
1996	28,832	188,659	7,761	342,733	337,320	6,674	15,456
1997	31,519	178,984	7,475	346,929	341,702	6,507	14,727
1998	31,709	181,781	7,615	300,115	296,405	4,938	13,224
1999	31,909	187,158	7,725	336,762	330,760	7,363	15,825
2000	32,463	189,765	8,281	419,975	413,523	7,779	16,638
Retail Trade							
1990	17,726	74,902	808	16,892	16,034	978	2,354
1995	18,415	86,318	1,456	24,623	23,737	1,095	5,094
1996	19,548	87,267	1,553	24,883	23,968	1,136	4,864
1997	19,818	86,361	1,584	25,227	24,450	1,008	4,700
1998	18,751	82,101	1,511	21,586	20,952	858	4,155
1999	18,514	86,637	1,525	24,731	23,643	1,312	5,425
2000	18,372	85,589	1,631	27,236	26,030	1,432	6,989
Hotels and Catering							
1990	3,130	68,792	920	4,074	3,528	764	1,809
1995	3,174	75,814	1,427	5,419	4,790	929	2,534
1996	3,467	78,202	1,572	5,755	5,133	939	2,677
1997	3,576	85,928	1,703	6,267	5,644	944	2,823
1998	3,469	78,607	1,572	5,529	5,110	734	2,451
1999	3,390	74,685	1,462	5,440	4,930	824	2,405
2000	3,552	74,298	1,566	5,956	5,330	942	2,644

12.2 SELECTED AVERAGES AND RATIOS IN THE COMMERCE SECTOR

Year	Turnover	Operating Surplus	Value Added	Value Added Per Person Engaged	Operating Surplus to Turnover	Remuneration to Operating Expenditure	Remuneration to Value Added	
	Per Establishment			Value Added Per Person Engaged	Operating Surplus to Turnover	Remuneration to Operating Expenditure	Remuneration to Value Added	
	Thousand Dollars							Per Cent
Total								
1990	4,248	143	281	43	3.4	2.9	42.1	
1995	7,141	177	460	64	2.5	2.9	44.6	
1996	7,201	169	444	65	2.3	3.0	47.3	
1997	6,891	154	405	63	2.2	2.9	48.4	
1998	6,068	121	368	58	2.0	3.3	53.9	
1999	6,819	177	440	68	2.6	3.0	45.3	
2000	8,332	187	483	75	2.2	2.6	43.7	
Wholesale Trade								
1990	7,263	198	356	59	2.7	2.1	42.4	
1995	11,879	245	548	80	2.1	2.3	48.2	
1996	11,887	231	536	82	1.9	2.3	50.2	
1997	11,007	206	467	82	1.9	2.2	50.8	
1998	9,465	156	417	73	1.6	2.6	57.6	
1999	10,554	231	496	85	2.2	2.3	48.8	
2000	12,937	240	513	88	1.9	2.0	49.8	
Retail Trade								
1990	953	55	133	31	5.8	5.0	34.3	
1995	1,337	59	277	59	4.4	6.1	28.6	
1996	1,273	58	249	56	4.6	6.5	31.9	
1997	1,273	51	237	54	4.0	6.5	33.7	
1998	1,151	46	222	51	4.0	7.2	36.4	
1999	1,336	71	293	63	5.3	6.5	28.1	
2000	1,483	78	380	82	5.3	6.3	23.3	
Hotels and Catering								
1990	1,302	244	578	26	18.8	26.1	50.9	
1995	1,707	293	798	33	17.1	29.8	56.3	
1996	1,660	271	772	34	16.3	30.6	58.7	
1997	1,753	264	789	33	15.1	30.2	60.3	
1998	1,594	212	707	31	13.3	30.8	64.1	
1999	1,605	243	709	32	15.1	29.7	60.8	
2000	1,677	265	744	36	15.8	29.4	59.2	

12.3

PRINCIPAL STATISTICS OF THE SERVICES SECTOR BY INDUSTRY

Year	Establish- ments	Employ- ment	Remunera- tion	Operating Receipts ¹	Operating Expenditure ¹	Operating Surplus ¹	Value Added	
	Number		Million Dollars					
Transport, Storage and Communications Services								
1990	5,970	99,719	2,747	18,794	14,890	5,031	8,059	
1995	7,983	123,272	4,555	30,677	23,990	8,593	13,682	
1996	8,058	123,991	4,764	32,421	25,706	8,743	14,042	
1997	8,724	130,660	5,313	34,091	26,956	9,146	15,076	
1998	8,522	128,550	5,302	37,414	31,314	8,916	14,759	
1999	8,740	128,943	5,333	40,908	33,605	9,838	15,724	
2000	8,807	133,751	5,930	45,255	37,272	10,791	17,207	
Financial and Insurance Services ²								
1990	2,724	11,733	386	10,970	6,266	4,786	1,006	
1995	4,797	17,403	937	17,817	10,944	7,057	2,038	
1996	5,156	17,984	1,128	24,308	11,094	13,428	2,476	
1997	5,499	18,721	1,257	22,908	10,060	13,075	2,860	
1998	5,760	17,573	1,272	24,271	10,884	13,585	2,317	
1999	5,771	17,656	1,325	24,977	11,521	13,733	2,712	
2000	6,206	18,751	1,538	30,003	13,644	16,800	3,593	
Real Estate and Business Services ³								
1990	10,943	90,142	2,273	16,639	13,452	3,790	6,496	
1995	18,137	133,993	5,345	35,789	29,915	6,881	13,304	
1996	20,214	139,592	5,936	39,506	33,430	7,445	14,452	
1997	21,853	152,161	6,450	40,901	34,923	7,421	15,032	
1998	23,545	166,767	7,020	40,091	33,978	7,728	15,731	
1999	23,682	176,124	7,347	39,409	33,179	7,874	16,058	
2000	23,247	187,641	8,583	39,555	33,225	8,061	17,584	

(continued on next page)

- 1 With effect from 1995, 'rental for land' has been reclassified from an operating to a non-operating item, according to the Singapore System of National Accounts classification.
- 2 Data exclude establishments within the purview of the Monetary Authority of Singapore (MAS).
- 3 With effect from 1999, data include the publishing industry. Data for 1999 refer to publishing firms with 10 & more workers while that for 2000 refer to the whole industry.

12.3 PRINCIPAL STATISTICS OF THE SERVICES SECTOR BY INDUSTRY (continued)

Year	Establish- ments	Employ- ment	Remunera- tion	Operating Receipts ¹	Operating Expenditure ¹	Operating Surplus ¹	Value Added
	Number		Million Dollars				
Community, Social and Personal Services ⁴							
1990	9,013	57,688	972	3,803	3,325	645	2,116
1995	11,706	86,667	2,111	7,988	7,006	1,390	4,560
1996	10,634	84,548	2,316	8,395	7,435	1,369	4,876
1997	11,402	92,545	2,595	9,431	8,379	1,482	5,359
1998	11,561	98,567	2,823	9,461	8,558	1,403	5,509
1999	12,170	99,824	2,671	9,497	8,507	1,467	5,471
2000	12,911	106,355	2,931	10,626	9,641	1,547	5,981
Non-profit Organisations ⁵							
1990	4,436	40,283	1,103	1,047	2,445	197	1,371
1995	5,664	52,565	2,169	2,117	5,175	496	2,686
1996	6,070	59,330	2,479	2,639	6,146	635	3,254
1997	6,067	61,547	2,546	2,879	6,746	645	3,364
1998	6,077	66,662	2,632	3,162	7,239	647	3,469
1999	6,770	71,329	2,817	3,395	7,656	771	3,855
2000	6,709	71,443	3,401	3,755	9,029	833	4,506

4 The formulae for computing operating receipts, operating surplus and value added have been revised in 1993. For comparability, previous years' data were correspondingly revised.

5 Data exclude mutual benefit organisations, citizens' consultative committees & residents' committees.

12.4

SELECTED AVERAGES AND RATIOS IN THE SERVICES SECTOR

(Excluding Non-Profit Organisations)

Year	Operating Receipts ¹	Operating Surplus ¹	Value Added	Value Added Per Person Engaged	Operating Surplus to Operating Receipts ¹	Remuneration to Operating Expenditure ¹	Remuneration to Value Added
	Per Establishment						
	Thousand Dollars				Per Cent		
Total							
1990	1,752	497	617	68	28.4	16.8	36.1
1995	2,165	561	788	93	25.9	18.0	38.6
1996	2,375	703	814	98	29.6	18.2	39.5
1997	2,261	656	807	97	29.0	19.4	40.7
1998	2,252	641	776	93	28.4	19.4	42.8
1999	2,276	654	792	95	28.7	19.2	41.7
2000	2,451	727	867	99	29.7	20.2	42.8
Transport, Storage and Communications Services							
1990	3,148	843	1,350	81	26.8	18.4	34.1
1995	3,843	1,076	1,714	111	28.0	19.0	33.3
1996	4,024	1,085	1,743	113	27.0	18.5	33.9
1997	3,908	1,048	1,728	115	26.8	19.7	35.2
1998	4,390	1,046	1,732	115	23.8	16.9	35.9
1999	4,681	1,126	1,799	122	24.0	15.9	33.9
2000	5,139	1,225	1,954	129	23.8	15.9	34.5
Financial and Insurance Services ²							
1990	4,027	1,757	369	86	43.6	6.2	38.4
1995	3,714	1,471	425	117	39.6	8.6	46.0
1996	4,714	2,604	480	138	55.2	10.2	45.5
1997	4,166	2,378	520	153	57.1	12.5	43.9
1998	4,214	2,359	402	132	56.0	11.7	54.9
1999	4,328	2,380	470	154	55.0	11.5	48.8
2000	4,835	2,707	579	192	56.0	11.3	42.8

(continued on next page)

1 With effect from 1995, 'rental for land' has been reclassified from an operating to a non-operating item, according to the Singapore System of National Accounts classification.

2 Data exclude establishments within the purview of the Monetary Authority of Singapore (MAS).

12.4

SELECTED AVERAGES AND RATIOS IN THE SERVICES SECTOR (continued)

(Excluding Non-Profit Organisations)

Year	Operating Receipts ¹	Operating Surplus ¹	Value Added	Value Added Per Person Engaged	Operating Surplus to Operating Receipts ¹	Remuneration to Operating Expenditure ¹	Remuneration to Value Added
	Per Establishment			Engaged	Receipts ¹	Expenditure ¹	Value Added
	Thousand Dollars						
Real Estate and Business Services ³							
1990	1,521	346	594	72	22.8	16.9	35.0
1995	1,973	379	734	99	19.2	17.9	40.2
1996	1,954	368	715	104	18.8	17.8	41.1
1997	1,872	340	688	99	18.1	18.5	42.9
1998	1,703	328	668	94	19.3	20.7	44.6
1999	1,664	332	678	91	20.0	22.1	45.8
2000	1,702	347	756	94	20.4	25.8	48.8
Community, Social and Personal Services ⁴							
1990	422	72	235	37	17.0	29.2	45.9
1995	682	119	390	53	17.4	30.1	46.3
1996	789	129	459	58	16.3	31.2	47.5
1997	827	130	470	58	15.7	31.0	48.4
1998	818	121	477	56	14.8	33.0	51.2
1999	780	121	450	55	15.4	31.4	48.8
2000	823	120	463	56	14.6	30.4	49.0

3 With effect from 1999, data include the publishing industry. Data for 1999 refer to publishing firms with 10 & more workers while that for 2000 refer to the whole industry.

4 The formulae for computing operating receipts, operating surplus and value added have been revised in 1993. For comparability, previous years' data were correspondingly revised.

12.5

RETAIL SALES INDEX
(1997=100)

	Weights ¹	1996	1997	1998	1999	2000	2001
At Current Prices							
Total	10,000	102.5	100.0	92.2	105.6	128.4	133.1
Total (excl Motor Vehicles)	7,360	97.6	100.0	90.8	96.2	103.0	102.1
Department Stores	1,395	101.4	100.0	89.0	98.0	104.3	99.9
Supermarkets	301	88.5	100.0	117.9	115.8	123.0	138.3
Provision & Sundry Shops	592	96.7	100.0	100.5	97.6	100.6	104.7
Food & Beverages	200	103.2	100.0	76.9	83.1	87.6	89.1
Motor Vehicles	2,640	122.9	100.0	96.2	131.6	199.4	219.5
Petrol Service Stations	310	101.8	100.0	98.9	92.2	104.4	100.5
Medical Goods & Toiletries	319	95.7	100.0	95.8	104.1	113.1	115.0
Wearing Apparel & Footwear	713	106.5	100.0	88.9	102.0	107.7	107.2
Furniture & Household							
Equipment	1,047	91.4	100.0	98.6	105.9	111.6	103.7
Recreational Goods	201	90.4	100.0	86.2	98.1	103.6	97.7
Watches & Jewellery	911	90.0	100.0	74.4	80.8	80.6	81.8
Telecommunications &							
Computers	356	94.6	100.0	68.9	72.1	97.1	86.9
Optical Goods & Books	381	94.8	100.0	90.7	97.5	107.3	106.9
Others	634	106.6	100.0	97.4	95.8	105.2	113.4
At Constant Prices							
Total	10,000	100.1	100.0	94.1	109.4	137.0	148.3
Total (excl Motor Vehicles)	7,360	96.5	100.0	91.4	98.5	105.7	105.3
Department Stores	1,395	102.3	100.0	89.7	99.1	105.5	100.8
Supermarkets	301	90.5	100.0	118.3	114.8	120.7	134.6
Provision & Sundry Shops	592	99.2	100.0	100.0	96.5	98.8	101.7
Food & Beverages	200	105.0	100.0	76.8	82.5	86.0	86.1
Motor Vehicles	2,640	117.3	100.0	101.5	139.5	224.4	268.1
Petrol Service Stations	310	106.1	100.0	98.5	95.2	92.5	91.5
Medical Goods & Toiletries	319	95.3	100.0	95.7	103.3	111.5	111.6
Wearing Apparel & Footwear	713	106.5	100.0	90.7	106.0	112.9	112.4
Furniture & Household							
Equipment	1,047	91.2	100.0	99.8	109.9	118.3	111.7
Recreational Goods	201	90.0	100.0	85.6	99.7	104.9	100.3
Watches & Jewellery	911	82.3	100.0	74.8	85.1	84.5	85.6
Telecommunications &							
Computers	356	86.9	100.0	74.3	85.6	127.1	130.4
Optical Goods & Books	381	94.9	100.0	90.3	97.5	107.6	107.4
Others	634	105.9	100.0	96.7	95.6	103.9	110.9

¹ Based on turnover data derived from the 1997 Annual Survey of Retail Trade.

12.6 SALES INDEX OF CATERING TRADE

(1997=100)

	Weights ¹	1991	1996	1997	1998	1999	2000	2001
At Current Prices								
Total	1,000	71.3	94.9	100.0	93.7	93.4	100.3	99.1
Restaurants	450	74.8	98.9	100.0	89.8	91.2	100.3	96.7
Fast Food Outlets	131	54.8	92.4	100.0	99.0	105.8	112.0	110.5
Others	419	74.9	92.4	100.0	96.2	91.8	96.6	98.2
At Constant Prices								
Total	1,000	82.8	96.4	100.0	92.1	91.1	97.3	94.6
Restaurants	450	89.1	101.4	100.0	88.4	88.8	97.1	91.9
Fast Food Outlets	131	60.5	91.6	100.0	96.1	102.4	107.6	103.7
Others	419	86.6	94.1	100.0	94.9	90.1	94.3	94.7

Note : Catering trade refers to the sales of prepared food and drinks for in-premises consumption or on a take-away basis.

All eating places are included with the exception of hawker stalls.

1 Based on turnover data derived from the 1997 Annual Survey of Catering Trade.

12.7

WHOLESALE TRADE INDEX
 (1994=100)

	Weights ¹	1996	1997	1998	1999	2000	2001
Domestic Wholesale Trade Index							
Total	10,000	107.5	117.2	104.7	109.4	141.5	125.2
Total (excl Petroleum)	8,091	106.9	115.5	102.4	99.7	109.4	96.2
Food, Beverages & Tobacco	839	128.4	133.6	134.1	130.4	126.7	132.2
Textiles, Wearing Apparel & Personal Effects	519	85.9	93.4	69.5	77.7	77.6	71.4
Household Equipment & Furniture	1,138	99.7	131.5	109.8	89.6	93.8	77.3
Petroleum & Petroleum Products	1,909	110.4	124.6	114.6	150.3	277.2	248.2
Electronic & Electrical Components & Industrial Machinery	2,067	98.6	99.3	84.3	87.2	105.2	76.1
Office Equipment, Computers & Accessories	566	139.4	162.5	171.5	181.7	199.5	189.7
Timber, Paints & Construction Materials	767	113.6	113.7	82.5	81.1	80.1	67.4
General Wholesale Trade	513	120.2	136.2	141.7	110.5	107.6	89.4
Other Wholesale Trade	1,682	99.6	101.1	87.7	91.0	110.1	107.3
Foreign Wholesale Trade Index							
Total	10,000	132.0	141.4	121.2	137.4	193.9	171.4
Total (excl Petroleum)	6,550	125.5	127.2	111.4	111.7	133.6	124.3
Food, Beverages & Tobacco	583	107.8	122.7	146.2	120.9	114.8	127.9
Textiles, Wearing Apparel & Personal Effects	257	103.5	97.0	69.8	74.6	87.5	83.2
Household Equipment & Furniture	1,227	98.6	87.8	76.5	54.0	66.0	65.2
Petroleum & Petroleum Products	3,450	144.3	168.3	139.8	186.2	308.3	260.8
Electronic & Electrical Components & Industrial Machinery	1,026	136.9	134.6	135.3	163.5	215.2	175.9
Office Equipment, Computers & Accessories	327	153.3	169.9	143.4	173.0	205.9	205.4
Timber, Paints & Construction Materials	360	97.1	98.4	58.1	68.9	76.6	67.0
General Wholesale Trade	1,472	122.2	123.7	100.1	87.6	108.5	95.3
Other Wholesale Trade	1,298	158.8	167.9	137.4	152.3	176.7	174.0

¹ Based on turnover data derived from the 1994 Annual Survey of Wholesale Trade.

12.8 BUSINESS RECEIPTS INDEX FOR SERVICE INDUSTRIES (1997 = 100)

	Weights ¹	1998	1999	2000	2001
Total	10,000	92.4	98.6	110.3	112.9
Total (excluding financial & insurance services)	7,365	92.7	96.8	109.3	110.0
Land Transport	386	94.0	92.2	101.0	103.7
Water Transport	1,967	78.0	88.6	99.3	96.8
Air Transport	1,170	98.5	110.1	124.9	114.2
Transport Related Services	643	92.1	97.2	106.5	108.2
Post & Telecommunications	638	104.8	104.8	123.0	135.3
Information Technology Services	326	109.2	103.6	117.1	124.7
Professional Services	890	95.0	96.0	115.6	123.4
Real Estates (excluding developers)	594	98.0	88.8	88.6	88.6
Business Services	469	91.9	88.1	106.3	101.6
Medical Services	282	107.4	111.1	121.2	140.1
Financial Services	2,120	94.7	109.8	108.2	111.3
Insurance Services	515	78.6	79.3	133.8	161.9

¹ Based on operating receipts derived from the 1997 Annual Survey of Services.

12.9 REVENUE OF THE INFORMATION AND COMMUNICATION TECHNOLOGY INDUSTRY

	Million Dollars						
	1990	1995	1996	1997	1998	1999	2000
Local and Export Market ¹							
Total	2,147.8	6,727.8	9,036.5	11,951.3	19,954.0	23,241.0	25,932.0
Local	1,490.5	3,387.4	3,935.6	4,960.9	10,804.0	12,320.0	13,372.0
Export	657.2	3,340.4	5,100.9	6,990.4	9,150.0	10,921.0	12,560.0
Hardware and Software/IT Services Market ¹							
Total	2,147.8	6,727.8	9,036.5	11,951.3	19,954.0	23,241.0	25,932.0
Hardware	1,594.6	5,088.3	7,012.7	9,269.5	7,582.5	8,969.0	9,828.0
Software / IT Services	553.2	1,639.5	2,023.8	2,681.8	4,988.5	5,478.0	6,396.0
Telecommunications	-	-	-	-	7,383.0	8,364.0	9,120.0
Online Digital Media & Others	-	-	-	-	-	431.0	589.0

Source : Infocomm Development Authority of Singapore

¹ With effect from 1998, data include telecommunications revenue.

EXTERNAL TRADE

- # L TRADE

13 EXTERNAL TRADE

Sources of Data

From April 1987, Singapore's external trade statistics are compiled by the International Enterprise Singapore Board from import and export permits submitted to the Controller and Registrar of Imports and Exports or the Director-General of Customs and Excise, Singapore, except for the following: -

- (i) Postal packages which are based on particulars furnished by the Singapore Post Pte Ltd; and
- (ii) Bunkers and stores supplied to non-Singapore-registered ships and aircraft, which are compiled from statements furnished by ships and aircraft agents to the International Enterprise Singapore Board.

Prior to April 1987, external trade statistics were compiled by the Singapore Department of Statistics from the same sources.

Coverage

The "general" system for recording trade statistics is adopted in Singapore. Under this system, all goods imported into or exported from Singapore are included in the external trade statistics with the following major exceptions:

- (i) Transshipment cargo on through bills of lading or through air waybills;
- (ii) Fish and other marine produce landed by Singapore and Peninsular Malaysian registered vessels direct from sea;
- (iii) Goods imported and exported by, or on behalf of, diplomatic services and Armed Forces;

- (iv) Exposed cinematographic films imported or exported on rental basis;
- (v) Television news films, news or press materials;
- (vi) Ships and aircraft arriving for or departing after repairs;
- (vii) Goods temporarily taken in or out of the country to be returned after a specific purpose eg for exhibition;
- (viii) Personal and household effects accompanying passengers or crews;
- (ix) Samples and specimens for test or analysis; and unaccompanied personal effects and gifts not exceeding the value of \$400;
- (x) Gold bullion and gold coins; and
- (xi) Issued currency notes and coins.

Ships and aircraft are included if they are imported or exported as merchandise whether or not they arrive or depart under their own power.

Definitions

Imports: Refers to all goods brought into Singapore, except those specified as excluded under the **Coverage** section, irrespective of whether they are for consumption, for processing, for use in manufacturing, or for subsequent re-shipment to other countries.

13 EXTERNAL TRADE (cont'd)

Exports: Refers to all goods taken out of Singapore, except those specified as excluded under the **Coverage** section. It comprises domestic exports and re-exports.

Domestic Exports: Refers to exports of Singapore origin. It comprises (i) primary commodities grown or produced in Singapore and (ii) goods which have been transformed, that is, manufactured, assembled or processed in Singapore including those with imported materials or parts.

Re-exports: Refers to all goods which are exported from Singapore in the same form as they have been imported (including goods that have undergone minor processing, such as re-packing, splitting into lots, sorting or grading, marking and the like).

Trade at 1995 Prices: This is obtained by adjusting the recorded value of trade using import/export price indices with base year 1995. The series on trade at 1995 prices indicate the volume of trade after adjusting for the effect of price changes.

Valuation

Imports are valued at cif, that is, the value of goods at the frontier of the exporting

country plus the cost of insurance and freight to the registration area. Customs duties and other import charges payable in the registration area are not included in the value of imports.

Exports are valued at fob, that is, the value of goods to the purchaser abroad up to the point where the goods are deposited on board the outgoing vessel, aircraft or vehicle.

Classification

With effect from 1 January 1996, the trade classification adopted for documenting Singapore's external trade is the 1996 Singapore Trade Classification and Customs Duties, which is based on the Harmonised System. However, for the publication of external trade statistics, a classification based on the Standard International Trade Classification (Revision 3) is used. Imports are classified by the country of origin and exports by the country of destination.

Other References

Detailed monthly trade statistics are available in the "Singapore Trade Statistics, Imports and Exports".

13.1

EXTERNAL TRADE BY TYPE

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
At Current Prices							
Total Trade	216,074	361,455	382,218	353,627	382,431	470,001	425,718
Exports	101,880	176,272	185,613	183,763	194,290	237,826	218,026
Oil	17,371	16,728	16,219	13,639	15,335	23,061	22,473
Non-oil	84,509	159,544	169,393	170,124	178,954	214,765	195,553
Domestic Exports	66,031	103,589	107,535	105,918	116,325	135,938	118,444
Oil	17,202	16,551	15,912	13,473	15,143	22,867	21,716
Non-oil	48,829	87,038	91,624	92,445	101,182	113,072	96,728
Re-exports	35,848	72,683	78,077	77,846	77,965	101,888	99,582
Imports	114,195	185,183	196,605	169,864	188,142	232,175	207,692
Oil	16,050	17,313	18,635	13,647	17,075	27,987	26,119
Non-oil	98,145	167,870	177,971	156,217	171,066	204,188	181,573
At 1995 Prices							
Total Trade	195,989	377,767	418,972	390,941	419,710	486,135	435,535
Exports	89,460	184,521	205,923	205,353	216,463	252,809	231,109
Oil	12,194	14,402	14,524	15,649	14,179	13,286	14,169
Non-oil	77,266	170,118	191,399	189,704	202,285	239,522	216,940
Domestic Exports	54,705	107,754	119,806	120,637	130,360	143,689	127,840
Oil	12,060	14,237	14,248	15,459	14,018	13,182	13,694
Non-oil	42,645	93,516	105,558	105,178	116,342	130,507	114,146
Re-exports	34,754	76,767	86,116	84,716	86,103	109,120	103,269
Imports	106,529	193,247	213,049	185,589	203,247	233,327	204,426
Oil	12,535	15,794	16,539	15,725	14,479	14,814	15,549
Non-oil	93,994	177,453	196,510	169,864	188,767	218,513	188,877

Source : International Enterprise Singapore Board

Note : Figures from 1994 are slightly inflated due to improved coverage arising from the implementation of Goods and Services Tax from 1 April 1994.

13.2 TOTAL TRADE BY AREA/COUNTRY

		Million Dollars							
Area/Country		1991	1996	1997	1998	1999	2000	2001	
Total		216,074	361,455	382,218	353,627	382,431	470,001	425,718	
America		42,740	69,099	74,226	74,704	76,228	84,233	75,762	
Brazil		693	1,164	1,008	813	877	997	963	
Canada		1,473	1,396	1,595	1,708	1,445	1,728	1,467	
United States		38,133	62,703	67,135	67,759	69,259	75,907	67,671	
Asia		129,810	224,019	235,316	206,239	232,557	301,702	270,800	
Bahrain		406	230	245	261	313	366	392	
Bangladesh		721	989	897	1,204	1,189	1,505	1,637	
Brunei		1,277	2,702	2,337	1,321	1,079	1,294	1,060	
Cambodia		-	796	730	595	780	864	760	
China, People's Republic of		5,323	11,043	14,484	14,917	16,292	21,564	22,445	
Hong Kong, China		10,780	21,609	23,629	20,178	20,315	24,764	24,359	
India		2,450	4,354	4,846	5,085	5,496	6,661	6,876	
Iran (Islamic Republic of)		1,124	676	1,071	988	1,476	2,651	1,474	
Iraq		-	-	239	204	130	768	96	
Japan		33,206	48,071	47,688	40,524	45,745	57,904	45,506	
Korea, Republic of		5,649	11,715	11,539	9,379	13,091	16,788	15,234	
Kuwait		95	2,013	1,870	1,259	1,973	2,756	2,551	
Laos, People's Democratic Rep		-	63	52	35	71	53	48	
Malaysia		32,619	59,551	61,953	54,251	61,447	82,589	73,796	
Pakistan		640	480	495	588	655	725	742	
Philippines		1,651	5,197	7,335	8,122	9,769	11,632	10,089	
Saudi Arabia		6,647	7,577	8,529	6,132	6,082	8,017	8,118	
Sri Lanka		479	618	661	956	852	890	765	
Taiwan		8,302	14,291	16,575	14,445	17,018	24,492	20,050	
Thailand		10,029	20,123	18,613	15,156	17,425	20,130	18,729	
United Arab Emirates		3,256	4,168	3,823	3,476	3,536	4,392	4,495	
Vietnam, Socialist Republic of		-	3,035	3,281	3,240	3,421	5,024	5,296	
Europe		34,302	56,564	60,574	60,003	60,551	67,799	63,013	
France		4,123	8,717	9,080	8,629	8,106	7,458	6,570	
Germany, Federal Republic of ¹		7,912	12,173	12,101	11,406	11,633	14,681	14,552	
Italy		2,535	3,904	3,675	2,701	2,761	3,717	3,111	
Netherlands		3,624	5,860	6,253	7,954	8,191	9,346	9,273	
Sweden		982	1,282	1,529	1,154	1,182	1,059	1,068	
Switzerland		1,824	2,911	2,664	3,536	3,258	4,830	4,616	
United Kingdom		6,367	10,050	11,703	10,873	11,870	10,849	9,475	
Oceania		6,280	8,607	8,878	9,112	9,815	11,966	12,462	
Australia		4,666	6,811	6,997	7,442	7,837	9,500	9,964	
New Zealand		602	875	895	893	1,006	970	1,045	
Africa		2,943	3,167	3,223	3,569	3,281	4,301	3,681	

Source : International Enterprise Singapore Board

¹ Figures from Oct 1990 include the former German Democratic Republic.

13.3 IMPORTS BY AREA/COUNTRY

Million Dollars

Area/Country	1991	1996	1997	1998	1999	2000	2001
Total	114,195	185,183	196,605	169,864	188,142	232,175	207,692
America	20,144	33,209	36,297	34,130	34,797	37,492	36,866
Brazil	502	477	385	322	428	442	495
Canada	693	830	1,028	767	698	826	748
United States	18,030	30,256	33,017	31,253	32,044	34,718	34,137
Asia	73,779	117,093	124,271	105,062	120,522	155,969	134,188
Bahrain	349	190	201	207	273	320	354
Bangladesh	94	45	71	76	100	150	121
Brunei	321	290	271	293	261	456	325
Cambodia	-	67	92	100	198	129	98
China, People's Republic of	3,839	6,259	8,447	8,123	9,649	12,279	12,900
Hong Kong, China	3,434	5,922	5,780	4,759	5,400	6,059	4,986
India	723	1,427	1,548	1,012	1,252	1,857	2,003
Iran (Islamic Republic of)	869	511	873	836	1,232	2,279	1,022
Iraq	-	-	239	202	129	754	92
Japan	24,370	33,617	34,564	28,434	31,325	39,955	28,794
Korea, Republic of	3,241	6,362	6,056	5,087	7,063	8,309	6,843
Kuwait	8	1,911	1,769	1,151	1,861	2,614	2,432
Laos, People's Democratic Rep	-	5	1	1	14	2	1
Malaysia	17,382	27,808	29,548	26,252	29,283	39,399	35,975
Pakistan	188	100	88	64	99	77	88
Philippines	475	1,960	2,954	4,002	4,974	5,794	4,573
Saudi Arabia	5,864	7,042	7,974	5,493	5,536	7,478	7,558
Sri Lanka	80	72	69	80	65	96	58
Taiwan	4,681	7,421	8,208	6,517	7,540	10,296	8,831
Thailand	3,629	10,117	10,080	8,118	8,889	10,009	9,243
United Arab Emirates	2,220	2,898	2,430	1,763	2,063	2,596	2,440
Vietnam, Socialist Republic of	-	615	807	709	888	1,413	1,526
Europe	17,066	30,654	31,944	26,995	28,965	33,003	30,698
France	2,932	5,250	5,431	4,888	4,397	3,774	3,719
Germany, Federal Republic of ¹	3,650	6,760	6,723	5,843	6,111	7,304	6,861
Italy	1,572	3,188	2,903	1,840	2,026	2,869	2,350
Netherlands	1,004	1,787	1,695	1,623	1,654	2,294	2,047
Sweden	674	1,090	1,345	964	1,032	897	926
Switzerland	1,052	2,347	2,292	1,650	2,893	3,928	3,502
United Kingdom	3,286	5,067	5,513	4,636	4,623	4,722	4,373
Oceania	2,469	3,231	3,111	2,546	2,910	4,478	4,774
Australia	2,149	2,797	2,668	2,167	2,464	3,965	4,306
New Zealand	275	333	335	278	307	332	323
Africa	737	997	982	1,131	948	1,232	1,166

Source : International Enterprise Singapore Board

¹ Figures from Oct 1990 include the former German Democratic Republic.

13.4 EXPORTS BY AREA/COUNTRY

Area/Country	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	101,880	176,272	185,613	183,763	194,290	237,826	218,026
America	22,596	35,890	37,929	40,574	41,431	46,741	38,896
Brazil	191	688	623	491	450	555	468
Canada	780	565	568	941	747	902	719
United States	20,103	32,446	34,117	36,506	37,215	41,189	33,534
Asia	56,031	106,926	111,045	101,177	112,035	145,733	136,612
Bahrain	57	40	44	53	39	45	37
Bangladesh	627	944	825	1,129	1,089	1,355	1,516
Brunei	956	2,412	2,067	1,028	818	838	735
Cambodia	-	729	638	495	582	735	663
China, People's Republic of	1,485	4,784	6,038	6,794	6,643	9,285	9,545
Hong Kong, China	7,346	15,687	17,848	15,418	14,915	18,705	19,374
India	1,727	2,927	3,297	4,073	4,243	4,804	4,873
Iran (Islamic Republic of)	255	165	198	153	243	372	451
Iraq	-	-	-	2	1	14	3
Japan	8,836	14,455	13,125	12,090	14,421	17,949	16,712
Korea, Republic of	2,408	5,353	5,483	4,291	6,027	8,479	8,392
Kuwait	87	102	101	108	112	142	119
Laos, People's Democratic Rep	-	58	51	33	57	52	47
Malaysia	15,236	31,743	32,405	27,999	32,164	43,190	37,821
Pakistan	452	380	407	524	556	648	653
Philippines	1,176	3,238	4,382	4,120	4,795	5,838	5,516
Saudi Arabia	783	535	555	639	547	539	560
Sri Lanka	399	546	591	876	788	795	706
Taiwan	3,621	6,870	8,367	7,929	9,477	14,195	11,219
Thailand	6,401	10,006	8,532	7,037	8,536	10,122	9,487
United Arab Emirates	1,036	1,270	1,393	1,713	1,473	1,796	2,055
Vietnam, Socialist Republic of	-	2,420	2,473	2,531	2,532	3,611	3,769
Europe	17,236	25,910	28,630	33,008	31,586	34,796	32,315
France	1,190	3,467	3,648	3,741	3,709	3,684	2,851
Germany, Federal Republic of ¹	4,263	5,413	5,378	5,564	5,522	7,377	7,691
Italy	963	716	771	861	734	848	761
Netherlands	2,620	4,073	4,558	6,331	6,536	7,052	7,226
Sweden	308	192	184	190	151	162	143
Switzerland	772	564	373	1,886	365	903	1,115
United Kingdom	3,082	4,984	6,190	6,236	7,247	6,127	5,103
Oceania	3,811	5,376	5,767	6,566	6,905	7,488	7,688
Australia	2,517	4,014	4,328	5,275	5,373	5,535	5,659
New Zealand	326	542	559	615	699	638	722
Africa	2,206	2,170	2,241	2,438	2,333	3,069	2,515

Source : International Enterprise Singapore Board

¹ Figures from Oct 1990 include the former German Democratic Republic.

13.5 DOMESTIC EXPORTS BY AREA/COUNTRY

Million Dollars

Area/Country	1991	1996	1997	1998	1999	2000	2001
Total	66,031	103,589	107,535	105,918	116,325	135,938	118,444
America	18,072	27,907	29,193	30,408	31,518	33,185	26,014
Brazil	85	393	307	249	221	314	276
Canada	529	357	320	667	466	560	455
United States	16,455	25,689	26,849	27,778	28,574	29,039	22,031
Asia	31,872	53,835	55,036	50,196	57,028	73,525	66,482
Bahrain	34	17	23	25	20	20	19
Bangladesh	402	576	372	612	605	757	924
Brunei	275	388	405	285	252	265	244
Cambodia	-	264	275	205	328	465	385
China, People's Republic of	880	2,844	3,599	3,849	3,908	5,278	5,288
Hong Kong, China	4,803	9,538	10,536	8,719	8,836	10,501	10,346
India	1,012	1,194	1,379	1,954	1,970	2,097	1,994
Iran (Islamic Republic of)	120	58	47	48	143	299	291
Iraq	-	-	-	-	1	12	2
Japan	6,035	9,789	7,956	6,947	8,989	11,544	10,504
Korea, Republic of	1,471	3,019	2,767	2,020	2,934	4,279	3,977
Kuwait	60	56	51	53	65	99	67
Laos, People's Democratic Rep	-	4	4	10	23	22	18
Malaysia	6,819	13,299	13,997	12,641	14,031	18,291	15,323
Pakistan	182	158	169	235	239	287	303
Philippines	668	1,525	2,208	2,012	2,220	2,704	2,760
Saudi Arabia	443	197	226	232	243	235	244
Sri Lanka	155	214	254	331	352	333	322
Taiwan	2,241	3,710	4,223	3,784	4,956	7,716	5,586
Thailand	4,488	4,561	4,041	3,534	4,294	4,648	4,087
United Arab Emirates	421	416	386	581	452	541	680
Vietnam, Socialist Republic of	-	1,168	1,251	1,271	1,341	2,077	1,918
Europe	12,406	17,821	19,360	21,386	22,706	22,458	19,820
France	868	2,557	2,520	2,343	2,287	2,272	1,802
Germany, Federal Republic of ¹	3,142	3,456	3,579	3,805	3,853	4,763	4,942
Italy	713	459	463	493	510	523	455
Netherlands	1,921	3,168	3,149	4,431	4,825	4,777	4,016
Sweden	220	109	116	100	80	92	59
Switzerland	607	303	125	201	166	333	392
United Kingdom	2,351	3,601	4,557	4,660	5,935	4,200	3,454
Oceania	2,559	3,097	3,004	2,941	3,985	5,008	4,875
Australia	1,649	2,258	2,129	2,215	3,076	3,570	3,362
New Zealand	195	266	256	280	313	352	437
Africa	1,122	929	943	987	1,088	1,763	1,253

Source : International Enterprise Singapore Board

¹ Figures from Oct 1990 include the former German Democratic Republic.

13.6

IMPORTS BY COMMODITY SECTION

							Million Dollars	
Commodity Section	1991	1996	1997	1998	1999	2000	2001	
Total	114,195	185,183	196,605	169,864	188,142	232,175	207,692	
Food	4,645	5,160	5,223	4,515	4,984	5,122	5,245	
Fruits, nuts & vegetables	1,263	1,222	1,161	1,023	1,079	1,049	1,058	
Fish & crustaceans	783	901	926	694	802	953	847	
Spices, chocolate & coffee	544	495	613	546	625	608	652	
Meat & meat preparations	363	417	403	366	530	586	595	
Beverages & Tobacco	1,557	2,393	2,641	2,307	1,964	1,951	1,955	
Tobacco & tobacco manufactures	867	1,353	1,749	1,600	1,181	1,087	1,119	
Beverages	690	1,040	892	707	783	864	836	
Crude Materials	2,092	1,889	1,787	1,367	1,470	1,774	1,319	
Crude minerals (excl coal, petroleum & precious stones) & fertilizers	135	275	309	247	306	560	268	
Crude rubber (incl synthetic & reclaimed)	779	553	455	359	333	333	235	
Metalliferous ores & metal scrap	195	170	186	138	173	233	215	
Mineral Fuels	16,050	17,313	18,635	13,647	17,075	27,987	26,119	
Petroleum (includes crude & refined products)	16,040	17,304	18,625	13,643	17,070	27,985	26,115	
Animal & Vegetable Oils	849	517	514	524	504	383	334	
Fixed vegetables fats & oils (e.g. refined palm oil)	467	418	448	452	441	325	279	
Chemicals & Chemical Products	8,307	10,940	11,268	10,280	11,212	13,282	12,181	
Organic chemicals	1,471	2,181	2,483	2,242	2,283	2,610	2,820	
Plastics in primary forms	1,493	1,795	2,010	1,679	2,000	2,512	1,916	
Perfume, cosmetics & cleansing preparations	675	1,149	1,173	1,058	1,248	1,376	1,438	
Manufactured Goods	14,998	18,255	19,626	15,080	14,973	16,359	15,249	
Metal manufactures (incl hand tools & structural parts)	2,372	3,170	3,549	3,301	3,303	3,289	3,149	
Iron & steel	3,425	3,758	4,254	3,235	2,744	2,962	2,738	
Non-ferrous metals	1,756	2,736	3,499	2,538	2,409	2,855	3,023	
Non-metallic mineral manufactures	1,720	3,059	3,025	2,077	2,116	2,304	2,068	
Textile manufactures	3,285	2,701	2,555	1,751	1,894	2,200	1,823	

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Source : International Enterprise Singapore Board

13.6 IMPORTS BY COMMODITY SECTION (continued)

Commodity Section	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Machinery & Transport Equipment	53,433	107,209	113,163	102,692	113,365	141,068	123,933
Electronic valves ¹	9,031	29,637	31,064	30,734	37,461	52,729	41,523
Parts for office & DP machines ²	4,381	11,216	13,248	12,809	14,857	17,030	15,668
Data processing machines ³	3,295	9,602	10,679	9,019	8,916	11,000	9,722
Communication equipment ⁴	4,820	7,602	8,259	6,637	7,298	8,814	8,905
Electrical machinery ⁵	1,930	3,965	4,293	4,155	4,782	6,468	4,606
Electrical circuit apparatus ⁶	2,641	4,886	4,999	5,056	5,608	6,343	5,017
Miscellaneous Manufactured Articles	10,792	19,347	20,685	16,942	19,575	21,694	18,521
Disc media products & plastic articles	3,584	7,833	7,855	6,186	6,616	6,543	5,664
Scientific instruments & apparatus	1,818	3,684	4,566	3,877	4,852	5,862	4,224
Photographic supplies, watches & optical goods	2,353	3,423	3,545	3,058	3,546	4,110	3,887
Miscellaneous Transactions nec	1,473	2,160	3,063	2,509	3,019	2,554	2,836

Source : International Enterprise Singapore Board

- 1 Includes integrated circuits (ICs), semiconductors, CTV picture tubes, CR tubes for computer monitor, TV camera tubes, microwave tubes and parts for these products.
- 2 Includes ink cartridges, PCBAs (e.g. motherboards, sound cards, interface cards) and plastic casings and other parts and accessories for computers.
- 3 Includes computers, disk drives, tape drives, printers, computer monitors, computer keyboards and peripheral units and accessories.
- 4 Includes pagers, cellular/hand phones, TV cameras, video cameras and recorders, radar and navigational equipment, radio remote controls, satellite discs and parts for these products.
- 5 Includes signal generators, ion particle accelerator for semiconductor industry, electroplating or electrolysis machines, batteries, capacitors, spark plugs, light bulbs & tubes and parts for these products.
- 6 Includes blank printed circuit boards, circuit breakers, fuses, switches, connectors, switchboards and control panels and parts for these products.

13.7

EXPORTS BY COMMODITY SECTION

Million Dollars

Commodity Section	1991	1996	1997	1998	1999	2000	2001
Total	101,880	176,272	185,613	183,763	194,290	237,826	218,026
Food	3,033	3,192	3,220	3,018	2,985	3,029	2,774
Spices, chocolate & coffee	809	818	1,010	1,080	1,039	1,019	810
Fish & crustaceans	857	761	731	658	659	777	669
Fruits, nuts & vegetables	436	554	488	397	403	324	283
Beverages & Tobacco	1,841	2,631	2,766	2,677	1,949	1,904	1,835
Tobacco & tobacco manufactures	879	1,807	2,002	2,042	1,287	1,221	1,190
Beverages	962	824	764	635	662	683	645
Crude Materials	2,522	1,987	1,797	1,756	1,562	1,676	1,574
Metalliferous ores & metal scrap	307	365	401	416	375	502	541
Crude rubber (incl synthetic & reclaimed)	1,110	777	568	445	408	397	301
Crude vegetable & animal materials (incl seeds & orchid)	311	275	250	229	211	217	216
Mineral Fuels	17,371	16,728	16,219	13,639	15,335	23,061	22,473
Petroleum (includes crude & refined products)	17,191	16,453	15,898	13,350	15,032	22,613	22,002
Animal & Vegetable Oils	722	520	508	491	483	377	341
Fixed vegetables fats & oils (e.g. refined palm oil)	305	353	369	346	336	244	214
Chemicals & Chemical Products	6,680	9,885	11,136	11,832	15,326	16,488	17,632
Organic chemicals	2,276	3,199	3,853	4,008	5,681	5,258	6,581
Plastics in primary forms	1,703	2,059	2,427	2,557	2,904	3,821	3,646
Medical & pharmaceutical products	381	869	916	990	1,995	1,745	2,015
Manufactured Goods	7,320	10,072	10,402	8,327	8,445	9,017	8,430
Non-ferrous metals	1,119	2,401	2,666	1,874	2,000	2,097	1,895
Metal manufactures (incl hand tools & structural parts)	1,311	1,852	1,982	1,789	1,699	1,780	1,757
Textile manufactures	1,883	1,900	1,844	1,439	1,445	1,565	1,308
Iron & steel	891	1,168	1,230	929	848	953	967
Non-metallic mineral manufactures	674	1,113	1,104	697	709	858	828

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Source : International Enterprise Singapore Board

13.7 EXPORTS BY COMMODITY SECTION (continued)

Million Dollars							
Commodity Section	1991	1996	1997	1998	1999	2000	2001
Machinery & Transport Equipment	51,697	116,262	122,474	122,116	128,807	160,402	140,620
Electronic valves ¹	7,925	27,849	30,472	32,520	39,029	59,430	48,842
Data processing machines ²	13,031	32,549	34,496	34,060	33,531	33,527	29,611
Parts for office & DP machines ³	3,998	13,334	15,307	16,458	17,165	19,430	18,476
Communication equipment ⁴	4,481	8,891	9,138	8,043	8,742	10,404	9,305
Electrical circuit apparatus ⁵	1,547	3,483	3,724	3,931	4,823	5,629	4,969
Electrical machinery ⁶	1,387	3,678	3,962	4,027	4,141	5,846	5,127
Miscellaneous Manufactured Articles	9,229	13,103	14,260	15,024	16,414	19,382	19,040
Disc media products & plastic articles	2,757	5,187	5,551	6,274	6,847	8,338	8,073
Photographic supplies, watches & optical goods	1,485	2,979	3,199	3,014	3,136	3,682	3,561
Scientific instruments & apparatus	1,308	2,167	2,476	2,775	3,147	3,567	3,915
Miscellaneous Transactions nec	1,465	1,892	2,831	4,883	2,984	2,491	3,308

Source : International Enterprise Singapore Board

1 Includes integrated circuits (ICs), semiconductors, CTV picture tubes, CR tubes for computer monitor, TV camera tubes, microwave tubes, and parts for these products.

2 Includes computers, disk drives, tape drives, printers, computer monitors, computer keyboards and peripheral units and accessories.

3 Includes ink cartridges, PCBAs (e.g. motherboards, sound cards, interface cards) and plastic casings and other parts and accessories for computers.

4 Includes pagers, cellular/hand phones, TV cameras, video cameras and recorders, radar and navigational equipment, radio remote controls, satellite discs and parts for these products.

5 Includes blank printed circuit boards, circuit breakers, fuses, switches, connectors, switchboards and control panels and parts for these products.

6 Includes signal generators, ion particle accelerator for semiconductor industry, electroplating or electrolysis machines, batteries, capacitors, spark plugs, light bulbs & tubes and parts for these products.

13.8

DOMESTIC EXPORTS BY COMMODITY SECTION

Commodity Section	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	66,031	103,589	107,535	105,918	116,325	135,938	118,444
Food	1,125	1,259	1,275	1,221	1,237	1,345	1,387
Spices, chocolate & coffee	252	320	352	381	382	412	407
Fish & crustaceans	266	271	267	242	253	304	274
Cereals & cereal preparations	152	168	159	150	150	148	162
Beverages & Tobacco	398	493	407	393	263	260	262
Tobacco & tobacco manufactures	215	327	283	294	182	171	167
Beverages	183	166	125	99	81	89	95
Crude Materials	449	495	561	549	498	650	580
Metalliferous ores & metal scrap	247	295	355	375	319	439	414
Crude vegetable & animal materials (incl seeds & orchid)	91	83	74	74	84	85	70
Pulp & waste paper	22	42	40	42	48	72	55
Mineral Fuels	17,202	16,551	15,912	13,473	15,143	22,867	21,716
Petroleum (includes crude & refined products)	17,046	16,280	15,593	13,187	14,840	22,419	21,247
Animal & Vegetable Oils	556	299	316	333	346	282	267
Fixed vegetables fats & oils (e.g. refined palm oil)	203	193	217	233	237	180	176
Chemicals & Chemical Products	4,208	5,626	6,650	7,163	10,393	10,718	12,059
Organic chemicals	1,594	2,009	2,585	2,841	4,621	3,948	5,175
Plastics in primary forms	1,145	1,374	1,711	1,933	2,207	2,939	2,898
Medical & pharmaceutical products	253	298	282	383	1,291	971	1,214
Manufactured Goods	2,247	2,844	2,935	2,565	2,696	3,077	2,867
Metal manufactures (incl hand tools & structural parts)	805	949	981	871	878	988	882
Textile manufactures	289	351	372	339	421	506	448
Paper & paperboard	369	463	428	386	412	414	415
Non-ferrous metals	169	262	275	235	251	302	256
Non-metallic mineral manufactures	171	346	384	261	279	291	264

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Source : International Enterprise Singapore Board

13.8 DOMESTIC EXPORTS BY COMMODITY SECTION (continued)

Million Dollars

Commodity Section	1991	1996	1997	1998	1999	2000	2001
Machinery & Transport Equipment	34,477	70,288	72,845	72,428	76,363	85,851	68,674
Electronic valves ¹	5,624	13,961	15,705	15,963	19,059	26,533	17,923
Data processing machines ²	11,590	26,435	27,248	27,229	27,414	24,867	21,573
Parts for office & DP machines ³	3,172	10,877	12,095	12,586	13,085	13,417	12,041
Communication equipment ⁴	2,894	4,587	4,472	3,894	4,395	5,343	3,933
Electrical circuit apparatus ⁵	1,065	2,211	2,337	2,388	2,783	2,974	2,452
Electrical machinery ⁶	921	2,009	2,080	1,988	1,738	2,432	2,103
Miscellaneous Manufactured Articles	5,096	5,176	6,017	7,005	8,522	10,068	9,840
Disc media products & plastic articles	1,770	2,527	3,168	3,795	5,002	6,074	5,734
Scientific instruments & apparatus	736	1,155	1,301	1,659	1,877	2,185	2,421
Miscellaneous Transactions nec	273	558	617	787	865	819	792

Source : International Enterprise Singapore Board

- 1 Includes integrated circuits (ICs), semiconductors, CTV picture tubes, CR tubes for computer monitor, TV camera tubes, microwave tubes, and parts for these products.
- 2 Includes computers, disk drives, tape drives, printers, computer monitors, computer keyboards and peripheral units and accessories.
- 3 Includes ink cartridges, PCBAs (e.g. motherboards, sound cards, interface cards) and plastic casings and other parts and accessories for computers.
- 4 Includes pagers, cellular/hand phones, TV cameras, video cameras and recorders, radar and navigational equipment, radio remote controls, satellite discs and parts for these products.
- 5 Includes blank printed circuit boards, circuit breakers, fuses, switches, connectors, switchboards and control panels and parts for these products.
- 6 Includes signal generators, ion particle accelerator for semiconductor industry, electroplating or electrolysis machines, batteries, capacitors, spark plugs, light bulbs & tubes and parts for these products.

13.9 IMPORTS OF SPECIFIC COMMODITIES

Million Dollars

Commodity	1991	1996	1997	1998	1999	2000	2001
Meat	363	417	403	366	530	586	595
Rice	139	195	225	203	250	227	212
Unmilled Cereals	98	56	59	44	46	45	54
Fruits & Nuts	562	543	529	473	504	494	467
Spices	194	196	273	248	341	320	348
Animal Feed	92	66	51	44	57	57	66
Crude Rubber	724	486	388	293	260	247	159
Sawn Timber	311	273	272	177	172	164	137
Crude Petroleum	11,465	11,256	11,925	8,500	9,029	15,078	13,589
Petroleum Products	4,575	6,048	6,700	5,144	8,041	12,907	12,526
Fixed Vegetables Oils	467	418	448	452	441	325	279
Medicinal Products	379	964	1,072	990	1,256	1,238	1,374
Paper & Paperboard	911	935	835	691	784	933	782
Textile Yarn & Thread	357	286	293	213	197	236	165
Woven Textile Fabrics	2,316	1,648	1,479	1,028	1,099	1,284	1,053
Iron & Steel Plates, Sheets, Bars Shapes, etc	1,856	2,331	2,608	1,895	1,608	1,676	1,460
Iron & Steel Pipes & Fittings	1,074	996	1,156	1,053	736	763	914
Generators	6,258	8,630	8,864	8,665	9,455	10,915	9,255
Industrial Machinery	2,809	4,661	4,798	4,407	4,370	4,982	4,666
Telecommunications Apparatus	7,576	10,152	10,461	8,072	8,906	10,908	10,704
Office Machines	8,134	21,594	24,750	22,416	24,382	28,805	26,083
Motor Vehicles	2,286	3,589	3,587	2,438	2,840	4,424	4,017
Ships, Boats & Oil Rigs	1,490	3,622	3,294	3,038	2,512	1,198	358
Clothing	1,823	2,442	2,682	2,355	2,797	3,249	3,039
Scientific & Optical Instruments	3,117	5,563	6,461	5,544	7,082	8,633	6,912
Watches & Clocks	1,053	1,545	1,650	1,391	1,316	1,340	1,199
Toys & Games	448	694	648	406	624	773	628

Source : International Enterprise Singapore Board

13.10 EXPORTS OF SPECIFIC COMMODITIES

Million Dollars

Commodity	1991	1996	1997	1998	1999	2000	2001
Spices	224	269	444	516	537	501	314
Coffee	130	194	222	177	151	168	177
Animal Feed	80	91	86	71	79	84	82
Crude Rubber	1,089	744	531	406	371	360	263
Sawn Timber	413	191	212	167	166	167	148
Petroleum Products	14,179	13,575	12,720	10,438	11,643	17,054	16,044
Fixed Vegetable Oils	305	353	369	346	337	244	215
Medicinal Products	381	869	916	990	1,995	1,745	2,015
Manufactured Fertilizers	48	21	23	21	25	10	10
Crude Vegetable Materials	254	262	242	220	203	204	190
Wood Products excluding Furniture	513	269	278	252	206	204	159
Textile Yarn & Thread	297	350	354	291	358	423	347
Woven Textile Fabrics	1,376	1,214	1,133	869	798	857	716
Iron & Steel Plates, Sheets, Bars Shapes, etc	414	629	628	416	451	484	450
Iron & Steel Pipes & Fittings	404	435	513	444	326	386	449
Generators	3,372	5,727	5,984	6,001	6,878	8,195	7,317
Office Machines	17,652	46,637	50,680	51,303	51,325	53,709	48,769
Industrial Machinery	1,637	2,831	2,916	3,034	2,754	3,317	3,618
Telecommunications Apparatus	9,834	14,117	13,062	11,199	11,175	13,179	12,055
Household Equipment	628	665	691	658	606	629	621
Motor Vehicles	977	1,754	1,883	1,461	1,407	1,534	1,381
Ships, Boats & Oil Rigs	558	945	939	1,519	817	1,237	1,152
Furniture	364	272	257	171	143	174	151
Clothing	3,009	1,972	2,215	2,387	2,716	3,150	2,923
Scientific & Optical Instruments	2,178	3,758	4,165	4,570	5,256	6,195	6,527
Watches & Clocks	616	1,388	1,510	1,218	1,027	1,054	950
Printed Matters	603	839	844	815	920	1,010	1,243

Source : International Enterprise Singapore Board

14 TRANSPORT AND COMMUNICATIONS

TRANSPORT AND COMMUNICATIONS

14.1 Vessels Entered and Cleared

Data on the movement of vessels are compiled from declarations submitted to the Port Master by all merchant ships entering or leaving Singapore waters. The data are given in terms of number and gross registered tonnage.

14.2 Sea Cargo Handled

The volume of cargo handled refers to those handled by vessels of all tonnage at all parts of Singapore including piers, wharves and anchorages. The data include cargo but exclude ship's stores and mineral oil supplied as bunker fuel to vessels.

14.3 Civil Air Traffic

The Civil Aviation Authority (CAA) is responsible for operating the Singapore Changi Airport and Seletar Aerodrome. It also provides air traffic services, legislation and promotes the development of air transport and aerospace industries.

14.4 Road Transport

14.4.1 All vehicles must be registered with the Singapore Licensing Division of the Land Transport Authority. 14.4.2 Singapore must be registered with the Land Transport Authority. 14.4.3 Singapore must be registered with the Land Transport Authority.

Monthly statistics on passengers, airfreight tonnage, aircraft landings and mail

Data on road casualties are compiled from reports made to the police on all traffic accidents occurring on roads.

14 TRANSPORT AND COMMUNICATIONS

Vessels Entered and Cleared

Data on the movement of vessels are compiled from declarations submitted to the Port Master by all merchant ships entering or leaving Singapore waters. The data are given in terms of number and gross registered tonnage.

Sea Cargo Handled

The volume of cargo handled refers to those handled by vessels of all tonnages at all parts of Singapore including private wharves and anchorages. The data include transshipment cargo but exclude ship's stores and mineral oil supplied as bunker fuel to vessels.

Civil Air Traffic

The Civil Aviation Authority of Singapore (CAAS) is responsible for operating the Singapore Changi Airport and Seletar Aerodrome. It also provides air traffic services, regulates and promotes the development of air transport and aerospace industries, as well as compiles and collates statistics on passengers, airfreight, airmail and aircraft traffic passing through Changi Airport and Seletar Aerodrome.

Data on passenger arrivals and departures are obtained from manifests submitted by airlines through their handling agents. Statistics on aircraft movements are compiled by the Authority's Aeronautical Information Services Unit and Corporate Affairs Division.

Monthly statistics on passengers, airfreight tonnage, aircraft landings and mail

carried through Changi Airport and Seletar Aerodrome are available in the "Air Transport Statistics" published by the CAAS.

Roads

Data on public roads refer to the length of roads in kilometres and are classified into expressways, major arterial roads, collector roads and local roads.

Mass Rapid Transit (MRT)

Singapore MRT Ltd is the operator of the MRT system in Singapore. It provides passenger service along major high-density travel corridors in Singapore to satisfy the needs of the travelling public. Since operation in 1987, the MRT system has been extended to a route length of 85 km and a total of 50 stations. Today, over a million passenger trips are made on the MRT daily.

Vehicles Registered

All vehicles to be kept or used in Singapore must be registered with the Vehicle and Transit Licensing Division of the Land Transport Authority.

Road Casualties

Data on road casualties are compiled from reports made to the police on all traffic accidents occurring on roads.

14.1 SEA CARGO AND SHIPPING STATISTICS

	1991	1996	1997	1998	1999	2000	2001
Vessel Arrivals (No)	70,345	117,723	130,333	140,922	141,523	145,383	146,265
Shipping Tonnage ('000 GT)	536,618	768,521	808,305	857,655	877,127	910,180	960,093
Total Cargo ('000 tonnes)	206,429	314,164	327,507	312,322	325,902	325,591	313,487
General	108,184	175,083	185,559	172,968	188,553	199,577	186,076
Bulk	98,245	139,081	141,948	139,354	137,349	126,014	127,411
Total Container Throughput ('000 TEUs)	6,354	12,944	14,136	15,136	15,945	17,087	15,571
Bunker Sales ('000 tonnes)	-	16,938	16,941	18,064	18,891	18,651	20,352
Singapore Ship Registry (End of Period)							
Number	1,823	3,157	3,380	3,412	3,360	3,335	3,353
'000 GT	9,559	18,239	20,774	22,025	23,748	23,043	23,167

Source : Maritime and Port Authority of Singapore

Notes : GT = Gross Tonnes

TEU = Twenty-Foot Equivalent Unit

14.2 CIVIL AIRCRAFT LANDINGS, PASSENGERS AND PARCEL MAIL

	1991	1996	1997	1998	1999	2000	2001
Aircraft Landings (No)	54,339	83,345	86,276	82,590	82,970	86,853	89,706
Passengers ('000)							
Arriving	7,585	11,587	11,916	11,292	12,276	13,546	13,333
Departing	7,480	11,542	11,883	11,231	12,213	13,419	13,209
In Transit	1,221	1,384	1,375	1,281	1,575	1,654	1,552
Parcel Mail (Tonnes)							
In-coming	5,034	10,572	10,813	10,580	10,886	10,847	10,765
Out-going	4,679	10,380	10,977	11,354	11,695	12,074	12,103

Source : Civil Aviation Authority of Singapore

Note : Figures refer to Changi Airport only.

14.3

AIR CARGO DISCHARGED BY REGION AND SELECTED
COUNTRY OF ORIGIN

Region/Country	Tonnes						
	1991	1996	1997	1998	1999	2000	2001
Total	342,261	622,019	696,778	651,568	756,771	848,269	780,638
South East Asia	103,169	154,068	168,936	167,875	184,006	197,822	176,428
Malaysia	21,640	21,882	26,945	28,675	32,614	38,203	30,932
Philippines	3,973	11,772	16,500	22,837	25,433	25,851	22,565
Thailand	26,952	47,096	51,049	41,902	47,463	47,136	44,569
North East Asia	108,461	196,745	229,292	216,981	255,523	290,615	244,423
Hong Kong	18,633	40,720	46,764	40,311	51,346	58,804	53,358
Japan	48,170	58,375	71,259	63,021	69,237	81,531	60,069
Taiwan	22,210	50,715	54,607	54,880	65,272	75,405	60,117
South Asia	19,194	37,666	38,684	34,772	42,037	49,595	49,200
India	10,994	24,305	22,394	20,976	27,995	32,589	33,156
West Asia	1,815	8,259	9,869	8,362	9,893	14,535	10,440
Oceania	45,526	69,155	72,437	74,365	96,508	105,235	111,535
Australia	41,698	61,271	64,314	64,412	83,178	91,946	97,437
New Zealand	3,435	7,570	7,808	9,659	12,925	13,066	13,812
Europe	49,284	102,118	116,040	109,179	124,438	147,601	149,715
France	2,607	8,355	14,455	14,269	18,077	20,379	22,546
Germany	4,936	12,297	15,413	18,243	18,282	22,386	24,893
Netherlands	10,152	20,255	16,824	15,893	18,310	26,588	29,846
Scandinavia	6,318	10,471	12,335	13,012	14,424	17,305	20,984
Switzerland	4,812	10,380	14,549	11,393	8,762	7,339	7,391
United Kingdom	8,165	15,454	16,295	17,420	20,376	22,866	23,574
North America	13,793	49,779	57,087	35,994	40,437	38,937	34,640
USA	12,012	48,667	56,275	35,451	40,071	38,519	34,135
Other Regions	1,019	4,229	4,433	4,040	3,929	3,929	4,257

Source : Civil Aviation Authority of Singapore

Note : Data refer to Changi Airport only. Data exclude passenger baggage, diplomatic cargo and aircraft stores.

14.4

AIR CARGO LOADED BY REGION AND SELECTED
COUNTRY OF DESTINATION

Region/Country								Tonnes	
	1991	1996	1997	1998	1999	2000	2001		
Total	300,948	568,438	639,570	632,093	743,622	834,220	726,424		
South East Asia	71,229	144,984	145,204	113,078	132,550	157,223	142,399		
Malaysia	21,316	33,002	31,264	25,842	28,660	38,504	35,987		
Philippines	5,502	19,043	24,790	25,983	27,239	26,915	21,297		
Thailand	19,384	37,207	38,125	30,661	36,866	40,053	33,330		
North East Asia	103,732	206,249	233,576	231,638	279,717	325,651	275,906		
Hong Kong	27,296	47,708	56,109	54,633	56,713	65,607	54,331		
Japan	48,331	77,706	83,056	79,113	94,971	109,307	95,321		
Taiwan	9,567	35,251	45,671	45,968	59,821	68,225	56,120		
South Asia	12,555	28,861	31,856	38,561	42,731	45,575	41,352		
India	6,280	19,069	20,815	24,694	26,523	30,086	27,129		
West Asia	6,371	11,527	13,632	16,838	20,671	26,067	21,114		
Oceania	26,133	45,662	54,815	58,958	69,151	67,763	63,123		
Australia	21,068	37,636	46,006	49,730	55,978	56,409	52,897		
New Zealand	4,024	7,167	7,784	8,561	11,546	10,783	9,764		
Europe	60,726	85,833	101,670	114,016	131,619	138,378	122,839		
France	2,481	6,195	11,933	15,680	20,149	22,410	20,122		
Germany	5,519	11,525	14,230	19,874	22,137	22,610	18,320		
Netherlands	10,763	15,496	15,127	16,072	19,141	20,692	20,039		
Scandinavia	4,092	5,537	6,241	6,496	6,949	7,781	8,173		
Switzerland	3,643	7,896	8,843	8,213	5,299	4,112	4,455		
United Kingdom	11,611	16,095	17,346	20,159	25,913	28,084	26,000		
North America	16,749	39,667	52,477	52,418	60,518	66,748	54,302		
USA	15,086	39,140	51,896	51,529	59,432	65,625	53,195		
Other Regions	3,453	5,655	6,340	6,586	6,665	6,815	5,389		

Source : Civil Aviation Authority of Singapore

Notes : Data refer to Changi Airport only. Data exclude passenger baggage, diplomatic cargo and aircraft stores.

14.5 AIR PASSENGER ARRIVALS BY REGION AND SELECTED COUNTRY OF EMBARKATION

								Thousand
Region/Country	1991	1996	1997	1998	1999	2000	2001	
Total	7,585	11,587	11,916	11,292	12,276	13,546	13,333	
South East Asia	3,661	5,211	5,235	4,602	4,907	5,274	5,241	
Brunei	116	140	139	132	120	120	132	
Indonesia	957	1,583	1,610	1,181	1,346	1,467	1,472	
Malaysia	1,623	1,854	1,820	1,601	1,545	1,677	1,587	
Philippines	161	279	326	306	347	370	348	
Thailand	782	1,134	1,121	1,182	1,316	1,384	1,430	
Vietnam	na	127	130	131	154	170	181	
Cambodia	na	44	36	30	38	41	46	
Myanmar	7	45	49	37	41	45	45	
Laos	na	na	6	1	-	-	-	
North East Asia	1,728	2,956	2,947	2,745	2,989	3,352	3,182	
Hong Kong	571	887	816	793	826	974	934	
Japan	758	1,104	1,086	930	1,008	1,073	945	
Taiwan	263	445	456	436	419	412	357	
South Asia	391	644	755	768	851	961	905	
India	227	383	458	475	546	642	600	
Pakistan	23	43	44	42	42	46	36	
Sri Lanka	83	96	107	109	123	123	114	
West Asia	74	128	133	143	156	169	173	
Oceania	750	1,087	1,172	1,300	1,489	1,712	1,801	
Australia	640	933	1,010	1,113	1,269	1,475	1,574	
New Zealand	92	142	150	176	208	225	216	
Europe	775	1,172	1,259	1,330	1,454	1,591	1,596	
France	43	84	109	120	145	144	152	
Germany	104	223	228	270	293	303	330	
Netherlands	86	119	116	117	121	132	132	
Scandinavia	48	50	58	64	59	75	63	
Switzerland	58	112	113	102	104	111	106	
United Kingdom	301	426	472	504	578	659	665	
North America	154	264	287	276	282	327	293	
USA	132	247	269	255	260	307	273	
Other Regions	51	125	127	129	148	160	143	

Source : Civil Aviation Authority of Singapore

Notes : Data refer to Changi Airport only.

Data exclude transit passengers who continued their journey on the same flight.

14.6

AIR PASSENGER DEPARTURES BY REGION AND SELECTED COUNTRY OF DISEMBARKATION

Region/Country	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	7,480	11,542	11,883	11,231	12,213	13,419	13,209
South East Asia	3,535	5,113	5,153	4,397	4,716	5,077	5,102
Brunei	111	144	139	125	116	117	126
Indonesia	1,006	1,618	1,678	1,207	1,378	1,493	1,525
Malaysia	1,471	1,743	1,723	1,457	1,451	1,579	1,514
Philippines	145	278	319	316	352	376	350
Thailand	778	1,108	1,079	1,095	1,197	1,262	1,319
Vietnam	na	132	132	130	147	167	177
Cambodia	na	42	36	28	35	39	46
Myanmar	7	44	44	38	40	44	44
Laos	na	na	6	1	-	-	-
North East Asia	1,729	2,960	2,962	2,792	3,003	3,354	3,177
Hong Kong	549	881	782	824	845	944	925
Japan	778	1,101	1,103	957	1,020	1,063	931
Taiwan	268	474	508	462	433	460	361
South Asia	370	602	697	765	827	937	874
India	216	359	419	457	524	617	581
Pakistan	24	41	38	34	36	40	34
Sri Lanka	72	92	101	112	122	129	116
West Asia	76	118	120	142	151	154	162
Oceania	809	1,164	1,240	1,376	1,573	1,765	1,858
Australia	696	999	1,072	1,183	1,342	1,524	1,624
New Zealand	96	153	156	182	220	230	224
Europe	755	1,151	1,259	1,321	1,462	1,599	1,578
France	41	82	111	123	150	148	161
Germany	104	221	229	270	298	305	329
Netherlands	77	114	117	123	127	132	130
Scandinavia	51	53	61	68	70	92	72
Switzerland	60	116	120	106	108	116	113
United Kingdom	279	409	447	473	549	629	623
North America	152	308	327	308	332	373	315
USA	130	290	307	285	306	349	293
Other Regions	53	126	126	130	150	160	144

Source : Civil Aviation Authority of Singapore

Notes : Data refer to Changi Airport only.

Data exclude transit passengers who continued their journey on the same flight.

14.7 PUBLIC ROADS (End of Period)

	1991	1996	1997	1998	1999	2000	2001	Kilometres
Paved Roads	2,840	2,988	3,017	3,038	3,066	3,100	3,119	
Expressways	108	139	148	150	150	150	150	
Major Arterial Roads	539	566	559	560	569	571	573	
Collector Roads	282	330	340	345	358	375	387	
Local Roads Improved	1,911	1,953	1,970	1,983	1,989	2,004	2,009	

Source : Land Transport Authority (with effect from 1995)

14.8 MOTOR VEHICLE POPULATION (End of Period)

	1991	1996	1997	1998	1999	2000	2001	Number
Total	559,304	668,304	683,204	681,081	688,811	692,807	708,370	
Cars ¹	283,746	362,142	373,345	370,804	378,024	386,780	398,787	
Rental Cars	3,665	5,451	6,152	6,536	7,112	8,438	8,857	
Taxis	12,705	16,857	16,933	17,886	18,029	18,327	18,798	
Buses	9,478	10,998	11,240	11,429	11,827	12,569	12,902	
Motor Cycles & Scooters	122,410	132,344	132,629	133,375	134,346	131,937	131,869	
Goods & Other Vehicles	127,300	140,512	142,905	141,051	139,473	134,756	137,157	

Source : Land Transport Authority

¹ Include private and company cars.

14.9 CAR POPULATION BY CC RATING

(End of Period)

CC Rating	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	285,298	365,558	377,365	375,217	382,941	392,961	405,354
1,000 cc & below	43,986	51,094	53,094	52,183	48,552	35,724	30,680
1,001 to 1,600 cc	184,236	214,814	217,830	214,321	220,274	232,638	244,609
1,601 to 2,000 cc	44,223	73,018	77,343	78,775	81,333	87,262	89,052
2,001 to 3,000 cc	11,352	20,815	22,856	23,816	26,660	30,961	34,825
3,001 cc & above	1,501	5,817	6,242	6,122	6,122	6,376	6,188

Source : Land Transport Authority

Notes : Figures refer to private cars, company cars and rental cars only.

They do not include taxis and tax exempted cars.

14.10 AGE DISTRIBUTION OF CARS

(End of Period)

Age (Years)	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	285,298	365,558	377,365	375,217	382,941	392,961	405,354
Below 1	28,706	28,785	25,064	27,898	38,474	58,097	67,134
1 - below 2	31,904	32,672	28,774	24,976	27,883	38,441	58,000
2 - below 3	35,451	33,859	32,594	28,683	24,844	27,856	38,210
3 - below 4	26,507	39,558	33,682	31,984	28,569	24,160	27,614
4 - below 5	12,740	29,471	39,518	32,575	31,136	28,211	19,420
5 - below 6	8,358	28,695	29,390	39,294	31,031	29,790	25,157
6 - below 7	13,524	31,734	28,623	29,100	38,988	29,543	25,574
7 - below 8	22,009	34,432	31,110	28,003	28,570	38,186	23,843
8 - below 9	29,557	25,509	34,214	30,771	27,796	28,030	34,102
9 - below 10	24,117	11,049	23,253	29,976	26,914	25,588	24,297
10 - below 11	8,344	2,256	2,343	2,638	8,653	8,378	14,480
11 - below 12	11,750	2,276	2,245	2,324	2,644	8,675	8,238
12 - below 13	9,897	4,976	2,263	2,232	2,307	2,634	8,521
13 - below 14	6,196	8,283	4,924	2,218	2,213	2,287	2,556
14 - below 15	4,256	11,460	8,060	4,637	2,097	2,151	2,135
15 & above	11,982	40,543	51,308	57,908	60,822	40,934	26,073

Source : Land Transport Authority

Notes : Figures refer to private cars, company cars and rental cars only.

They do not include taxis and tax exempted cars.

14.11 ROAD CASUALTIES

	1991	1996	1997	1998	1999	2000	2001	Persons
Total ¹								
Killed	243	225	257	221	198	214	197	
Injured	6,591	7,628	7,341	7,448	8,933	9,599	9,303	
Pedestrians								
Killed	70	70	78	67	56	60	54	
Injured	912	862	839	804	852	870	870	
Pedal Cyclists, Trishaw Riders & Passengers								
Killed	18	15	16	15	19	15	12	
Injured	258	262	262	252	330	319	343	
Motor Cyclists & Pillion Riders								
Killed	112	94	111	87	85	99	89	
Injured	3,105	3,825	3,703	3,641	4,382	5,031	4,811	
Motor Vehicle Drivers & Passengers ²								
Killed	42	46	52	52	38	38	38	
Injured	2,292	2,658	2,518	2,710	3,339	3,336	3,236	

Source : Traffic Police Department

¹ Include other categories of road users not shown in table.² Figures refer to drivers and passengers of motor cars, buses, light goods and heavy goods vehicles only.

14.12 VEHICLES INVOLVED IN ROAD ACCIDENTS BY TYPE OF VEHICLE

	1991	1996	1997	1998	1999	2000	2001	Number
Total	8,666	9,819	9,652	9,781	11,548	12,549	12,383	
Pedal Cycles	285	280	283	267	345	338	365	
Motor Cycles & Scooters	2,922	3,440	3,374	3,351	3,976	4,540	4,436	
Motor Cars & Station Wagons	3,524	3,968	3,992	4,103	4,905	5,252	5,309	
Light Goods Vehicles	670	670	634	608	686	697	609	
Heavy Goods Vehicles ¹	755	952	916	967	1,109	1,137	1,076	
Buses	412	425	380	403	448	492	484	
Others	98	84	73	82	79	93	104	

Source : Traffic Police Department

Note : Figures refer to vehicles involved in fatal and injury accidents.

¹ Cover lorries, tippers/trucks and trailers only.

14.13 MASS RAPID TRANSIT OPERATION AND RIDERSHIP

	1991	1996	1997	1998	1999	2000	2001
Total Train Km Operated ('000)	8,946	11,746	12,212	12,238	12,276	12,506	12,951
Total Number of Passengers ('000)	203,818	312,429	334,016	346,543	361,318	383,354	390,930
Average Number of Weekday Passengers (No)	563,800	877,000	945,400	988,100	1,028,300	1,092,000	1,127,000
Average Weekday Traffic of Selected Stations (No)							
Orchard Station	63,458	87,800	91,300	88,500	87,600	92,850	93,500
Raffles Place Station	58,521	105,700	108,600	104,600	103,300	111,550	113,400
City Hall Station	77,530	88,100	94,100	94,800	93,200	100,420	105,000
Ang Mo Kio	63,410	83,900	89,400	90,400	90,400	93,940	95,300
Tanjong Pagar	46,053	70,400	71,000	70,800	69,500	71,980	74,000

Source : Singapore MRT Ltd

14.14 POSTAL ARTICLES HANDLED AND TELECOMMUNICATIONS

	1991	1996	1997	1998	1999	2000	2001
Postal Articles Handled (million)	931	1,344	1,454	1,476	1,487	1,525	1,561
Subscribers ¹ ('000)							
Telephone	1,086	1,531	1,656	1,751	1,851	1,936	1,949
Mobile Phone	75	404	743	1,020	1,471	2,442	2,859
Pager ²	333	1,032	1,314	1,309	1,200	839	482
Dial-up Internet ³	na	129	267	394	583	1,940	1,918
International Telephone Call Minutes ⁴ (million)	284	579	697	791	859	1,048	2,561
Telephone Lines Installed ¹ ('000)	1,080	1,531	1,656	1,751	1,851	1,936	1,948
Residential	719	928	995	1,069	1,117	1,152	1,156
Corporate	361	603	661	682	733	784	792

Source : Singapore Post

Infocomm Development Authority of Singapore

1 As at end of period.

2 Figures prior to 1992 are as at March of period.

3 From 2001, figures include contributions from IASPs.

4 Exclude calls to Malaysia. Figures prior to 1996 refer to financial year.

From 1998, figures include Real-Time Fax and Budgetcall Services.

From 2001, figures include traffic contributed by new service providers such as ISR operators.

15.1

VISITOR ARRIVALS BY REGION AND SELECTED COUNTRY OF RESIDENCE

15 TOURISM

Region/Country	1991	1992	1993	1994	1995	1996	1997
Visitor Arrivals	2,232,733	2,232,733	2,232,733	2,232,733	2,232,733	2,232,733	2,232,733
Asia	1,451,141	1,451,141	1,451,141	1,451,141	1,451,141	1,451,141	1,451,141
Europe	282,178	282,178	282,178	282,178	282,178	282,178	282,178
Americas	278,212	278,212	278,212	278,212	278,212	278,212	278,212
Africa	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Oceania	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Other	1,122	1,122	1,122	1,122	1,122	1,122	1,122
United Kingdom	1,122	1,122	1,122	1,122	1,122	1,122	1,122
United States	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Japan	1,122	1,122	1,122	1,122	1,122	1,122	1,122
France	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Germany	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Italy	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Spain	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Netherlands	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Sweden	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Belgium	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Australia	1,122	1,122	1,122	1,122	1,122	1,122	1,122
New Zealand	1,122	1,122	1,122	1,122	1,122	1,122	1,122
South Africa	1,122	1,122	1,122	1,122	1,122	1,122	1,122
India	1,122	1,122	1,122	1,122	1,122	1,122	1,122
China	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Thailand	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Malaysia	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Singapore	1,122	1,122	1,122	1,122	1,122	1,122	1,122

TOURISM

Source: Singapore Tourism Board

Excludes arrivals of Malaysians by land.

With effect from 1996, the tourism statistics from Singapore Tourism Board (STB) are based on data generated by the STB's Automated Information Management System (AIMS). Some of the past figures may have been revised.

ASEAN includes Brunei, Cambodia, Indonesia, Philippines, Laos, Malaysia, Myanmar, Singapore, Thailand and Vietnam. However, when used in the statistical tables, the term excludes Singapore.

Arrivals from ASEAN includes visitors arriving with effect from 1995. Laos and Myanmar arrivals with effect from August 1997 and Cambodia with effect from May 1999.

Figures from 1996 include Denmark, Norway and Sweden.

CIS denotes the Commonwealth of Independent States formerly known as Soviet Union.

Visitor Arrivals

Data on visitor arrivals are compiled from Disembarkation/Embarkation Forms (IMM 23A) completed by all visitors arriving in Singapore at the points of entry.

Monthly and annual summaries of characteristics of visitor arrivals from major markets are available respectively in the "Tourism Focus" and the "Singapore Annual Report on Tourism Statistics" published by the Singapore Tourism Board (STB).

Visitor Expenditure

Data are collected in the STB's Survey of Overseas Visitors to Singapore. Face-to-face interviews with visitors leaving Singapore by air are conducted throughout the year.

Definitions

Average Expenditure Per Visitor Per Day: This is obtained by dividing the sum of the total expenditures of those who indicated the total amount spent in Singapore by the product of the party-size and length of stay.

Events: These refer to any form of organised gatherings such as corporate meetings, conventions, congresses, conferences, symposiums, seminars, trade shows, fairs, exhibitions, or incentive meetings.

Conventions: The terms "congress", "conference", "convention", "symposium" and "seminar" are used interchangeably.

Exhibitions: Trade shows, exhibitions and trade fairs are interchangeable terms. An exhibition is defined as an event held during a limited period of time at which a large number of exhibitors display product samples or services with the ultimate goal of selling to the trade, industrial users and bulk buyers.

Incentive Travel: This refers to any form of travel programme sponsored by a company to reward or motivate employees to achieve extraordinary levels of performance.

Foreign Participants: They refer to foreign nationals, who are not permanent residents of Singapore, nor are they based in Singapore; delegates, speakers, observers, and members of the press are included.

15.1

VISITOR ARRIVALS BY REGION AND SELECTED COUNTRY OF RESIDENCE

Region/Country	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Total	5,414.7	7,292.4	7,197.9	6,242.2	6,958.2	7,691.4	7,522.2
Americas	326.8	459.5	460.4	425.4	444.3	483.0	433.6
Canada	58.5	65.6	62.5	64.3	72.5	71.4	69.3
USA	253.7	374.0	376.4	342.6	351.5	385.6	343.8
Asia	3,682.9	5,319.3	5,201.2	4,223.8	4,797.3	5,320.7	5,224.1
ASEAN ¹	1,680.3	2,256.1	2,327.2	1,880.4	2,221.4	2,427.7	2,522.9
Hong Kong SAR	213.0	288.5	264.8	273.1	260.0	286.0	276.2
India	209.6	204.2	226.6	243.7	288.4	346.4	339.8
Japan	871.3	1,171.9	1,094.0	843.7	860.7	929.9	755.8
South Korea	132.5	384.5	298.4	99.3	242.2	354.4	359.1
Pakistan	37.8	45.9	40.8	34.9	36.3	42.5	40.8
Saudi Arabia	16.4	16.9	15.0	20.3	23.1	24.8	25.1
Sri Lanka	56.0	46.4	47.1	53.1	60.1	63.2	56.2
Taiwan	287.1	528.4	499.8	362.4	317.5	290.8	222.1
Europe	898.0	1,002.7	987.5	982.7	1,050.0	1,127.9	1,114.6
Austria	18.0	23.0	18.9	17.6	16.7	16.0	14.1
Belgium & Luxembourg	15.8	20.2	22.0	20.2	20.0	23.9	23.4
France	69.6	76.7	73.6	75.7	74.0	74.8	71.5
Greece	14.1	13.9	13.0	13.5	13.3	13.2	11.3
Italy	51.8	41.9	41.4	40.8	43.8	42.2	35.7
Netherlands	72.2	66.1	63.2	60.1	64.7	77.3	75.0
Scandinavia ²	79.3	86.9	89.2	82.6	84.4	91.6	87.0
Switzerland	57.7	60.7	53.0	48.3	47.8	48.3	46.5
United Kingdom	274.7	312.5	333.2	357.9	401.5	445.0	460.0
Germany	142.3	190.6	169.5	159.2	167.9	169.4	167.0
CIS ³ & Eastern Europe	46.5	48.4	46.8	42.0	42.8	47.1	51.1
Oceania	449.9	431.0	462.8	519.8	564.5	616.6	656.5
Australia	368.0	351.6	381.5	427.2	466.1	510.3	550.7
New Zealand	62.0	67.7	70.4	81.6	86.7	94.3	94.3
Others	57.1	79.9	85.9	90.5	102.1	143.3	93.4
Africa	55.7	79.6	70.6	79.1	90.2	99.5	88.0

Source : Singapore Tourism Board

Note : Exclude arrivals of Malaysians by land.

With effect from the 1999 edition, the tourism statistics from Singapore Tourism Board (STB) are based on data generated by STB's "Automated Information Management System". Some of the past figures may have been revised.

1 ASEAN refers to the ten-country political association comprising Brunei, Cambodia, Indonesia, Philippines, Laos, Malaysia, Myanmar, Singapore, Thailand and Vietnam. However, when used in the statistical tables, the term excludes Singapore. Arrivals from ASEAN include Vietnam arrivals with effect from 1995, Laos and Myanmar arrivals with effect from August 1997 and Cambodia with effect from May 1999.

2 Figures from 1998 include Denmark, Norway and Sweden.

3 CIS denotes The Commonwealth of Independent States formerly known as Soviet Union.

15.2 VISITOR ARRIVALS BY (a) SEX AND (b) AGE GROUP

	1991	1996	1997	1998	1999	2000	2001
Total¹	5,414.7	7,292.4	7,197.9	6,242.2	6,958.2	7,691.4	7,522.2
Sex							
Males	3,373.0	4,434.1	4,540.6	3,931.8	4,273.6	4,725.2	4,213.0
Females	2,041.7	2,858.3	2,657.3	2,310.4	2,684.6	2,966.2	2,874.5
Age Group (Years)							
Under 15	337.4	469.9	485.1	442.4	504.4	547.7	546.4
15 - 19	147.9	195.1	202.7	187.2	222.4	244.6	222.1
20 - 24	485.3	537.1	516.5	441.1	478.2	532.3	526.4
25 - 34	1,471.3	1,818.4	1,808.3	1,573.2	1,717.3	1,920.1	1,890.8
35 - 44	1,318.1	1,711.7	1,674.6	1,458.3	1,600.0	1,774.0	1,721.1
45 - 54	893.3	1,376.7	1,343.2	1,157.8	1,280.9	1,418.4	1,381.3
55 - 64	493.1	788.2	755.6	637.2	738.4	802.9	793.5
65 & Over	232.6	374.0	364.1	312.3	384.8	416.3	410.9
Not Stated	35.7	21.3	47.8	32.7	31.8	35.2	29.6

Source : Singapore Tourism Board

Note : Exclude arrivals of Malaysians by land.

With effect from the 1999 edition, the tourism statistics from Singapore Tourism Board (STB) are based on data generated by STB's "Automated Information Management System". Some of the past figures may have been revised.

1 Include sex not stated.

15.3

VISITOR ARRIVALS BY (a) PURPOSE OF VISIT AND (b) TYPE OF ACCOMMODATION

Thousand									
	1991	1996	1997	1998	1999	2000	2001		
Total	5,414.7	7,292.4	7,197.9	6,242.2	6,958.2	7,691.4	7,522.2		
Purpose of Visit									
Holiday	3,133.1	3,880.1	3,442.2	2,828.7	3,411.2	3,701.6	3,487.6		
Business	759.9	1,063.1	1,156.0	1,029.8	1,115.2	1,263.3	1,171.5		
Business & Pleasure	198.5	212.2	208.5	172.4	182.4	193.7	184.0		
In Transit	501.8	684.7	667.0	610.7	700.3	773.6	796.8		
Visiting Friends/Relatives	200.2	317.5	406.0	439.3	468.9	492.4	526.3		
Meetings, Incentives, Conventions & Exhibitions	41.6	78.9	178.1	148.4	185.3	211.0	191.8		
Others	579.6	1,055.9	1,140.1	1,012.9	894.9	1,055.8	1,164.2		
Type of Accommodation									
Hotel	3,897.8	5,100.0	4,553.0	3,683.6	4,372.5	4,794.8	4,455.8		
Residence of Friends/Relatives	697.1	764.6	766.0	708.2	812.6	880.9	892.9		
No Accommodation Required	307.6	491.3	511.8	478.1	535.4	607.7	629.0		
Others	512.2	936.4	1,367.1	1,372.2	1,237.8	1,408.1	1,544.5		

Source : Singapore Tourism Board

Note : Exclude arrivals of Malaysians by land.

With effect from the 1999 edition, the tourism statistics from Singapore Tourism Board (STB) are based on data generated by STB's "Automated Information Management System". Some of the past figures may have been revised.

15.4 VISITOR ARRIVALS BY LENGTH OF STAY

	Thousand						
Length of Stay (Days)	1991	1996	1997	1998	1999	2000	2001
Total	5,269.2	7,073.0	6,922.9	5,959.5	6,702.1	7,480.9	7,340.8
Under 1	709.6	1,243.5	1,303.7	1,119.6	1,354.4	1,629.3	1,665.6
1	1,133.3	1,825.2	1,778.7	1,507.7	1,723.3	1,893.0	1,890.3
2	1,178.3	1,526.7	1,397.6	1,156.0	1,290.5	1,391.7	1,319.5
3	853.1	1,003.6	975.4	839.2	918.6	997.8	930.3
4 - 7	872.9	959.5	949.1	838.1	916.5	1,015.1	970.3
8 - 14	351.2	316.9	320.6	309.7	316.6	351.0	360.1
15 - 29	100.4	123.1	130.4	124.5	124.9	134.8	132.9
30 - 59	41.8	41.0	40.0	39.6	39.3	45.1	45.8
60 & Over	28.7	33.5	27.5	25.1	18.0	23.1	26.0
Average Length of Stay (Days)	3.9	3.3	3.3	3.4	3.2	3.2	3.2

Source : Singapore Tourism Board

Notes : Exclude arrivals of Malaysians by land.

Refer to visitors who left Singapore during the period specified.

With effect from the 1999 edition, the tourism statistics from Singapore Tourism Board (STB) are based on data generated by STB's "Automated Information Management System". Some of the past figures may have been revised.

15.5 AVERAGE EXPENDITURE PER VISITOR PER DAY BY COUNTRY OF RESIDENCE

	Dollars						
Country	1990	1995	1996	1997	1998	1999	2000
Total	314	221	220	206	206	203	187
ASEAN	327	277	255	249	193	190	229
Australia	324	194	184	201	200	185	171
Canada	261	131	147	138	191	157	196
China	-	146	165	133	214	237	201
France	292	164	187	245	199	202	131
Germany	229	155	163	170	152	143	121
Hong Kong SAR	225	154	160	171	162	155	124
India	302	231	216	207	271	332	278
Italy	349	215	226	220	172	125	166
Japan	352	229	221	197	225	234	128
Netherlands	222	143	153	138	163	128	144
New Zealand	291	227	216	193	275	264	150
South Africa	-	358	312	284	196	229	132
South Korea	381	160	307	154	171	173	115
Switzerland	248	213	193	158	185	142	149
Taiwan	369	195	203	152	171	174	134
United Kingdom	229	174	148	162	180	180	173
USA	267	163	181	195	220	183	181

Source : Singapore Tourism Board

15.6 OUTBOUND DEPARTURES OF SINGAPORE RESIDENTS BY MODE OF TRANSPORT

									Number
	1991	1996	1997	1998	1999	2000	2001		
Total	1,607,162	3,304,714	3,671,149	3,744,944	3,971,180	4,443,542	4,363,077		
Air	1,169,151	2,204,125	2,391,808	2,197,759	2,315,637	2,563,346	2,476,099		
Sea	438,011	1,100,589	1,279,341	1,547,185	1,655,543	1,880,196	1,886,978		

Source : Singapore Immigration & Registration

15.7 HOTELS AND CESS COLLECTION

	1991	1996	1997	1998	1999	2000	2001
Tourist Hotels ¹							
Number (At End Year)	67	90	94	101	99	101	102
Number of Rooms Available	22,700	27,604	27,313	27,412	27,542	28,212	27,859
Average Occupancy Rate (%)	76.8	82.3	79.4	71.3	74.9	83.5	76.3
Cess Collected ² (\$ ' 000)	30,883.3	12,493.0	12,515.0	10,343.0	10,044.0	11,778.0	11,535.0
Cess on Food & Beverages ² (\$ ' 000)	42,475.0	17,382.0	17,556.0	15,810.0	16,032.0	17,642.0	17,045.0

Source : Singapore Tourism Board

¹ Refer to gazetted hotels.² With effect from 1 April 1994, the rate has been reduced from 4% to 1%.

15.8 CONVENTIONS, EXHIBITIONS AND INCENTIVE GROUPS

	1990	1995	1996	1997	1998	1999	2000
Events							
Conventions	500	673	996	1,011	711	880	2,358
Exhibitions	64	114	106	104	72	51	66
Incentive groups	2,144	3,275	3,693	3,059	2,226	2,314	2,506
Foreign Participants							
Conventions ¹	47,019	56,119	52,004	59,577	36,182	61,021	148,689
Exhibitions	387,734	230,507	254,996	195,037	103,199	90,549	138,945
Incentive Groups	82,511	110,798	119,051	149,326	110,860	99,847	127,846

Source : Singapore Tourism Board

¹ Figure for 2000 includes Association Meetings and Corporate Meetings.

FINANCE

Definitions

Money Supply: Refers to the amount of money in an economy. Narrowly defined, money supply (M1) consists of currency in active circulation and demand deposits. A broad definition of money supply (M2) comprises money supply (M1) and quasi money. The latter includes fixed, savings and other deposits with banks as well as negotiable certificates of deposit in Singapore dollar issued by Singapore banks. Money supply (M3) consists of M2 and net deposits with non-bank financial institutions.

Asian Currency Unit (ACU): Refers to an operational unit of a financial institution which has been granted approval by the MAS to participate in the Asian Dollar Market in Singapore. The ACU is essentially a separate accounting unit of a financial institution set up for its transactions in the Asian Dollar Market.

Official Foreign Reserves: Refers to the gross official reserves held by the Monetary Authority of Singapore and the Board of

the MAS. The MAS is responsible for supervising and developing the insurance industry in Singapore. Insurance business in Singapore comprises life and general insurance. The general insurance business covers a wide range of risks such as fire, marine and aviation risks, motor, workmen's compensation, public liability and general accident. The main types of insurance plans offered by life insurers are whole life insurance, endowment insurance, term insurance and annuity contracts. Data on insurance are compiled by the MAS from returns submitted by all insurance companies in Singapore. The MAS conducts monetary and financial policies for the development of a sound financial market and an orderly financial system. It also administers the statistics pertaining to money and banking and formulates policies for the development of a sound financial market and an orderly financial system. It also administers the statistics pertaining to money and banking and formulates policies for the development of a sound financial market and an orderly financial system. It also administers the statistics pertaining to money and banking and formulates policies for the development of a sound financial market and an orderly financial system.

Asian Dollar Market
The Asian Dollar Market was officially established in October 1988 when approval was first given for a bank to operate an Asian Currency Unit (ACU). Since then, merchant banks have also been allowed to operate ACUs. As at 31 December 2001, there was a total of 17 ACUs in operation. Data on ACUs are compiled from returns submitted regularly by the ACU operators to the MAS.

Insurance

The insurance industry is regulated by the MAS under the Insurance Act (Cap 143). The MAS is responsible for supervising and developing the insurance industry in Singapore.

Insurance business in Singapore comprises life and general insurance. The general insurance business covers a wide range

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Before 1971, the various monetary functions normally associated with a central bank were performed by several government departments and agencies. To centralise these functions, the Monetary Authority of Singapore (MAS) was established in 1971 to assume the central bank role except for the currency issuing function which remained the responsibility of the Board of Commissioners of Currency. The MAS conducts monetary and exchange rate policies appropriate for sustained and non-inflationary economic growth in Singapore. It administers the statutes pertaining to money and banking and formulates policies for the development of a sound banking system and an orderly financial market. It aims to develop Singapore into an international financial centre.

Banking and finance company statistics are compiled from monthly returns submitted to the MAS.

Asian Dollar Market

The Asian Dollar Market was officially established in October 1968 when approval was first given for a bank to operate an Asian Currency Unit (ACU). Since then, merchant banks have also been allowed to operate ACUs. As at 31 December 2001, there was a total of 177 ACUs in operation. Data on ACUs are compiled from returns submitted regularly by the ACU operators to the MAS.

Insurance

The insurance industry is regulated by the MAS under the Insurance Act (Cap 142). The MAS is responsible for supervising and developing the insurance industry in Singapore.

Insurance business in Singapore comprises life and general insurance. The general insurance business covers a wide range

of risks such as fire, marine and aviation, motor, workmen's compensation, public liability and personal accident. The main types of insurance plans offered by life insurers are whole life insurance, endowment insurance, term insurance and annuity contracts.

Data on insurance are compiled by the MAS from returns submitted by all insurance companies in Singapore.

Statistics on banking, finance and insurance may be found in the "Monthly Statistical Bulletin" and MAS annual report published by the MAS.

Central Provident Fund

Please see text in Section 4.

Definitions

Money Supply: Refers to the amount of money in an economy. Narrowly defined, money supply (M1) consists of currency in active circulation and demand deposits. A broad definition of money supply (M2) comprises money supply (M1) and quasi money. The latter includes fixed, savings and other deposits with banks as well as negotiable certificates of deposit in Singapore dollar issued by Singapore banks. Money supply (M3) consists of M2 and net deposits with non-bank financial institutions.

Asian Currency Unit (ACU): Refers to an operational entity of a financial institution which has been granted approval by the MAS to participate in the Asian Dollar Market in Singapore. The ACU is essentially a separate accounting unit of a financial institution set up for its transactions in the Asian Dollar Market.

Official Foreign Reserves: Refers to the gross official reserves held by the Monetary Authority of Singapore and the Board of

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Commissioners of Currency, Singapore. The data include gold and foreign exchange, Special Drawing Rights and Singapore's reserve position in the International Monetary Fund. Prior to May 1999, Singapore's official foreign reserves were valued at book cost. With effect from May 1999, the book value of foreign reserve assets are translated at market exchange rates prevailing at the end of each reporting month.

Special Drawing Rights (SDR): Refers to an international reserve asset created by the IMF and allocated to its members in proportion to their quotas as a supplement to existing reserve assets. The SDR is a unit account of the IMF. The valuation of the SDR is determined on the basis of a basket of four currencies: the US dollar, the Euro, the Japanese Yen and the Pound Sterling.

Main Cards and Supplementary Cards : Refer to both credit and charge cards issued by the card issuing companies.

Total Cards Billings : Refer to total billings of Singapore cardholders excluding interest charges and membership fees.

Rolled Over Balances : Refer to balances that are subject to interest charges because they are not settled within the 'free credit' period. These include the minimum payment not settled by due date as well as the amount that is rolled over after settlement of the minimum sum.

Bad Debts Written Off : They are included as and when they occur. This is because the period of when bad debts are written off differs from one card issuer to another.

16.1 CURRENCY IN CIRCULATION

(End of Period)

	1991	1996	1997	1998	1999	2000	2001
Gross Circulation (\$m)	8,168.7	11,276.2	11,732.7	11,337.9	14,209.1	13,017.0	13,304.4
Notes	7,645.7	10,520.9	10,928.1	10,515.1	13,350.8	12,130.7	12,393.3
Coins	523.0	755.4	804.6	822.8	858.3	886.3	911.1
Active Circulation ¹ (\$m)	7,497.1	10,293.1	10,703.8	10,146.2	11,315.4	11,289.2	11,867.8
Ratio of Active to Gross Circulation (%)	91.8	91.3	91.2	89.5	79.6	86.7	89.2

Source : Board of Commissioners of Currency, Singapore

- 1 Refer to gross circulation less amounts held by Government treasuries and banks as well as commemorative coins issued by the Board of Commissioners of Currency, Singapore.

16.2 MONEY SUPPLY

(End of Period)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Money Supply (M1)	16,430.0	27,040.0	27,510.9	27,239.1	31,109.1	33,261.9	36,082.9
Currency in Active Circulation ¹	7,497.1	10,293.1	10,703.8	10,146.2	11,315.4	11,289.2	11,867.8
Demand Deposits of Private Sector	8,932.9	16,746.9	16,807.1	17,092.9	19,793.7	21,972.7	24,215.1
Money Supply (M2)	69,542.3	111,950.8	123,443.4	160,783.9	174,474.4	170,897.8	180,908.5
M1	16,430.0	27,040.0	27,510.9	27,239.1	31,109.1	33,261.9	36,082.9
Quasi-Money	53,112.3	84,910.8	95,932.5	133,544.8	143,365.3	137,635.9	144,825.6
Fixed Deposits	40,852.0	59,987.0	72,704.6	81,294.6	85,988.3	83,043.8	83,308.2
S\$ Negotiable Cert of Deposits	921.8	844.5	633.5	576.5	549.0	315.3	203.9
Savings and Other Deposits	11,338.5	24,079.3	22,594.4	51,673.7	56,828.0	54,276.8	61,313.5
Money Supply (M3) ²	92,649.7	148,494.7	160,766.0	173,581.0	186,183.7	182,912.7	190,316.9
M2	69,542.3	111,950.8	123,443.4	160,783.9	174,474.4	170,897.8	180,908.5
Net Deposits with Non-bank Financial Institutions ³							
Finance Companies	7,557.3	13,192.0	13,969.3	12,797.1	11,709.3	12,014.9	9,408.4
Post Office Savings Bank	15,550.1	23,351.9	23,353.3	-	-	-	-

Source : Monetary Authority of Singapore

- 1 Exclude commemorative, numismatic and bullion coins issued by the Board of Commissioners of Currency, Singapore and cash held by commercial banks and other financial institutions.
- 2 The M3 series has been revised to include the Post Office Savings Bank's (POSBank) fixed deposits with MAS.
- 3 Refer to deposits of finance companies and the POSBank less their deposits with banks. From November 1998, with the acquisition of POSBank by the Development Bank of Singapore, POSBank's data have been incorporated as part of the banking system in M1 and M2 and not as a non-bank financial institution.

16.3

MONETARY SURVEY

(End of Period)

Million Dollars

	1997	1998	1999	2000	2001
Money Supply					
M1	27,510.9	27,239.1	31,109.1	33,261.9	36,082.9
Quasi Money	95,932.5	133,544.8	143,365.3	137,635.9	144,825.6
M2	123,443.4	160,783.9	174,474.4	170,897.8	180,908.5
Domestic Credit	162,300.2	181,330.8	182,452.0	198,063.0	231,819.6
Public Sector	18,883.4	26,477.2	32,240.4	38,969.0	46,762.6
Private Sector	143,416.8	154,853.6	150,211.6	159,094.0	185,057.0
Government Deposits	59,049.2	59,250.5	60,626.4	71,423.6	87,195.6
Net Foreign Position	92,836.1	115,512.0	130,950.0	126,342.7	132,844.9
Monetary Authorities	119,342.8	124,335.1	127,137.7	137,816.0	138,588.9
Banks	-26,506.7	-8,823.1	3,812.3	-11,473.3	-5,744.0
Other Items	-72,643.7	-76,808.4	-78,301.2	-82,084.3	-96,560.4

Source : Monetary Authority of Singapore

16.4 OFFICIAL FOREIGN RESERVES (End of Period)

								Million Dollars
	1991	1996	1997	1998	1999	2000	2001	
Total Foreign Reserves	55,802.8	107,750.8	119,616.8	124,584.4	128,457.0	139,260.0	139,942.1	
Special Drawing Rights	279.1	249.5	287.8	399.6	387.5	417.1	473.6	
Reserve Position in the International Monetary Fund	199.7	428.8	564.3	614.5	908.5	868.0	919.8	
Gold & Foreign Exchange	55,324.0	107,072.5	118,764.7	123,570.3	127,161.0	137,974.9	138,548.7	
Total Foreign Reserves (million US\$)	34,224.3	76,975.9	71,391.7	75,028.2	77,176.0	80,361.9	75,800.1	

Source : Monetary Authority of Singapore

16.5 EXCHANGE RATES (Average for the Year)

Currency	1991	1996	1997	1998	1999	2000	2001
Singapore Dollar Per							
Malaysian Ringgit	0.6283	0.5605	0.5353	0.4271	0.4460	0.4537	0.4715
US Dollar	1.7276	1.4100	1.4848	1.6736	1.6950	1.7240	1.7917
Euro	na	na	na	na	1.8093	1.5930	1.6050
Pound Sterling	3.0559	2.2017	2.4334	2.7722	2.7427	2.6134	2.5809
100 Japanese Yen	1.2843	1.2971	1.2277	1.2823	1.4944	1.6001	1.4751
100 Korean Won	0.2357	0.1754	0.1587	0.1204	0.1426	0.1526	0.1389
100 New Taiwan Dollar	6.4415	5.1354	5.1751	5.0004	5.2544	5.5231	5.3031
Hong Kong Dollar	0.2223	0.1823	0.1918	0.2160	0.2185	0.2212	0.2297
Australian Dollar	1.3454	1.1040	1.1025	1.0518	1.0933	1.0031	0.9274

Source : Monetary Authority of Singapore

16.6 ASSETS OF BANKS

(End of Period)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Total	136,093.4	252,723.4	289,572.3	309,974.5	326,295.4	344,005.8	384,631.0
Cash	532.9	811.2	802.2	998.2	2,556.7	1,488.9	1,234.3
Amounts Due from Banks	47,683.6	86,112.6	99,935.3	106,345.0	114,900.2	124,665.5	125,133.7
In Singapore	12,058.3	33,555.1	30,220.6	38,215.6	29,458.6	42,535.9	27,069.9
Outside Singapore ¹	35,625.3	52,557.5	69,714.7	68,129.4	85,441.6	82,129.6	98,063.8
Balances with Monetary Authority of Singapore	4,227.4	7,095.4	7,702.2	5,430.8	7,524.3	5,690.9	6,970.8
S\$ Negotiable Certificates of Deposit Held	271.7	198.5	212.5	175.0	162.5	149.7	167.3
Investments in Securities & Equities	14,224.9	24,633.3	26,405.8	35,238.0	40,260.7	45,463.4	70,847.4
In Singapore	13,894.2	23,339.4	25,078.3	33,857.5	37,595.1	42,072.6	66,988.8
Outside Singapore	330.7	1,293.9	1,327.5	1,380.5	2,665.6	3,390.8	3,858.6
Loans & Advances Including							
Bills Financing	64,009.1	126,987.7	143,243.8	151,640.9	147,185.5	154,042.1	162,920.8
Bills Discounted or Purchased	5,466.0	8,693.4	9,363.5	4,924.5	5,118.1	3,584.3	3,636.6
Payable outside Singapore	1,332.3	2,928.8	3,812.4	1,937.7	1,669.4	1,438.6	1,898.8
Payable inside Singapore	4,133.8	5,764.6	5,551.1	2,986.8	3,448.8	2,145.6	1,737.8
Loans & Advances	58,543.0	118,294.3	133,880.3	146,716.3	142,067.3	150,457.9	159,284.2
All Other Assets	5,143.8	6,884.7	11,270.6	10,146.6	13,705.5	12,505.3	17,356.6

Source : Monetary Authority of Singapore

Note : With effect from November 1998, figures include Post Office Savings Bank.

¹ Include Asian Currency Units.

16.7 LIABILITIES OF BANKS (End of Period)

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	136,093.4	252,723.4	289,572.3	309,974.5	326,295.4	344,005.8	384,631.0
Deposits of Non-bank Customers	72,241.1	118,201.5	124,143.0	162,310.3	174,454.1	171,316.4	182,551.4
Demand Deposits	10,290.8	18,862.7	18,297.4	18,427.1	21,676.0	23,650.0	25,966.6
Fixed Deposits	49,528.9	71,802.7	80,089.1	88,658.1	92,118.7	89,774.6	90,845.1
Savings Deposits	11,981.1	27,168.2	25,439.4	54,862.4	60,271.8	57,477.4	65,331.1
Other Deposits	440.3	368.0	317.2	362.7	387.6	414.4	408.7
S\$ Negotiable Certificates of Deposit Issued	1,193.5	1,043.0	846.0	751.5	711.5	465.0	371.3
Amounts Due to Banks	45,002.1	101,576.8	125,856.1	105,301.7	103,432.8	126,223.9	129,237.8
In Singapore	10,419.7	34,328.6	31,134.2	29,769.5	23,124.0	34,334.2	28,544.0
Outside Singapore ¹	34,582.4	67,248.2	94,721.9	75,532.2	80,308.8	91,889.7	100,693.8
All Other Liabilities	17,656.8	31,902.1	38,727.2	41,611.0	47,697.0	46,000.5	72,470.5

Source : Monetary Authority of Singapore

Note : With effect from November 1998, figures include Post Office Savings Bank.

¹ Include Asian Currency Units.

16.8 BANKS' LOANS AND ADVANCES TO NON-BANK CUSTOMERS BY INDUSTRY (End of Period)

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total (Including bills financing)	64,009.1	126,987.7	143,243.8	151,640.9	147,185.5	154,042.1	162,920.8
Agriculture, Mining & Quarrying	96.9	132.8	187.6	223.6	191.4	178.7	159.6
Manufacturing	8,122.6	12,248.2	12,472.0	12,249.2	11,574.7	11,620.7	11,918.2
Building & Construction ¹	15,578.4	41,803.5	49,169.6	57,368.5	58,598.1	64,207.2	68,309.6
General Commerce	15,694.7	23,931.8	26,349.5	21,549.1	19,949.3	18,967.5	17,703.0
Transport, Storage & Communications	1,816.9	2,618.7	3,575.7	4,459.7	3,743.3	4,124.2	6,148.9
Financial Institutions	10,317.9	19,448.3	20,997.4	22,724.1	21,062.8	20,864.7	21,559.2
Professional & Private Individuals	8,290.2	20,256.1	22,775.4	21,766.1	21,594.2	24,722.1	27,743.0
Others	4,091.5	6,548.3	7,716.5	11,300.6	10,471.7	9,356.9	9,379.4

Source : Monetary Authority of Singapore

Notes : Prior to June 1999, data on bills financing include bills refinanced by Monetary Authority of Singapore.

With effect from November 1998, figures include Post Office Savings Bank.

¹ Include building and building co-operative societies, building developers, real estate agents and housing loans.

16.9

ASSETS AND LIABILITIES OF ASIAN CURRENCY UNITS

(End of Period)

Million US Dollars

	1991	1996	1997	1998	1999	2000	2001
Assets							
Total	357,725.0	506,870.2	557,193.5	503,609.9	480,399.4	486,452.7	471,392.3
Loans to Non-bank Customers	134,078.3	180,505.5	173,286.3	131,712.7	110,593.9	89,446.0	79,324.2
Inter-bank Funds	197,028.2	278,743.1	330,685.5	330,193.3	318,776.6	338,488.2	329,821.6
In Singapore	8,221.1	22,357.2	29,846.3	25,930.5	26,781.7	31,221.6	33,057.4
Inter-Asian Currency Units	26,626.4	40,236.8	48,882.9	40,696.6	34,698.2	31,512.8	30,916.8
Outside Singapore	162,180.7	216,149.1	251,956.3	263,566.2	257,296.7	275,753.8	265,847.4
Other Assets	26,618.6	47,621.5	53,221.7	41,703.9	51,028.9	58,518.5	62,246.5
Liabilities							
Total	357,725.0	506,870.2	557,193.5	503,609.9	480,399.4	486,452.7	471,392.3
Deposits of Non-bank Customers	63,499.4	95,373.8	113,683.4	113,077.0	121,319.5	124,651.5	122,472.4
Inter-bank Funds	281,813.5	389,469.6	414,526.2	365,479.4	326,542.7	321,650.1	316,068.2
In Singapore	14,258.8	25,257.4	32,271.9	20,742.4	28,200.3	27,975.8	31,670.1
Inter-Asian Currency Units	26,624.1	40,243.3	48,905.3	40,694.4	34,701.6	31,517.0	30,926.4
Outside Singapore	240,930.5	323,968.9	333,349.0	304,042.6	263,640.8	262,157.3	253,471.7
Other Liabilities	12,412.1	22,026.8	28,984.0	25,053.3	32,537.4	40,151.0	32,851.8

Source : Monetary Authority of Singapore

16.10

ASSETS AND LIABILITIES OF FINANCE COMPANIES

(End of Period)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Assets							
Total	12,459.8	21,189.4	22,210.6	21,941.9	20,742.4	19,801.1	14,961.1
Cash & Balances with Monetary Authority of Singapore	477.5	827.0	884.6	414.4	391.1	381.9	296.3
Deposits with Banks & Other Institutions	2,478.7	2,165.9	1,904.2	2,721.8	2,729.7	1,664.5	1,241.9
Securities & Equities	614.5	1,139.4	1,201.6	1,705.2	1,691.5	1,680.4	1,257.0
Loans & Advances	8,666.3	16,762.7	17,900.2	16,779.4	15,636.4	15,790.9	11,983.0
Hire Purchase Finance	2,384.1	4,982.4	4,958.8	4,331.6	4,413.3	5,700.1	4,394.8
Housing Loans	1,523.9	3,221.1	3,721.7	3,821.2	3,500.1	2,768.0	1,884.7
Other Loans & Advances	4,758.3	8,559.2	9,219.7	8,626.6	7,723.0	7,322.8	5,703.5
Other Assets	222.9	294.5	320.0	321.1	293.6	283.3	183.0
Liabilities							
Total	12,459.8	21,189.4	22,210.6	21,941.9	20,742.4	19,801.1	14,961.1
Capital & Reserves	1,510.3	3,014.7	3,268.5	3,371.2	3,408.1	3,164.9	2,425.5
Deposits from Individuals & Institutions	8,972.1	15,071.6	15,611.8	15,344.6	14,321.9	13,645.9	10,641.4
Savings Deposits	296.2	371.6	392.7	341.7	344.3	194.6	202.4
Fixed Deposits	8,323.8	13,311.8	15,124.9	14,882.9	13,875.5	13,425.4	10,431.4
Other Deposits	352.1	1,388.2	94.2	120.0	102.1	26.0	7.6
Other Liabilities	1,977.4	3,103.1	3,330.2	3,226.0	3,012.4	2,990.3	1,894.2

Source : Monetary Authority of Singapore

16.11

FINANCE COMPANIES' LOANS AND ADVANCES BY INDUSTRY

(End of Period)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Total	3,637.7	7,177.1	7,784.9	7,642.9	7,008.0	6,558.4	5,038.8
Agriculture, Mining & Quarrying	3.3	0.5	0.1	0.1	0.1	5.5	4.1
Manufacturing	229.9	325.4	419.6	424.1	394.4	381.0	181.7
Building & Construction	861.7	1,799.2	1,886.5	1,890.1	1,636.7	1,616.4	1,579.2
General Commerce	455.9	635.9	637.8	627.3	630.4	574.9	355.7
Transport, Storage & Communications	202.5	318.7	359.2	368.5	286.6	273.3	133.6
Financial Institutions	595.2	1,156.3	1,319.4	1,285.0	1,260.7	1,247.1	1,061.7
Professional & Private Individuals	938.4	2,585.6	2,766.7	2,634.5	2,372.1	2,087.1	1,434.5
Others	350.8	355.5	395.7	413.4	427.0	373.0	288.3

Source : Monetary Authority of Singapore

16.14

CONTRIBUTIONS AND WITHDRAWALS OF CENTRAL PROVIDENT FUND

Source : Monetary Authority of Singapore

Notes : Data include operations of Asian Currency Unit of member banks

Amounts in million Singapore dollars

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001

Contributed

Withdrawn

Due to Members
(End of Period)

Source : Central Provident Fund Board

16.12

ASSETS AND LIABILITIES OF MERCHANT BANKS

(End of Period)

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Assets							
Total	30,022.5	53,580.6	66,661.2	60,545.4	56,999.6	59,871.2	56,398.4
Amounts Due from Banks	11,573.2	21,796.7	28,222.0	27,632.0	27,337.8	30,386.1	25,703.8
In Singapore	682.2	771.9	1,221.3	1,771.2	1,704.7	1,554.7	1,427.1
Outside Singapore ¹	10,891.0	21,024.8	27,000.7	25,860.8	25,633.1	28,831.4	24,276.7
Loans & Advances to Non-bank Customers	10,590.8	17,348.9	21,777.5	19,321.2	20,846.5	21,833.8	20,309.8
Securities & Equities	7,029.4	11,678.3	14,339.0	9,662.9	6,934.8	6,263.4	9,354.9
Other Assets	829.1	2,756.7	2,322.8	3,929.2	1,880.5	1,387.9	1,029.9
Liabilities							
Total	30,022.5	53,580.6	66,661.2	60,545.4	56,999.6	59,871.2	56,398.4
Capital & Reserves	4,781.9	6,646.0	8,193.7	7,597.8	8,008.6	8,296.2	8,088.5
Amounts Due to Banks	18,039.7	34,571.8	41,111.3	30,363.7	26,501.8	26,943.4	27,617.9
In Singapore	565.6	481.5	974.2	1,083.2	649.0	671.8	895.1
Outside Singapore ¹	17,474.1	34,090.3	40,137.1	29,280.5	25,852.8	26,271.6	26,722.8
Borrowings from Non-bank Customers	5,956.4	9,030.0	13,814.9	17,751.6	18,914.6	21,587.0	17,861.3
Other Liabilities	1,244.5	3,332.9	3,541.2	4,832.3	3,574.6	3,044.7	2,830.7

Source : Monetary Authority of Singapore

Notes : Data include operations of Asian Currency Units of merchant banks.

Provision of corporate financial advisory services, underwriting and operations in the gold market are not reflected in the data.

¹ Include Asian Currency Units.

16.13

DOMESTIC INTEREST RATES
(End of Period)

	Per Cent Per Annum						
	1991	1996	1997	1998	1999	2000	2001
Banks ¹							
Prime Lending Rate	7.10	6.26	6.96	5.90	5.80	5.80	5.35
Deposit Rates							
3 Months	3.84	3.41	4.10	1.72	1.68	1.70	1.10
6 Months	4.13	3.67	4.20	2.08	2.04	2.04	1.41
12 Months	4.17	3.99	4.41	2.51	2.46	2.42	1.63
Savings Deposit Rate	3.05	2.72	3.08	1.43	1.36	1.30	0.84
Finance Companies							
Deposit Rates ²							
Up to 3 Months	4.33	3.20	4.00	1.85	1.80	1.80	1.20
12 Months	4.65	3.98	4.40	2.75	2.80	2.74	1.65

Source : Monetary Authority of Singapore

¹ Refer to the average quoted by 10 leading banks.² Refer to the average quoted by 10 leading finance companies.

16.14

CONTRIBUTIONS AND WITHDRAWALS OF CENTRAL PROVIDENT FUND

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Amount							
Contributed	8,101.4	14,623.0	15,873.8	15,999.8	12,826.6	14,092.8	18,322.3
Withdrawn	4,656.1	10,529.6	11,456.5	13,609.8	12,788.6	14,555.9	18,860.4
Due to Members (End of Period)	46,049.0	72,566.6	79,657.4	85,276.8	88,396.9	90,298.3	92,221.2

Source : Central Provident Fund Board

16.15 WITHDRAWALS OF CENTRAL PROVIDENT FUND BY TYPE

	1991	1996	1997	1998	1999	2000	2001
Million Dollars							
Total	4,656	10,530	11,457	13,610	12,789	14,556	18,861
Housing Schemes ¹							
Public Housing	1,731	3,000	3,460	4,796	5,428	5,443	5,264
Residential Properties	1,269	2,059	2,327	3,039	4,100	3,212	3,000
Reached 55 Years of Age ²	732	1,205	1,070	1,286	1,159	1,219	1,731
Leaving Singapore & Malaysia							
Permanently ³	157	310	350	395	347	304	304
Death	63	109	116	151	152	145	173
Medisave Scheme	231	316	339	349	348	421	453
Others ^{1, 4}	473	3,532	3,794	3,595	1,254	3,813	7,937
Number							
Housing Schemes ⁵							
Public Housing	47,526	55,178	53,544	99,534	76,468	57,413	57,049
Residential Properties	14,841	17,773	17,867	17,670	36,488	19,979	17,241
Reached 55 Years of Age ²	32,122	101,757	117,592	64,928	63,874	186,525	405,709
Leaving Singapore & Malaysia							
Permanently ³	4,940	8,841	8,218	8,744	7,669	7,280	8,106
Death	4,599	10,545	12,446	15,084	15,376	12,649	14,373

Source : Central Provident Fund Board

1 Refer to net amount withdrawn (gross amount withdrawn less amount refunded) by members in the year.

2 Include first and subsequent withdrawals. In 2000 & 2001, the increase in the number of withdrawals was due to the withdrawal of the government top-up under the CPF Top-up Scheme.

3 Include Malaysians leaving Singapore permanently.

4 Include withdrawals by persons who are physically/mentally incapacitated and under the various CPF schemes - Minimum Sum, MediShield, Home Protection, Dependents' Protection, Education, Non-Residential Properties, Investment and DelGro Corporation Ltd shares.

5 Refer only to members who joined the scheme in the year.

16.16 TURNOVER ON THE SINGAPORE EXCHANGE (EQUITIES)

	1998	1999	2000	2001
SGX Mainboard (S\$ trades)				
Volume (million)	35,938.1	96,608.8	78,483.0	74,480.0
Multi-industry	5,751.1	7,861.8	4,992.4	4,864.3
Manufacturing	6,574.1	26,855.2	27,899.8	28,660.1
Commerce	2,149.5	9,302.1	5,620.6	4,665.3
Transport/Storage/ Communications	3,926.1	9,823.2	8,133.6	8,905.0
Finance	5,173.5	5,991.8	6,023.3	7,983.8
Construction	1,686.5	8,587.9	6,221.9	3,973.7
Properties	6,908.4	7,889.6	3,761.7	3,350.1
Hotels/Restaurants	302.8	1,629.5	638.6	490.6
Services	882.2	2,560.9	8,119.7	8,658.2
Electricity/Gas/Water	-	202.3	56.5	32.4
Agriculture	-	1,131.7	428.8	695.9
Debentures, Bonds & Loan Stocks	2,583.8	14,772.7	6,586.0	2,200.5
Value (million \$)	74,479.4	151,107.5	151,179.0	113,870.3
Multi-industry	8,834.0	13,804.1	9,487.6	6,426.2
Manufacturing	13,199.6	33,248.7	57,282.2	37,067.0
Commerce	1,982.1	7,762.4	2,674.1	1,773.7
Transport/Storage/ Communications	11,079.0	20,532.3	16,547.8	17,743.4
Finance	23,278.9	40,043.2	41,461.5	37,033.1
Construction	861.3	5,637.8	3,886.3	1,231.3
Properties	12,999.1	18,196.8	9,419.6	7,473.6
Hotels/Restaurants	204.4	1,156.3	533.2	344.1
Services	1,221.7	3,789.3	7,569.1	3,725.4
Electricity/Gas/Water	-	64.5	13.6	5.2
Agriculture	-	433.3	162.2	94.8
Debentures, Bonds & Loan Stocks	819.3	6,438.8	2,141.8	952.5

Source : Singapore Exchange Limited

16.17

SINGAPORE EXCHANGE - SECURITY TRADING SECTORAL INDICES

(2 January 1997=1,000)

(End of Period)

	1997	1998	1999	2000	2001
Multi-industry	565.8	783.4	1,152.2	989.8	815.6
Manufacturing	892.9	847.9	1,502.5	968.8	940.4
Commerce	588.8	474.6	599.0	370.8	334.2
Transport/Storage/ Communications	942.8	792.4	1,264.3	1,039.9	705.6
Finance	799.7	832.0	1,835.2	1,408.8	1,382.1
Construction	437.0	374.9	802.5	414.5	275.6
Properties	561.4	483.1	692.7	570.4	436.2
Hotels/Restaurants	720.8	533.6	783.3	731.2	655.0

Source : Singapore Exchange Limited

16.18

PLEDGES AT PAWNSHOPS

	1991	1996	1997	1998	1999	2000	2001
Pledges (' 000)							
Received	2,465.7	2,709.7	2,677.5	2,783.7	2,738.8	2,696.9	2,716.3
Redeemed	2,220.8	2,394.4	2,292.0	2,265.7	2,359.0	2,311.0	2,349.8
Amount of Loans (\$m)							
Given Out	754.6	1,097.3	1,133.0	1,159.2	1,109.0	1,113.8	1,112.8
Redeemed including Interest	734.7	1,041.6	1,021.4	1,043.1	1,064.4	1,053.8	1,069.6

Source : Registry of Pawnbrokers

16.19 LIFE INSURANCE POLICIES

	1990	1995	1996	1997	1998	1999	2000
Thousand							
Policies in Force (End of Period)	1,055	2,454	2,792	3,117	3,308	3,555	4,009
New Policies	237	417	440	453	355	413	617
Policies Matured or Discontinued	52	90	101	129	164	166	163
Million Dollars							
Policies in Force							
Amount Insured (End of Period)	59,455	146,426	169,868	187,986	209,568	230,200	252,591
Premiums	1,123	3,016	3,538	4,202	4,469	4,680	5,072
New Policies							
Amount Insured	14,975	28,866	34,940	37,835	37,777	38,728	41,293
Premiums	286	584	657	837	540	553	706
Policies Matured or Discontinued							
Amount Insured	4,200	8,944	11,498	19,717	16,195	18,096	18,902
Premiums	59	118	135	173	274	341	314

Source : Monetary Authority of Singapore

16.20

REVENUE AND EXPENDITURE ACCOUNTS OF LIFE INSURANCE FUNDS

Million Dollars

	1990	1995	1996	1997	1998	1999	2000
Revenue							
Total	4,611	13,911	17,130	21,353	23,622	29,896	36,829
Balance of Revenue Account at Beginning of Year	3,054	9,483	12,006	14,835	17,425	20,158	26,476
Premiums	1,076	3,523	4,215	5,505	5,015	6,508	8,569
Net Interest, Dividends & Rents	214	476	559	680	903	978	1,270
Miscellaneous	267	429	350	333	279	2,252	513
Expenditure							
Total	4,611	13,911	17,130	21,353	23,622	29,896	36,829
Claims on Death, Disability & Maturity	184	522	622	1,035	1,062	925	1,035
Surrenders	62	191	262	323	598	899	864
Cash Bonuses & Annuities	54	55	63	82	93	94	122
Management Expenses							
Commission	291	697	788	856	702	691	705
Salaries	44	92	107	126	133	133	152
Others	68	162	177	199	194	205	211
Miscellaneous	180	186	274	1,258	682	473	1,453
Balance of Revenue Account at End of Year	3,728	12,006	14,837	17,474	20,158	26,476	32,286

Source : Monetary Authority of Singapore

16.21

ASSETS OF LIFE INSURANCE FUNDS

(End of Period)

	Million Dollars						
	1990	1995	1996	1997	1998	1999	2000
Total	4,100	13,228	16,303	19,199	21,848	28,453	34,761
Land & Buildings	115	884	1,174	1,565	1,861	1,850	1,830
Loans	802	2,089	2,519	2,892	3,655	4,017	4,676
On Mortgages	348	1,021	1,293	1,274	1,452	1,542	1,877
On Policies	274	713	866	1,082	1,423	1,649	1,870
Others	180	355	360	536	780	826	929
Investments	2,054	7,404	9,000	10,462	11,179	17,411	23,085
Government & Statutory Authorities	843	1,231	896	990	1,224	2,764	3,846
Debentures & Shares ¹	1,211	6,173	8,104	9,472	9,955	14,647	19,239
Cash & Deposits	947	2,496	3,168	3,768	4,446	4,557	4,431
Miscellaneous (including Outstanding Premiums) ²	183	355	442	512	707	618	741

Source : Monetary Authority of Singapore

¹ Include other investments.² Include furniture.

16.22

PREMIUMS AND CLAIMS OF GENERAL INSURANCE FUNDS

	Million Dollars						
	1990	1995	1996	1997	1998	1999	2000
Net Premiums ¹							
Total	693	1,221	1,306	1,352	1,251	1,208	1,277
Marine, Aviation or Transit	99	148	153	156	130	117	135
Others	594	1,073	1,153	1,196	1,121	1,091	1,142
Fire	88	121	130	140	144	145	142
Motor Vehicles	298	497	492	488	437	413	459
Miscellaneous	209	455	531	568	540	533	541
Net Claims ²							
Total	303	525	582	626	726	706	737
Marine, Aviation or Transit	45	43	51	47	53	61	53
Others	258	482	531	579	673	645	684
Fire	29	34	43	43	41	44	47
Motor Vehicles	148	277	300	321	346	348	390
Miscellaneous	82	171	188	215	286	253	247

Source : Monetary Authority of Singapore

1 Refer to gross premiums less premiums paid for re-insurance in and out of Singapore.

2 Refer to gross claims paid less recoveries from re-insurance placed in and out of Singapore.

16.23

REVENUE AND EXPENDITURE ACCOUNTS OF
GENERAL INSURANCE FUNDS

Million Dollars

	1990	1995	1996	1997	1998	1999	2000
Revenue							
Total	2,032	3,597	3,999	4,384	4,444	4,507	4,734
Balance of Revenue Account at Beginning of Year	309	758	862	982	1,053	1,171	1,294
Reserves for Unexpired Risks at Beginning of Year	273	488	545	582	600	547	542
Loss Reserves at Beginning of Year	621	1,003	1,108	1,194	1,292	1,317	1,358
Net Premiums Written	693	1,221	1,306	1,352	1,251	1,208	1,277
Net Interest, Dividends & Rents	76	94	103	127	158	115	135
Miscellaneous	61	33	75	147	90	149	128
Expenditure							
Total	2,032	3,597	3,999	4,384	4,444	4,507	4,734
Net Claims Settled, Loss Reserves at End of Year	1,007	1,640	1,792	1,927	2,074	2,070	2,157
Management Expenses							
Commission	108	161	171	183	166	160	149
Others	157	297	332	338	339	341	322
Miscellaneous	108	81	111	263	90	70	160
Balance of Revenue Account at End of Year	341	871	1,009	1,074	1,217	1,322	1,362
Reserves for Unexpired Risks at End of Year	311	547	584	599	558	544	584

Source : Monetary Authority of Singapore

16.24

ASSETS OF GENERAL INSURANCE FUNDS

(End of Period)

Million Dollars

	1990	1995	1996	1997	1998	1999	2000
Total	1,657	3,291	3,610	3,787	3,919	4,006	4,173
Land & Buildings	52	194	202	230	221	222	218
Loans	15	53	66	79	84	103	106
Investments	695	1,306	1,428	1,338	1,418	1,831	2,042
Government & Statutory Authorities	291	320	273	259	355	465	459
Debentures & Shares	403	986	1,155	1,079	1,063	1,366	1,583
Cash & Deposits	687	1,276	1,435	1,636	1,691	1,383	1,308
Miscellaneous	207	462	479	504	505	467	499

Source : Monetary Authority of Singapore

16.25

CREDIT AND CHARGE CARDS

	1996	1997	1998	1999	2000	2001
Main Cards ¹ ('000)	1,117.1	1,241.1	1,369.1	1,505.6	1,685.9	1,977.4
Supplementary Cards ¹ ('000)	577.4	626.4	681.5	725.7	775.1	837.0
Total Card Billings (\$m)	6,985.9	7,915.1	7,689.1	8,948.3	10,557.2	11,068.9
Rollover Balance ¹ (\$m)	893.6	1,035.3	1,113.4	1,371.2	1,724.3	2,100.9
Bad Debts Written Off (\$m)	24.0	31.6	53.6	67.8	62.1	79.5

Source : Monetary Authority of Singapore

¹ As at end of period.

all for the Year of Assessment 2001, the corporate income tax rate is 28 per cent. There are various tax incentives in the form of tax exemptions and concessionary tax rates to promote capital investment, export of services, development of financial and consultancy services, research and development and overseas ventures.

The Development Fund is established by the Development Fund Act. The Development Financial Statements cover the period from 1 April of the year to 31 March of the following year. Data are obtained from ministries and captured into the government's accounting system which produces the actual figures for the Development Fund.

Government revenue is credited to and current expenditure paid out of the Consolidated Revenue Account.

Development Fund

The Development Fund is established by the Development Fund Act.

The Development Fund in the Government Financial Statements covers the period from 1 April of the year to 31 March of the following year. Data are obtained from ministries and captured into the government's accounting system which produces the actual figures for the Development Fund.

Government Revenue and Expenditure

(i) **Income Tax** The Inland Revenue Department (IRD) is responsible for the collection of income tax. The IRD is responsible for the collection of income tax, property tax, goods and services tax, estate and stamp duties, duties on sweepstakes and lotteries. It also

assesses and collects all such dues are promptly collected.

(ii) **Personal Income Tax** Residents of Singapore pay personal income tax at progressive rates on the basis of the preceding year after appropriate deductions have been made. Residents in this context refer to persons having stayed in Singapore for a period of 6 months or more during the reference year. For the Year of Assessment 2001, the tax rates range from 2 per cent to 28 per cent and a one-off tax rebate of 12 per cent is given. This one-off tax rebate is given in addition to the \$500 rebate granted to offset the Goods and Services Tax (GST). Deductions include allowances for personal relief, earned income, maintenance of wife, children and dependants, delivery and hospitalisation expenses for a new born fourth child, life insurance premiums, contributions to the Central Provident Fund (CPF) or other approved pension or provident funds, payments to top up an individual's, his parents' or his grandparents' retirement account under the CPF Minimum Sum Scheme, course fees and foreign maid levy. Special rebates are also available for newborn second, third and fourth children. Non-resident individuals are not entitled to personal reliefs and are normally taxed at a flat rate (15 per cent on employment income and from the Year of Assessment 2001, 25.2 per cent on other income).

Government Revenue and Expenditure

The main revenue-collecting agencies are the Customs and Excise Department and the Inland Revenue Authority of Singapore (IRAS). The former is responsible for the collection of import and excise duties on liquor, tobacco, petroleum, motor vehicles, film hire and entertainment duties. The IRAS is responsible for the collection of income tax, property tax, goods and services tax, estate and stamp duties, duties on sweepstakes and lotteries. It also ensures that liabilities of all persons for tax, duty, levy or fee are speedily and correctly assessed, and that all such dues are promptly collected.

Residents of Singapore pay personal income tax at progressive rates on the income of the preceding year after appropriate deductions have been made. Residents in this context refer to persons having stayed in Singapore for a period of 6 months or more during the reference year. For the Year of Assessment 2001, the tax rates range from 2 per cent to 28 per cent and a one-off tax rebate of 15 per cent is given. This one-off tax rebate is given in addition to the \$500 rebate granted to offset the Goods and Services Tax (GST). Deductions include allowances for personal relief, earned income, maintenance of wife, children and dependants, delivery and hospitalisation expenses for a new born fourth child, life insurance premiums, contributions to the Central Provident Fund (CPF) or other approved pension or provident funds, payments to top up an individual's, his parents' or his grandparents' retirement account under the CPF Minimum Sum Scheme, course fees and foreign maid levy. Special rebates are also available for newborn second, third and fourth children. Non-resident individuals are not entitled to personal reliefs and are normally taxed at a flat rate (15 per cent on employment income and from the Year of Assessment 2001, 25.5 per cent on other income).

For the Year of Assessment 2001, the corporate income tax rate is 25.5 per cent. There are various tax incentives in the form of tax exemptions and concessionary tax rates to promote capital investments, export of services, development of financial and consultancy services, research and development and overseas ventures.

The government has concluded comprehensive agreements for the avoidance of double taxation with 43 countries.

A 3 per cent Goods and Services Tax (GST) has been introduced since 1 April 1994 to broaden the revenue base and to shift the reliance from direct taxes to indirect taxes. The tax is imposed on almost all goods and services supplied in Singapore except the sale and lease of residential properties and certain financial services which are exempted. International services and exports of goods are zero-rated (i.e. GST is charged at zero per cent).

Government revenue is credited to and current expenditure paid out of the Consolidated Revenue Account.

Development Fund

The Development Fund is established by the Development Fund Act.

The Development Fund in the Government Financial Statements covers the period from 1 April of the year to 31 March of the following year. Data are obtained from ministries and captured into the government's accounting system which produces the actual figures for the Development Fund.

17 PUBLIC FINANCE (cont'd)

The sources of funds for the Development Fund are:

- (i) moneys appropriated from time to time from the Consolidated Fund;
- (ii) proceeds of any loan raised for the purposes of the fund and appropriated to such purposes by the law raising the loan;
- (iii) interest and other incomes from investments of the fund and profits arising from realisation of any such investments; and
- (iv) re-payments of any loans made from the fund or payments of interest on such loans.

The Fund may be used for:

- (i) construction, improvement, acquisition or replacement of capital assets (eg buildings, vehicles, aircraft, machinery, rolling-stock, roads) required in respect of or in connection with the economic development or general welfare of Singapore;
- (ii) acquisition of land and of any right or interest in or over land and in respect of the use of any invention; and
- (iii) grants and loans to, or investments in any public authority or corporation for any of the purposes mentioned in (i) and (ii) above.

17.1 GENERAL GOVERNMENT FINANCE

Million Dollars

	1998	1999	2000
Deficit (-) or Surplus	4,714	10,004	16,016
Total Revenue and Grants	43,073	44,007	48,400
Revenue ¹	43,073	44,007	48,400
Grants	-	-	-
Expenditure & Lending minus			
Repayments	38,359	34,003	32,384
Expenditure ²	27,479	26,254	30,121
Lending minus Repayments	10,880	7,749	2,263
Total Financing	-4,714	-10,004	-16,016
Domestic Financing	-4,714	-10,004	-16,016
From Monetary Authorities	2,295	-2,125	-14,674
From Deposit Money Banks	1,536	4,882	5,238
Other Domestic Financing	-8,545	-12,761	-6,580
Foreign Financing	-	-	-

Source : Accountant-General's Department

- 1 Data refer to the financial year which begins in April of the current year and ends in March of the following year.
- 2 General government finance includes budgetary and extra-budgetary accounts.

17.2 GOVERNMENT FINANCE

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Deficit (-) or Surplus	6,992.3	21,275.1	17,780.9	23,163.5	14,577.8	18,092.1	-1,358.2
Total Revenue and Grants	21,402.2	50,022.9	61,151.4	59,725.2	49,949.1	52,254.6	34,821.9
Revenue ¹	21,402.2	50,022.9	61,151.4	59,725.2	49,949.1	52,254.6	34,821.9
Grants	-	-	-	-	-	-	-
Expenditure & Lending minus							
Repayments	14,409.9	28,747.8	43,370.5	36,561.7	35,371.3	34,162.5	36,180.1
Expenditure ²	13,892.2	20,680.9	30,541.7	25,588.3	26,664.2	30,069.9	35,277.3
Lending minus Repayments	517.7	8,066.9	12,828.8	10,973.4	8,707.1	4,092.6	902.8
Total Financing	-6,992.3	-21,275.1	-17,780.9	-23,163.5	-14,577.8	-18,092.1	1,358.2
Total Net Borrowing	8,626.5	10,861.6	11,411.9	22,537.9	17,146.6	16,484.2	7,278.2
Use of Cash Balances	-15,618.8	-32,136.7	-29,192.8	-45,701.4	-31,724.4	-34,576.3	-5,920.0
Use of Foreign Exchange	-7,965.3	-21,716.7	-27,258.9	-42,128.8	-35,032.7	-19,644.1	6,264.6
Use of Domestic Cash Balances	-7,653.5	-10,420.0	-1,933.9	-3,572.6	3,308.3	-14,932.2	-12,184.6

Source : Ministry of Finance

- 1 Revenue refers to receipts credited to the Consolidated Revenue Account, Development Fund Account and Sinking Fund Account, including investment income, capital receipts and investment adjustments.
- 2 Expenditure refers to the outlays made out from the Consolidated Revenue Account, Development Fund Account and Sinking Fund Account.

17.3 GOVERNMENT OPERATING REVENUE

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Total ¹	14,851.6	28,038.3	30,612.7	28,212.6	28,619.2	33,526.6	30,885.1
Tax Revenue	12,017.0	21,919.5	24,441.4	22,154.2	21,578.1	25,277.4	25,108.8
Income Tax	6,062.9	9,539.0	11,464.3	10,966.0	11,623.5	13,422.9	13,463.8
Corporate & Personal Income Tax	5,346.4	8,904.0	9,520.4	9,798.2	9,315.6	12,230.5	12,601.6
Contributions by Statutory Boards	716.5	635.0	1,943.9	1,167.8	2,307.9	1,192.4	862.2
Assets Taxes	1,295.6	1,629.5	2,403.4	1,849.5	1,181.1	1,484.7	1,694.2
Taxes on Motor Vehicles ²	1,164.3	2,443.5	1,765.8	1,547.5	1,337.2	2,179.7	2,473.3
Customs & Excise Duties	1,370.2	1,646.4	1,676.5	1,611.9	1,536.5	1,766.2	1,840.2
Betting Taxes	587.7	1,151.4	1,256.7	1,266.6	1,309.3	1,452.2	1,573.5
Stamp Duty	589.0	1,834.5	1,694.5	1,080.8	1,280.1	1,380.0	834.9
Goods & Services Tax ³	-	1,788.3	1,989.2	1,688.8	1,776.7	2,244.0	2,013.0
Others	947.3	1,886.9	2,191.0	2,143.1	1,533.7	1,347.7	1,215.9
Fees & Charges	1,644.7	4,055.9	4,030.5	3,354.9	3,732.8	5,572.3	4,946.6
Other Receipts ⁴	1,189.9	2,062.9	2,140.8	2,703.5	3,308.3	2,676.9	829.7

Source : Ministry of Finance

1 Operating revenue refers to receipts credited to the Consolidated Revenue Account and Development Fund Account, but excludes Investment Income and Capital Receipts.

2 Taxes on motor vehicles comprise additional registration fees, road tax, special tax on heavy-oil engine, passenger vehicle seating fees and non-motor vehicle licences, but exclude import duties on motor vehicles which are classified under Customs and Excise Duties.

3 Goods and Services Tax was implemented on 1 April 1994.

4 Other Receipts exclude repayment of direct loans and advances. Interest on Loans is excluded with effect from April 2001.

17.4 GOVERNMENT OPERATING EXPENDITURE

Million Dollar

	1991	1996	1997	1998	1999	2000	2001
Total ¹	7,805.3	12,253.6	15,159.0 ³	14,236.3	13,907.4	18,896.9	17,845.5
Security & External Relations	3,847.2	6,325.8	6,804.7	7,338.1	7,215.0	9,043.7	8,890.0
Social Development	3,097.9	4,656.5	5,532.6	5,490.3	5,082.3	6,180.0	7,093.5
Education	1,892.7	2,848.4	3,352.6	3,327.5	2,967.2	3,901.9	4,366.2
Health	484.8	701.8	979.2	934.2	874.7	990.2	1,203.9
Community Development & Sports	)	254.3	269.4	310.4	326.4	386.4	515.4
Information, Communications & The Arts	) 203.1						
Environment		143.8	168.6	196.8	200.4	225.9	228.6
National Development	200.5	289.6	303.9	319.1	321.9	357.2	413.3
Economic Development	316.7	418.7	458.8	402.4	391.8	318.3	366.1
Communications & Information Technology	170.0	642.0	698.5	740.0	920.6	2,920.3	1,053.2
Transport	33.0	277.4	311.4	317.7	458.0	2,427.8	386.2
Trade & Industry	-	-	-	-	-	-	69.0
Manpower	109.7	315.8	336.5	334.7	340.8	391.3	484.1
Info-Communications Technology ²	27.3	48.8	50.6	87.6	121.9	101.2	113.7
Government Administration	-	-	-	-	-	-	0.2
Pensions	413.2	629.3	623.3	667.9	689.4	752.9	808.8
	277.0	-	-	-	-	-	-

Source : Ministry of Finance

Notes :

- Refinements have been made to the sectoral classification of ministries from FY2001. The Ministry of Foreign Affairs has been shifted to the newly renamed "Security and External Relations" sector, while the Ministry of National Development has been transferred to the "Social Development" sector. These changes have been made to better reflect the main functions of the two ministries. For the same reason, the sector "General Services" has also been renamed "Government Administration"
 - The Ministry of Communications and Information Technology was renamed the Ministry of Transport in November 2001. Its portfolio of Information Technology and Telecommunications had been transferred to the Ministry of Information and the Arts which was also renamed Ministry of Information, Communications and the Arts.
- Government operating expenditure refers to expenditure on manpower, other operating expenditure (excluding expenses on investment and agency fees on land sales), grants-in-aid and pensions (up to first quarter 1995).
 - Expenditure on Info-Communications Technology was previously included in Ministry of Communications & Information Technology.
 - Figure for 1997 includes one-off compensation of \$1.5 billion paid to Singapore Telecom for early termination of its exclusive telecommunication privileges.

17.5 GOVERNMENT DEVELOPMENT EXPENDITURE

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Total ¹	3,524.7	6,920.7	10,705.9	10,557.2	11,039.3	9,077.6	9,998.6
Security & External Relations	399.9	796.6	1,221.5	1,326.9	1,563.2	1,577.4	1,467.8
Social Development	1,926.9	3,309.0	3,016.0	4,534.5	5,596.1	4,189.3	4,726.1
Education	371.7	646.4	968.1	1,496.1	1,617.2	1,547.2	1,643.2
Health	135.6	356.1	282.9	263.0	146.6	163.0	136.7
Community Development & Sports	)	542.8	164.0	126.8	116.3	100.7	118.4
Information, Communications & The Arts	)	63.6	47.9	116.9	139.3	127.8	161.2
Environment	501.9	520.6	649.2	907.3	1,046.4	579.6	552.1
National Development	854.2	1,195.2	834.9	1,588.6	2,530.2	1,671.0	2,114.5
Economic Development	1,006.4	1,812.1	3,008.7	3,964.5	2,888.9	2,995.0	3,460.0
Communications & Information Technology	777.1	787.5	1,261.5	1,734.5	538.9	830.2	1,669.2
Transport	-	-	-	-	-	-	126.0
Trade & Industry	227.7	1,023.6	1,744.3	2,225.0	2,338.7	2,151.8	1,607.6
Manpower	1.5	0.9	2.9	5.0	11.3	13.1	57.2
Government Administration	191.6	1,003.0	3,459.8	731.2	991.1	315.9	344.7

Source : Ministry of Finance

Notes :

- (a) Refinements have been made to the sectoral classification of ministries from FY2001. The Ministry of Foreign Affairs has been shifted to the newly renamed "Security and External Relations" sector, while the Ministry of National Development has been transferred to the "Social Development" sector. These changes have been made to better reflect the main functions of the two ministries. For the same reason, the sector "General Services" has also been renamed "Government Administration"
- (b) The Ministry of Communications and Information Technology was renamed the Ministry of Transport in November 2001. Its portfolio of Information Technology and Telecommunications had been transferred to the Ministry of Information and the Arts which was also renamed Ministry of Information, Communications and the Arts.

¹ Government development expenditure excludes loans to statutory boards and industrial and commercial enterprises.

From FY2001, land-related expenditure items are no longer classified under Development Expenditure.

These expenditures are therefore excluded from the period April to December 2001.

17.6 SOURCES AND USES OF DEVELOPMENT FUND

Million Dollar

	1991	1996	1997	1998	1999	2000	2001
Balance (Beginning of Financial Year)	48,962	25,770	24,073	23,037	31,721	42,613	52,728
Sources							
Total	5,312	18,333	24,597	35,349	33,042	27,631	5,855
Consolidated Revenue Account	-	12,331	17,729	25,096	22,985	17,461	-
Consolidated Loan Account	2,099	-	-	-	-	-	-
Others	3,213	6,002	6,868	10,253	10,057	10,170	5,855
Uses							
Total	5,597	20,030	25,632	26,665	22,149	17,516	12,571
Government Development Expenditure	3,601	9,128	8,963	12,282	10,211	9,494	7,268
Loans to Statutory Boards & Enterprises	1,996	10,902	16,669	14,383	11,938	8,022	5,303
Others	-	-	-	-	-	-	-

Source : Accountant-General's Department

Note : Data refer to the financial year which begins in April of the current year and ends in March of the following year.

Data for 2001 refer to the period from 1 April 2001 to 31 December 2001.

17.7 GOVERNMENT DEBT BY INSTRUMENT (End of Period)

Million Dollar

	1991	1996	1997	1998	1999	2000	2001
Total	59,041.1	94,830.7	102,371.9	115,183.4	125,777.1	134,370.4	146,995.5
Domestic Debt	59,000.3	94,830.7	102,371.9	115,183.4	125,777.1	134,370.4	146,995.5
Registered Stocks & Bonds	41,810.2	67,853.9	73,305.7	80,667.4	86,548.1	91,011.2	103,131.2
Treasury Bills	3,470.0	5,990.0	6,920.0	8,540.0	12,160.0	13,380.0	14,650.0
Advance Deposits	13,720.1	20,986.8	22,146.2	25,976.0	27,069.0	29,979.2	29,214.3
External Debt ¹	40.8	-	-	-	-	-	-
UK Special Aid	25.2	-	-	-	-	-	-
World Bank	8.2	-	-	-	-	-	-
Asian Development Bank	6.4	-	-	-	-	-	-
Others	1.0	-	-	-	-	-	-
Memorandum item :							
Debt Guarantees	-	-	660.0	510.0	1,564.2	350.4	317.3

Source : Accountant-General's Department

Monetary Authority of Singapore

¹ Figures were computed at market rates.

17.8 GOVERNMENT DEBT BY MATURITY

(End of Period)

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Domestic Debt (excluding Advance Deposits)							
1 year maturity or less	45,280.2	73,843.9	80,225.7	89,207.4	98,708.1	104,391.2	117,781.2
More than 1 year maturity	6,620.0	10,998.2	12,358.4	15,089.2	19,797.0	20,460.0	22,786.8
External Debt ¹	38,660.2	62,845.7	67,867.3	74,118.2	78,911.1	83,931.2	94,994.4
1 year maturity or less	40.8	-	-	-	-	-	-
More than 1 year maturity	-	-	-	-	-	-	-

Source : Accountant-General's Department

Monetary Authority of Singapore

¹ Figures were computed at market rates.

17.9 REVENUE COLLECTED BY CUSTOMS AND EXCISE DEPARTMENT

	Million Dollars						
	1991	1996	1997	1998	1999	2000	2001
Total	1,414	1,682	1,698	1,646	1,584	1,789	1,894
Import & Excise Duties							
Liquors	234	327	359	337	343	340	347
Tobacco	307	394	405	419	427	452	518
Petroleum	534	587	615	589	462	485	482
Motor Vehicles	249	340	289	269	317	473	507
Others	55	3	2	3	4	5	5
Entertainment Duties	14	5	5	4	5	7	5
Film Hire Duty	6	-	-	-	-	-	-
Licence Fees	9	16	15	15	15	16	21
Anti-Dumping Duty ¹	-	2	2	1	1	-	-
Miscellaneous Receipts	6	9	7	10	11	11	9

Source : Customs and Excise Department

¹ Duty collected with effect from 27 January 1995 for selected items.

17.10 REVENUE COLLECTED BY INLAND REVENUE AUTHORITY

Million Dollars

	1991	1996	1997	1998	1999	2000	2001
Total	7,850	15,279	16,857	15,628	15,081	18,734	18,568
Income Tax	5,340	8,893	9,533	9,731	9,444	12,209	12,522
Property Tax	1,249	1,564	2,356	1,809	1,147	1,409	1,578
Goods & Services Tax ¹	-	1,761	1,959	1,722	1,806	2,231	2,005
Estate Duty	46	76	55	44	46	84	91
Stamp Duty	593	1,843	1,699	1,063	1,313	1,381	798
Betting Duties	533	941	1,027	1,037	1,081	1,188	1,314
Private Lotteries Duties	81	203	228	222	243	232	260
Others ²	8	-	-	-	-	-	-
Miscellaneous Receipts ³	-	-	-	-	-	1	1

Source : Inland Revenue Authority of Singapore.

1 Goods & Services tax was implemented on 1 April 1994.

2 Include Skills Development Levy. With effect from June 1991, exclude Skill Development Levy as Inland Revenue Authority is no longer collecting this item.

3 Prior to April 1999, it was included under Property Tax.

17.11 TAXABLE INDIVIDUALS BY ASSESSED INCOME GROUP, 2000

	Assessed Income Group (\$)							
	Total	20,000 & below	20,001-25,000	25,001-30,000	30,001-40,000	40,001-50,000		
Taxpayers (No)	633,959	12,977	41,841	80,667	157,614	97,480		
Resident	625,060	6,599	41,451	80,351	157,156	97,151		
Non-resident	8,899	6,378	390	316	458	329		
Assessable Income (\$m)	42,178	169	960	2,220	5,456	4,342		
Resident	41,984	129	951	2,211	5,440	4,327		
Non-resident	194	40	9	9	16	15		
Net Tax Assessed (\$m)	3,250	7	6	16	66	87		
Resident	3,215	-	5	15	63	85		
Non-resident	35	7	2	1	3	3		

	Assessed Income Group (\$)					
	50,001-60,000	60,001-80,000	80,001-100,000	100,001-200,000	200,001-1,000,000	1,000,001 & above
Taxpayers (No)	60,171	68,773	34,458	53,711	25,200	1,067
Resident	59,914	68,464	34,297	53,470	25,142	1,065
Non-resident	257	309	161	241	58	2
Assessable Income (\$m)	3,289	4,713	3,076	7,361	8,442	2,150
Resident	3,275	4,692	3,062	7,328	8,422	2,147
Non-resident	14	21	14	32	20	3
Net Tax Assessed (\$m)	96	198	186	751	1,449	385
Resident	94	194	183	746	1,445	385
Non-resident	3	4	3	5	3	1

Source : Inland Revenue Authority of Singapore

17.12

TAXABLE COMPANIES BY ASSESSED INCOME GROUP, 2000

	Assessed Income Group (\$)					
	Total	10,000 & below	10,001-20,000	20,001-30,000	30,001-60,000	60,001-100,000
Companies (No)	23,546	5,691	2,325	1,604	2,916	2,104
Resident	22,318	5,452	2,208	1,528	2,755	1,979
Non-resident	1,228	239	117	76	161	125
Assessable Income (\$m)	32,075	24	35	41	128	167
Resident	29,354	23	33	39	121	157
Non-resident	2,721	1	2	2	7	10
Net Tax Assessed (\$m)	6,782	6	9	11	33	43
Resident	6,288	6	9	10	31	41
Non-resident	494	-	-	1	2	2

	Assessed Income Group (\$)					
	100,001-300,000	300,001-500,000	500,001-1,000,000	1,000,001-3,000,000	3,000,001-5,000,000	5,000,001 & above
Companies (No)	3,594	1,316	1,407	1,413	384	792
Resident	3,396	1,244	1,334	1,336	358	728
Non-resident	198	72	73	77	26	64
Assessable Income (\$m)	645	515	1,018	2,446	1,484	25,572
Resident	611	487	966	2,315	1,382	23,220
Non-resident	34	28	52	131	102	2,352
Net Tax Assessed (\$m)	165	131	257	608	361	5,158
Resident	156	124	244	576	336	4,755
Non-resident	9	7	13	32	25	403

Source : Inland Revenue Authority of Singapore

has revealed the frequency of pricing dependence on the price sensitivity of the market. To ensure greater accuracy, items with relatively stable prices are priced more frequently. Prices for perishable food items such as fish, vegetables, meat and poultry are collected twice every week. For provision items, sundries, clothing, footwear and household items, whose prices are more stable, they are priced once a month. For items with infrequent price fluctuations, e.g. household durables, building changes, transport, their prices are obtained quarterly yearly or at intervals of six months. Items with stable prices are selected for regular pricing.

Wholesale Price Indices

The price indices consist of the Domestic Supply Price Index and Index on Manufactured Products. For imported products and exported products, the prices are valued at cost, insurance and freight; for exported products, they refer to fob (free on board) prices; and for locally manufactured products, they are ex-factory prices. The indices are compiled monthly using the fixed-weighted Laspeyres' formula. The base year for the Wholesale Price Indices is 1992.

The list of items and weighting patterns for the Singapore manufactured products were derived from data collected in the 1992 Census of Industrial Production, while the weights for the exported and imported products were derived from exports and imports statistics for 1992. The weights for the Domestic Supply Price Index were made proportionate to the combined value of retained imports and locally manufactured goods sold in the domestic market.

Data are collected monthly by mail from importers, exporters and manufacturers. Indices at commodity division level are published in the Department's "Monthly Digest of Statistics". Details on methodology

of the Consumer Price Index (CPI) by Department of Statistics (Singapore) are published in the Department's "Monthly Digest of Statistics". The price changes over time of a fixed basket of goods and services commonly bought by the majority of the households. The latest series was compiled based on the 1992 Household Expenditure Survey conducted from November 1992 to October 1993. The expenditure weights are 1992 household monthly expenditure weights. The weighting pattern as well as the composition of goods and services in the CPI basket. These households constituted the central 90 per cent of all households surveyed. The remaining bottom 5 per cent and top 5 per cent of the households were excluded as the consumption patterns of these households differed greatly from the average households.

The CPI is compiled monthly by the Singapore Department of Statistics using the base-weighted Laspeyres' formula. The yearly index is the simple average of the twelve monthly indices. This yearly index is compared with that of the preceding year to obtain the annual rate of inflation for the year.

The monthly CPI is published in the Department's "Monthly Digest of Statistics". More detailed CPI data and analysis of consumer price changes are available in the monthly report on the Consumer Price Index. Information on the methodology can be obtained from the publication "The Consumer Price Index, Singapore, based on Household Expenditure Survey 1992/93".

Retail Prices

Retail prices of selected goods are collected regularly from markets, supermarkets, provision shops, econ-mini marts and other retail outlets located in various housing estates and retail centres. With effect from 1 April 1994, retail prices refer to total prices inclusive of goods and services tax.

Consumer Price Index (CPI)

The Consumer Price Index measures the price changes over time of a fixed basket of goods and services commonly bought by the majority of the households. The latest series was compiled based on the results of the seventh Household Expenditure Survey conducted from November 1997 to October 1998. The expenditure records of 5,487 households with monthly expenditure of \$1,010-\$9,540 were used to derive the weighting pattern as well as the composition of goods and services in the CPI basket. These households constituted the central 90 per cent of all households surveyed. The remaining bottom 5 per cent and top 5 per cent of the households were excluded as the consumption pattern of these households differed greatly from the average households.

The CPI is compiled monthly by the Singapore Department of Statistics using the base-weighted Laspeyres' formula. The yearly index is the simple average of the twelve monthly indices. This yearly index is compared with that of the preceding year to obtain the annual rate of inflation for the year.

The monthly CPI is published in the Department's "Monthly Digest of Statistics". More detailed CPI data and analysis of consumer price changes are available in the monthly report on the Consumer Price Index. Information on the methodology can be obtained from the publication "The Consumer Price Index, Singapore, based on Household Expenditure Survey 1997/98".

Retail Prices

Retail prices of selected goods are collected regularly from markets, supermarkets, provision shops, econ-mini marts and other retail outlets located in various housing estates and retail centres. With effect from 1 April 1994, retail prices refer to total prices inclusive of goods and services tax.

The frequency of pricing depends on the price stability of the items. To ensure greater accuracy, items with volatile prices are priced more frequently. Prices of perishable food items such as fish, vegetables, meat and poultry are collected thrice every week. For provision items, sundries, clothings, consumer durables etc. whose prices are more stable, they are priced once a month. For items with infrequent price fluctuations eg. house rents, school fees, utilities charges, bus fares, their prices are obtained quarterly, yearly or as and when their prices are revised. A total of 4,940 items or varieties are selected for regular pricing.

Wholesale Price Indices

The price indices consist of the Domestic Supply Price Index and Indices on Singapore manufactured products, imported products and exported products. For imported products, the prices are valued at cif (cost insurance and freight); for exported products, they refer to fob (free on board) prices; and for locally manufactured products, they are ex-factory prices. The indices are compiled monthly using the fixed-weighted Laspeyres' formula. The base year for the Wholesale Price Indices is 1995.

The list of items and weighting patterns for the Singapore manufactured products were derived from data collected in the 1995 Census of Industrial Production, while the weights for the exported and imported products were derived from exports and imports statistics for 1995. The weights for the Domestic Supply Price Index were made proportionate to the combined value of retained imports and locally manufactured goods sold in the domestic market.

Data are collected monthly by mail from importers, exporters and manufacturers. Indices at commodity division level are published in the Department's "Monthly Digest of Statistics". Details on methodology,

18 PRICES (cont'd)

commodity coverage, weighting pattern and methods of computation can be found in the Information Paper : Rebasing and Revision of Wholesale Price Indices (1995=100).

Other Price Indices

Data on selected farm products are obtained from the Agri-food & Veterinary Authority of Singapore. The collection and compilation of data for the Property Price Index and Commercial Property Rental Index are

undertaken by the Urban Redevelopment Authority (URA) and Building Materials Price Index by the Building and Construction Authority.

Produce Prices

Prices of rubber are obtained weekly from the Singapore Commodity Exchange. Weekly prices for other types of produce are obtained from the Singapore Chinese Produce Exchange.

18.1 CONSUMER PRICE INDEX

	Weights ¹	1991	1996	1997	1998	1999	2000	2001
November 1997 - October 1998=100								
All Items	10,000	88.1	98.0	100.0	99.7	99.8	101.1	102.1
Food	2,752	88.5	97.7	99.7	99.9	100.8	101.4	101.9
Clothing	443	93.1	100.4	101.1	99.8	97.9	97.1	97.5
Housing	2,292	88.7	95.9	98.1	99.9	98.6	100.6	101.8
Transport & Communications	1,803	88.3	100.4	104.3	99.2	98.7	100.7	99.4
Education	729	80.3	95.6	97.1	100.1	101.6	102.9	105.1
Health	305	81.1	92.7	96.1	100.2	100.8	102.3	105.7
Miscellaneous	1,676	88.0	100.4	100.6	99.5	100.3	101.9	105.2
Percentage Change Over Previous Year								
All Items	10,000	3.4	1.4	2.0	-0.3	0.0	1.3	1.0
Food	2,752	1.5	2.1	2.0	0.2	0.9	0.6	0.5
Clothing	443	1.7	0.5	0.7	-1.3	-1.9	-0.8	0.5
Housing	2,292	1.8	0.5	2.3	1.9	-1.4	2.0	1.3
Transport & Communications	1,803	7.0	0.4	3.9	-4.9	-0.6	2.1	-1.4
Education	729	7.1	3.0	1.5	3.1	1.5	1.3	2.2
Health	305	9.0	2.3	3.7	4.3	0.6	1.5	3.3
Miscellaneous	1,676	4.8	1.8	0.2	-1.1	0.8	1.5	3.2

- 1 Derived by relating expenditure on the item to the total monthly household expenditure based on the results of the Household Expenditure Survey conducted during November 1997 to October 1998. The weights refer to the consumption pattern of 1997/98 and are used in the computation of the indices for the years from 1998 to 2001. Indices for the years 1991 and 1996-1997 relate to the consumption patterns of 1987/88 and 1992/93 respectively.

18.2

CONSUMER PRICE INDEX FOR HOUSEHOLDS IN DIFFERENT
INCOME GROUPS

Income Group	All Items	Food	Clothing	Housing	Transport & Comm - unications	Education & Stationery	Health	Miscel- laneous
Weights ¹ Per 10,000								
Lowest 20%	10,000	3,323	361	2,635	1,369	687	373	1,252
Middle 60%	10,000	2,759	452	2,061	2,136	677	339	1,576
Highest 20%	10,000	1,797	380	2,251	2,779	734	308	1,751
Consumer Price Index (Nov 97-Oct 98 = 100)								
1998								
Lowest 20%	99.9	99.9	99.8	100.0	99.8	100.1	100.3	99.8
Middle 60%	99.6	99.9	99.8	99.9	98.5	100.1	100.1	99.6
Highest 20%	99.2	100.0	99.6	99.9	97.8	100.0	100.2	99.3
1999								
Lowest 20%	100.4	100.8	98.0	99.9	98.9	103.3	100.9	100.7
Middle 60%	100.0	100.8	97.9	99.4	99.2	101.6	100.3	100.5
Highest 20%	99.2	101.0	97.6	96.4	99.5	101.2	100.4	100.0
2000								
Lowest 20%	102.0	101.3	97.2	102.9	101.1	104.7	102.2	102.9
Middle 60%	101.4	101.3	97.1	101.9	100.6	102.9	102.0	102.2
Highest 20%	99.9	101.6	97.4	96.7	99.9	102.7	101.9	101.1
2001								
Lowest 20%	103.3	101.5	97.8	104.2	101.4	107.1	105.3	107.1
Middle 60%	101.8	101.8	97.5	103.0	97.0	105.1	105.5	105.6
Highest 20%	99.7	102.4	98.2	98.5	94.3	105.0	106.0	103.8
Percentage Change Over Previous Year								
1999								
Lowest 20%	0.5	0.9	-1.8	-0.1	-0.8	3.2	0.6	0.9
Middle 60%	0.5	0.9	-1.9	-0.5	0.8	1.5	0.2	0.9
Highest 20%	-	1.0	-2.0	-3.6	1.7	1.3	0.3	0.7
2000								
Lowest 20%	1.6	0.5	-0.8	3.0	2.2	1.4	1.3	2.1
Middle 60%	1.3	0.5	-0.8	2.5	1.3	1.3	1.7	1.7
Highest 20%	0.7	0.6	-0.3	0.3	0.4	1.5	1.5	1.1
2001								
Lowest 20%	1.3	0.2	0.6	1.2	0.4	2.3	3.0	4.2
Middle 60%	0.4	0.4	0.4	1.1	-3.5	2.1	3.4	3.3
Highest 20%	-0.2	0.8	0.8	1.9	-5.6	2.2	4.0	2.7

¹ Derived by relating expenditure on the item to the total monthly household expenditure based on the results of the Household Expenditure Survey conducted during November 1997 to October 1998. The weights refer to the consumption pattern of 1997/98 and are used in the computation of the indices for the years from 1998 to 2001.

18.3

PRICE INDICES OF SELECTED CONSUMER ITEMS

(November 1997-October 1998 =100)

	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Utility								
Water Tariff	70	64.9	70.2	81.4	103.6	125.2	146.5	156.9
Electricity Tariff	194	98.9	98.6	100.7	98.6	93.4	115.1	122.0
Gas Tariff	20	77.8	94.5	99.7	100.0	100.0	109.5	124.5
Liquefied Petroleum Gas	18	95.8	99.7	100.2	99.9	99.6	112.5	124.5
Private Road Transport								
Petrol, Premium	248	95.1	94.4	98.5	98.8	95.4	111.4	108.2
Petrol, Intermediate	6	95.0	93.9	98.5	98.9	95.9	112.3	109.5
Other Running Costs	348	98.3	101.6	101.3	99.7	97.6	96.7	98.7
Education								
Primary School								
Miscellaneous Fees	13	80.6	99.8	100.0	100.0	157.2	157.2	157.2
Secondary, Pre-U & JC								
School & Miscellaneous Fees	23	82.5	98.5	98.6	100.3	126.5	128.0	128.5
Health								
Consultation Fees for Adult & Children at Outpatient Dispensary	93	77.0	88.4	93.7	100.5	102.6	104.5	106.5

- ¹ Derived by relating expenditure on the item to the total monthly household expenditure based on the results of the Household Expenditure Survey conducted during November 1997 to October 1998. The weights refer to the consumption pattern of 1997/98 and are used in the computation of the indices for the years from 1998 to 2001. Indices for the years 1991 and 1996-1997 relate to the consumption patterns of 1987/88 and 1992/93 respectively.

18.4

RETAIL PRICES OF FOOD AND GROCERIES

Dollars

Item	Unit	1991	1996	1997	1998	1999	2000	2001
Rice & Other Cereals								
Thai Rice 100% Fragrant	5 kg pkt	5.75	6.41	7.88	8.78	8.38	8.47	8.07
Instant Noodles	5 pkts	1.76	1.77	1.74	1.68	1.63	1.58	1.53
Ordinary White Bread	400 g	0.72	0.93	0.98	1.24	1.24	1.24	1.26
Vitamin Enriched Bread	400 g	1.28	1.48	1.49	1.33	1.33	1.33	1.33
High Fibre Bread	400 g	na	1.73	1.73	1.66	1.65	1.66	1.68
Chocolate Cake	Per kg	na	26.48	26.88	27.23	27.35	27.81	28.26
Meat & Poultry								
Lean Pork	Per kg	6.02	6.78	6.98	6.72	7.93	8.75	8.51
Pork Rib Bones	Per kg	7.00	7.80	8.03	7.72	9.19	10.18	10.34
Fresh Beef	Per kg	13.04	12.63	12.49	13.16	13.06	13.13	13.11
Fresh Mutton	Per kg	10.44	10.29	10.36	10.34	10.12	10.22	10.35
Hen	Each	4.15	4.41	4.49	4.41	4.51	4.41	4.41
Duck	Each	4.62	5.27	5.38	5.22	5.31	5.22	5.14
Fresh Chicken Wing	Each	0.48	0.48	0.49	0.49	0.52	0.52	0.51
Chicken Extract	½ doz	na	16.83	16.83	14.70	14.65	15.89	16.44
Fish & Other Sea Products								
White Pomfret	Per kg	14.88	18.78	20.03	17.49	17.78	18.23	18.65
Flowery Grouper	Per kg	11.24	13.07	13.98	12.83	12.79	12.69	13.15
Kurau (cut)	Per kg	26.57	37.60	38.11	36.29	35.83	37.95	38.66
Gold Banded Scad (kuning)	Per kg	5.43	5.43	5.83	5.52	5.55	5.37	5.39
Spanish Mackerel (tenggiri)	Per kg	8.50	8.92	9.10	8.29	8.49	8.75	8.82
Golden Snapper	Per kg	na	na	na	13.93	12.93	13.33	14.09
Sea Bream (kerisi)	Per kg	na	6.51	6.93	6.31	6.43	6.58	6.59
Sea Bass	Per kg	9.30	11.23	11.29	9.59	10.06	10.12	9.37
Small Prawns	Per kg	10.91	11.87	12.43	12.30	12.41	12.70	12.59
Medium Prawns	Per kg	14.84	16.25	17.34	17.50	18.00	18.91	18.57
Large Prawns	Per kg	19.13	21.20	22.28	22.24	22.93	24.45	23.59
Squids	Per kg	5.37	7.33	7.57	7.34	7.18	6.74	6.88
Fish Balls	Per 10	1.03	1.05	1.06	1.06	1.06	1.05	1.06
Milk & Eggs								
Fresh Milk	1 litre pkt	3.08	2.54	2.54	2.56	2.46	2.43	2.53
Condensed Milk	397 g tin	1.10	1.01	1.02	1.03	1.02	1.00	0.99
Infant Milk Powder	1 kg tin	17.05	17.24	17.84	18.82	19.19	19.29	19.75
Milk Powder	2 kg tin	15.96	16.95	17.39	17.26	16.25	15.40	15.00
Ice-cream	1.5 litre tub	5.28	5.51	5.49	5.44	5.43	5.17	5.02
Hen Eggs	Per 10	1.48	1.58	1.55	1.47	1.51	1.51	1.44

(continued on next page)

Note : Prices may not be strictly comparable with those published earlier due to changes in specifications.

18.4 RETAIL PRICES OF FOOD AND GROCERIES (continued)

Dollars

Item	Unit	1991	1996	1997	1998	1999	2000	2001
Oils								
Cooking Oil	2 kg bottle	5.18	4.18	4.13	4.18	4.23	3.92	3.65
Corn Oil	2 kg bottle	5.79	5.87	5.91	6.13	6.05	5.96	5.72
Vegetables								
Cabbage	Per kg	1.71	1.88	1.83	1.85	1.75	1.71	1.63
Spinach (bayam)	Per kg	2.10	1.97	1.88	2.15	2.18	2.11	2.03
Small Mustard	Per kg	2.42	2.17	2.04	2.35	2.35	2.26	2.16
Kale	Per kg	3.47	2.78	2.80	3.33	3.16	3.12	3.04
Broccoli	Per kg	6.16	5.51	5.50	5.08	4.86	4.89	4.64
Long Beans	Per kg	2.18	2.56	2.62	2.75	2.76	2.74	2.74
Tomatoes	Per kg	2.26	2.65	2.63	2.74	2.65	2.56	2.42
Potatoes	Per kg	1.09	1.13	1.10	1.17	1.36	1.18	1.14
Large Onions	Per kg	1.13	1.06	1.07	1.84	1.65	1.20	1.16
Garlics	Per kg	3.69	3.05	3.22	3.65	3.44	2.75	2.63
Carrots	Per kg	1.99	2.00	1.99	2.03	2.00	1.97	1.96
Dried Mushrooms	100 g	8.17	7.70	7.55	7.60	7.65	7.36	6.84
Fruits								
Papaya	Per kg	0.92	1.20	1.16	1.25	1.13	1.12	1.12
Bananas (emas)	Per kg	1.26	1.33	1.32	1.32	1.31	1.31	1.30
Watermelon	Per kg	1.31	1.42	1.37	1.35	1.30	1.32	1.25
Orange	Each	0.43	0.33	0.33	0.33	0.34	0.33	0.33
Apple	Each	0.34	0.34	0.33	0.33	0.33	0.33	0.33
Grapes	Per kg	6.44	6.68	6.78	6.70	6.98	6.62	6.92
Pear	Each	0.69	0.67	0.66	0.70	0.71	0.68	0.68
Miscellaneous								
Sugar	2 kg pkt	2.10	2.02	2.00	1.92	1.86	1.74	1.77
Coffee Powder	Per kg	10.58	11.75	11.75	11.75	11.75	11.75	11.75
Instant Coffee	200 g bottle	7.44	7.88	8.03	8.64	7.99	7.85	7.56
Food Beverage	400 g tin	3.48	3.17	3.21	3.30	3.22	3.14	3.12
Aerated Soft Drinks	330 ml can	0.55	0.55	0.55	0.54	0.54	0.54	0.56
Chocolate	100 g bar	1.94	1.75	1.75	1.72	1.79	1.79	1.79

18.5

DOMESTIC SUPPLY PRICE INDEX
(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
All Items	10,000	109.8	97.0	93.1	90.1	92.0	101.3	99.6
Food	305	100.1	101.9	102.9	105.1	105.4	103.3	101.7
Live animals	21	91.8	113.4	107.0	100.2	130.1	121.8	103.0
Meat & meat preparations	30	105.0	101.8	99.0	100.9	102.4	101.1	103.2
Dairy produce & eggs	31	103.2	105.5	100.4	101.1	99.7	101.4	109.6
Fish & fish preparations	44	97.3	99.2	109.5	105.7	103.0	108.2	104.6
Cereals & cereal preparations	47	101.2	102.8	109.8	110.8	105.2	107.2	103.3
Vegetables & fruits	45	106.4	99.0	94.6	100.5	105.5	94.2	96.0
Sugar & sugar preparations	18	93.9	98.1	94.0	95.7	82.5	81.9	84.0
Coffee etc & spices	34	95.5	99.8	105.8	119.8	112.1	102.2	91.7
Animal feeding stuff	4	100.6	101.0	105.4	109.6	108.9	106.1	110.4
Miscellaneous food preparations	31	97.7	101.5	100.8	103.3	106.2	108.9	113.1
Beverages & Tobacco	62	92.9	101.7	101.8	105.4	104.5	105.1	110.6
Beverages	44	93.1	100.3	98.9	99.0	98.8	97.6	97.7
Tobacco & manufactures	18	92.6	105.3	109.0	121.2	118.9	123.9	142.7
Crude Materials	96	96.7	102.0	100.7	91.4	83.6	86.3	88.2
Hides, skins & furskins raw	1	na	109.1	102.1	93.0	89.6	108.0	101.8
Oil seeds, nuts & kernels	3	100.2	103.6	117.0	107.6	89.5	94.1	88.5
Crude rubber incl synthetic	6	67.5	88.0	67.8	52.8	49.2	52.4	48.4
Cork & wood	18	82.4	97.3	97.1	96.1	97.4	104.6	101.0
Pulp & waste paper	1	na	66.0	53.6	71.4	78.1	109.0	65.6
Textile fibres & waste	3	119.1	134.4	133.7	117.2	119.2	116.5	111.7
Crude fertilizers & minerals	44	120.1	107.3	107.0	89.5	71.0	69.1	74.4
Metallic ores & scrap	10	108.2	92.4	93.4	94.4	95.5	99.2	99.9
Crude materials nec	10	100.8	97.8	97.5	102.2	112.2	122.6	134.3
Mineral Fuels	1,279	130.7	112.0	113.3	89.0	116.6	181.7	162.9
Petroleum & products	1,262	130.7	112.1	113.2	88.6	116.1	181.5	161.9
Gas	17	113.8	105.2	118.9	119.9	154.5	202.3	240.3
Animal & Vegetable Oils	49	71.8	91.6	91.4	104.9	95.5	80.8	73.5
Vegetable oil unprocessed	22	69.4	96.2	94.4	103.6	100.2	90.2	83.5
Other animal & vegetable oils	27	74.7	87.9	89.0	106.0	91.5	73.1	65.3

(continued on next page)

- 1 The weight for each commodity item is proportional to the value of its total supply or availability in the domestic market in 1995.

18.5 DOMESTIC SUPPLY PRICE INDEX (continued)

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Chemicals & Chemical Products	672	110.6	94.4	93.1	91.4	94.1	99.8	98.4
Organic chemicals	119	109.6	87.0	89.4	80.1	86.2	103.3	98.9
Inorganic chemicals	40	113.5	99.4	94.7	97.2	96.6	94.3	92.9
Dyes & colours	53	103.8	99.2	96.8	95.9	96.9	94.1	95.2
Medicinal products	90	96.9	98.1	92.4	92.8	93.1	94.9	94.6
Perfume, toilet preparations	43	103.0	98.6	98.0	100.5	99.0	96.4	96.5
Plastics in primary forms	130	97.8	90.6	92.7	87.3	87.4	96.4	93.8
Plastics in non-primary forms	43	109.6	90.6	91.1	90.7	92.0	93.6	97.9
Chemical products nec	154	122.6	98.0	94.2	97.2	104.2	108.9	107.4
Manufactured Goods	1,204	102.4	98.4	96.5	95.6	91.4	93.4	92.2
Leather products nec	3	82.3	100.8	103.1	99.6	89.3	86.7	90.8
Rubber manufactures nec	31	92.9	97.9	96.9	98.8	95.3	95.5	94.1
Wood & cork manufactures	28	93.6	99.5	96.6	85.1	93.4	94.8	91.7
Paper manufactures	146	94.9	96.4	92.7	96.6	98.2	104.9	102.9
Textile manufactures	89	115.7	98.9	99.9	100.1	97.0	97.8	95.5
Non-metal mineral manufactures	229	102.9	102.5	100.8	90.7	78.4	77.8	76.8
Iron & steel	235	110.4	99.0	96.8	99.2	93.7	95.5	92.9
Non-ferrous metals	144	90.8	91.3	90.8	90.2	85.1	91.4	90.3
Metal manufactures	299	99.8	99.0	96.6	98.0	97.1	97.5	97.8
Machinery & Transport								
Equipment	5,357	109.6	93.2	86.5	87.1	85.0	85.8	87.8
Power generating machinery	163	110.7	90.1	87.2	90.2	90.0	90.9	89.6
Industrial machinery	187	99.7	92.5	98.1	97.6	97.8	90.5	85.4
Metalworking machinery	44	86.2	93.0	90.5	93.5	99.1	102.5	99.5
General industrial machinery	297	96.5	98.0	96.3	99.4	102.3	104.6	102.6
Office & data machines	1,651	116.8	91.9	83.4	82.9	77.0	68.3	66.2
Telecommunications apparatus	652	105.2	97.1	95.6	96.1	94.3	95.5	96.2
Electrical machinery nec	2,222	120.2	92.4	83.3	84.1	83.2	91.2	98.4
Road vehicles	141	90.2	96.3	92.7	95.0	100.7	103.2	100.3
Miscellaneous Manufactures	976	102.1	96.2	94.4	93.7	92.8	93.1	92.9
Prefab building, sanitary, lighting	15	98.3	97.8	97.9	96.2	94.9	93.7	92.7
Furniture, bedding, mattresses	67	96.6	99.0	100.5	96.8	94.0	93.7	93.1
Travel goods	22	103.2	96.7	95.9	101.0	105.2	104.6	104.4
Clothing	123	100.2	103.0	99.7	102.2	103.2	100.6	98.0
Footwear	17	103.9	100.8	103.7	104.6	103.3	105.0	104.7
Scientific instruments	166	96.0	97.5	99.6	100.2	102.7	104.2	105.2
Photographic apparatus	98	99.3	99.4	98.6	99.4	97.6	99.2	100.1
Miscellaneous mfd articles nec	468	106.0	92.6	88.8	86.8	84.4	84.8	84.7

18.6

SINGAPORE MANUFACTURED PRODUCTS PRICE INDEX
(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
All Items	10,000	114.6	94.8	87.1	83.4	83.0	88.5	86.6
Food	170	97.0	100.2	102.4	107.8	104.9	102.5	100.2
Meat & meat preparations	16	98.8	102.3	100.7	99.0	104.0	103.8	99.4
Dairy produce & eggs	20	106.5	100.0	99.3	100.3	96.0	96.1	103.9
Fish & fish preparations	4	83.1	100.2	138.0	137.5	139.6	124.5	126.3
Cereals & cereal preparations	37	95.1	101.3	101.3	101.4	98.5	98.9	101.0
Vegetables & fruits	8	98.3	102.1	100.9	100.5	99.4	99.0	99.2
Sugar & sugar preparations	14	97.5	96.2	89.9	90.7	82.8	85.0	88.7
Coffee etc & spices	43	99.7	99.6	109.2	128.3	121.3	112.3	98.0
Animal feeding stuff	6	97.2	99.3	101.8	106.3	104.4	100.4	100.8
Miscellaneous food preparations	22	92.3	100.6	96.6	99.9	101.5	102.8	102.0
Beverages & Tobacco	66	83.0	100.6	101.4	104.0	102.5	105.1	115.0
Beverages	35	90.9	101.1	99.9	98.7	97.9	96.9	96.6
Tobacco & manufactures	31	73.8	99.9	103.3	110.2	107.8	114.7	136.4
Crude Materials	53	92.8	102.8	100.4	93.1	87.9	90.3	94.4
Hides, skins & furskins raw	2	na	92.7	92.0	97.9	97.9	98.3	98.3
Cork & wood	10	91.7	100.4	101.0	101.4	101.4	113.7	117.8
Crude fertilizers & minerals	20	129.2	111.4	113.5	93.2	78.5	75.0	78.4
Metallic ores & scrap	19	109.8	96.2	87.4	88.6	89.0	92.9	98.3
Crude materials nec	2	120.9	96.5	93.3	90.4	96.5	97.2	101.0
Mineral Fuels	1,164	144.1	113.0	115.3	96.6	116.2	172.6	162.1
Petroleum & products	1,099	145.0	113.4	115.1	95.3	114.0	170.8	157.4
Gas	65	107.4	105.2	118.9	119.9	154.5	202.3	240.3
Animal & Vegetable Oils	61	85.3	96.6	101.5	108.5	111.4	103.3	94.7
Vegetable oil unprocessed	36	88.2	98.8	111.2	116.8	122.6	115.7	106.0
Other animal & vegetable oils	25	82.2	93.7	87.9	96.7	95.8	85.8	78.7

(continued on next page)

¹ Based on 1995 production value of the commodity item.

18.6 SINGAPORE MANUFACTURED PRODUCTS PRICE INDEX (continued)

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Chemicals & Chemical Products	602	105.3	93.0	94.7	87.8	90.7	99.7	95.9
Organic chemicals	135	109.8	86.3	96.6	75.1	87.6	115.1	104.2
Inorganic chemicals	24	113.8	103.2	97.1	97.7	94.8	92.7	92.4
Dyes & colours	55	98.1	100.6	101.4	101.1	102.5	98.4	100.0
Medicinal products	75	101.1	99.5	92.7	93.5	94.1	96.5	96.6
Perfume, toilet preparations	29	109.2	97.8	99.2	97.4	96.9	97.5	96.1
Plastics in primary forms	167	103.3	87.3	88.8	81.6	83.5	93.0	86.4
Plastics in non-primary forms	24	105.3	95.3	95.5	94.2	93.5	95.6	96.1
Chemical products nec	93	110.6	98.8	97.9	97.5	94.4	96.0	98.5
Manufactured Goods	883	104.9	99.7	96.9	93.5	88.0	87.3	86.1
Rubber manufactures nec	14	108.0	102.6	103.7	106.3	106.0	108.6	107.7
Wood & cork manufactures	17	93.9	100.2	99.6	98.6	98.1	100.6	100.6
Paper manufactures	98	96.1	100.6	97.6	95.9	93.5	96.1	96.9
Textile manufactures	46	115.2	98.2	97.8	96.4	93.0	91.8	87.5
Non-metal mineral manufactures	164	102.4	103.7	99.5	81.8	65.9	64.7	62.1
Iron & steel	193	117.9	99.7	96.2	97.7	92.0	88.7	85.4
Non-ferrous metals	98	124.2	92.9	92.2	88.8	86.2	87.6	86.6
Metal manufactures	253	103.9	99.3	96.7	97.2	95.2	94.6	95.4
Machinery & Transport								
Equipment	6,412	118.8	90.4	78.3	76.9	73.4	70.9	70.5
Power generating machinery	77	97.5	98.8	101.5	104.3	112.8	115.4	113.0
Industrial machinery	95	100.7	97.9	94.7	92.4	91.4	90.6	89.0
Metalworking machinery	14	102.0	98.6	97.2	92.2	90.1	82.8	75.9
General industrial machinery	191	112.6	99.7	96.1	98.0	100.2	102.1	98.4
Office & data machines	3,255	144.2	85.5	68.2	67.7	62.3	55.2	54.2
Telecommunication apparatus	889	103.9	96.3	92.6	90.3	83.8	83.9	85.6
Electrical machinery nec	1,843	114.9	94.0	85.0	81.9	81.5	85.2	85.5
Road vehicles	48	99.9	99.4	99.3	99.3	110.9	111.8	103.6
Miscellaneous Manufactures	589	107.0	98.6	95.2	95.4	95.0	95.8	95.9
Prefab building, sanitary, lighting	11	93.0	99.0	98.1	93.4	87.5	86.8	85.2
Furniture, bedding, mattresses	46	92.5	99.9	99.8	97.0	97.4	97.7	95.5
Travel goods	3	99.2	96.7	94.9	94.5	94.4	93.3	91.2
Clothing	57	101.3	101.6	97.3	100.9	99.2	95.6	93.9
Footwear	3	104.8	100.9	101.7	101.6	99.6	99.3	99.1
Scientific instruments	72	113.0	102.4	100.4	103.4	102.8	104.0	106.3
Photographic apparatus	26	98.0	98.0	96.6	96.7	93.6	89.7	87.6
Miscellaneous mfd articles nec	371	113.3	97.3	93.1	92.7	92.8	94.8	95.1

18.7 IMPORT PRICE INDEX

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
All Items	10,000	106.8	96.1	92.8	92.0	93.5	101.9	102.1
Food	337	98.9	100.7	104.2	108.6	109.2	105.1	100.9
Live animals	22	91.8	113.4	106.9	100.2	130.0	121.7	102.9
Meat & meat preparations	22	107.1	102.1	99.6	103.7	103.8	102.4	107.7
Dairy produce & eggs	28	100.1	107.7	101.1	101.5	100.0	103.1	114.6
Fish & fish preparations	67	101.4	100.6	108.4	104.3	100.7	110.9	106.1
Cereals & cereal preparations	30	106.5	102.5	111.9	112.8	107.2	110.1	103.3
Vegetables & fruits	73	111.1	98.9	96.8	106.0	112.1	100.2	103.0
Sugar & sugar preparations	13	92.6	101.2	98.5	100.6	84.1	81.1	82.9
Coffee etc & spices	54	78.1	93.2	109.3	128.2	122.4	101.6	76.8
Animal feeding stuff	3	103.3	104.1	111.7	115.1	116.7	116.1	127.0
Miscellaneous food preparations	25	102.7	99.6	101.1	103.9	106.0	107.0	113.5
Beverages & Tobacco	115	104.0	100.6	103.2	111.2	112.2	112.6	115.9
Beverages	49	95.3	98.4	97.8	97.7	98.4	97.8	98.6
Tobacco & manufactures	66	109.8	102.3	107.2	121.1	122.5	123.7	128.7
Crude Materials	176	77.9	98.8	92.5	81.1	75.3	79.4	77.8
Hides, skins undressed	2	75.2	109.1	102.1	93.0	89.6	108.0	101.8
Oil seeds, nuts, kernels	7	100.8	105.6	117.9	107.6	89.6	93.7	89.4
Crude rubber incl synthetic	55	63.2	86.6	68.6	51.8	47.0	51.7	45.9
Cork & wood	29	80.8	97.3	99.1	96.2	96.4	103.9	99.2
Pulp & waste paper	3	na	66.0	53.6	71.4	78.1	109.0	65.6
Textile fibres & waste	10	109.8	150.3	146.9	115.7	117.0	115.2	112.1
Crude fertilizers & minerals	41	110.8	106.4	105.6	88.9	69.9	68.5	74.2
Metallic ores & scrap	10	113.5	89.5	90.8	89.3	90.5	95.6	94.1
Crude materials nec	19	102.4	99.7	91.5	93.8	99.7	105.8	114.3
Mineral Fuels	852	127.6	109.9	112.9	87.0	119.1	189.1	168.0
Petroleum & products	852	127.6	109.9	112.9	87.0	119.1	189.1	168.0
Animal & Vegetable Oils	43	70.1	86.3	89.2	109.5	90.2	67.5	58.2
Vegetable oil unprocessed	18	67.9	90.9	88.2	103.1	94.2	73.4	62.4
Other animal & vegetable oils	25	73.0	82.9	89.8	114.1	87.3	63.2	55.1

(continued on next page)

1 Based on value of the commodity item imported in 1995.

18.7 IMPORT PRICE INDEX (continued)

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Chemicals & Chemical Products	651	111.4	94.9	93.2	95.2	95.9	99.4	99.6
Organic chemicals	137	109.5	88.3	83.0	86.7	84.5	92.8	94.1
Inorganic chemicals	33	111.0	96.6	93.0	98.5	97.7	96.2	94.9
Dyes & colours	41	107.9	95.5	91.8	93.9	93.2	91.6	91.8
Medicinal products	53	97.2	94.5	95.5	94.9	93.4	90.7	87.4
Perfume, toilet preparations	64	103.3	99.0	98.0	102.0	99.6	95.9	96.8
Plastics in primary forms	113	98.8	96.9	102.1	99.2	96.5	103.3	104.4
Plastics in non-primary forms	41	111.8	89.4	90.4	90.1	92.1	95.1	99.4
Chemical products nec	169	123.7	98.2	94.1	97.8	105.5	109.8	108.4
Manufactured Goods	1,148	102.3	96.9	95.7	97.4	94.1	98.0	97.0
Leather products nec	9	82.5	100.8	103.1	99.6	89.3	86.7	90.8
Rubber manufactures nec	47	92.2	97.4	96.2	99.1	92.0	90.9	90.3
Wood & cork manufactures	28	93.1	99.2	94.0	78.5	89.1	89.0	84.7
Paper manufactures	101	93.4	90.2	88.4	96.6	100.7	111.2	108.0
Textile manufactures	183	116.4	100.4	100.2	100.8	99.4	101.0	101.3
Non-metal mineral manufactures	156	103.3	99.9	100.0	99.4	92.2	91.7	93.3
Iron & steel	224	108.7	98.8	96.0	99.2	92.3	97.3	95.5
Non-ferrous metals	227	93.3	91.1	90.3	91.3	84.8	92.4	90.8
Metal manufactures	173	95.0	98.7	97.6	100.7	102.2	104.8	103.9
Machinery & Transport								
Equipment	5,652	107.3	93.5	87.8	89.4	88.2	91.5	95.6
Power generating machinery	253	110.2	92.1	90.1	94.6	94.5	97.7	97.1
Industrial machinery	334	97.8	94.4	101.1	100.5	101.3	96.2	92.2
Metalworking machinery	62	85.1	94.1	92.9	99.2	105.5	109.6	110.8
General industrial machinery	415	93.0	97.6	96.3	99.9	101.8	104.2	103.9
Office & data machines	1,091	113.6	94.5	87.3	87.6	82.6	75.9	75.7
Telecommunications apparatus	798	106.1	95.5	92.8	93.2	92.8	92.1	91.1
Electrical machinery nec	2,473	121.5	91.3	82.2	84.4	82.9	93.3	104.0
Road vehicles	226	87.9	97.3	93.8	95.7	100.9	103.4	100.3
Miscellaneous Manufactures	1,026	102.0	96.7	95.9	96.1	95.3	95.6	95.5
Prefab building, sanitary, lighting	20	100.8	97.2	97.7	96.8	97.7	96.8	95.7
Furniture, bedding, mattresses	37	103.0	99.1	101.0	96.6	96.3	95.6	94.1
Travel goods	25	103.5	96.9	96.1	101.5	106.0	105.4	105.3
Clothing	142	102.3	103.3	100.7	101.9	106.1	103.9	101.6
Footwear	25	104.8	100.4	103.0	103.7	102.8	104.8	104.4
Scientific instruments	198	95.5	95.1	96.9	99.6	101.9	102.5	102.7
Photographic apparatus	200	100.9	99.4	99.0	98.9	97.6	99.8	100.9
Miscellaneous mfd articles nec	379	105.9	93.0	91.0	89.8	85.2	85.3	85.5

18.8

EXPORT PRICE INDEX

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
All Items	10,000	116.1	95.6	90.2	89.2	89.8	95.0	91.3
Food	214	99.2	98.1	105.2	112.4	108.2	105.3	98.9
Dairy produce & eggs	11	104.6	102.6	105.6	106.8	105.1	106.2	108.6
Fish & fish preparations	48	103.1	98.8	107.2	106.2	105.9	119.9	118.6
Cereals & cereal preparations	18	100.5	103.6	104.6	108.6	108.9	109.0	110.6
Vegetables & fruits	37	126.8	101.5	98.6	100.7	97.2	90.5	83.1
Sugar & sugar preparations	6	84.5	106.5	106.0	108.9	98.4	100.1	121.1
Coffee etc & spices	61	82.1	92.2	110.5	132.0	124.4	108.0	88.9
Animal feeding stuff	8	113.0	97.2	97.1	96.5	91.6	91.0	88.1
Miscellaneous food preparations	25	92.6	98.7	100.8	104.8	97.9	95.6	94.8
Beverages & Tobacco	133	103.1	98.7	98.2	101.5	103.2	104.4	107.9
Beverages	51	105.4	97.2	93.8	98.9	100.9	104.7	107.3
Tobacco & manufactures	82	101.7	99.6	101.0	103.2	104.6	104.2	108.3
Crude Materials	145	76.1	88.7	81.5	71.6	68.9	78.1	73.2
Hides, skins undressed	1	117.1	119.4	114.7	113.8	102.0	148.5	113.9
Oil seeds, nuts, kernels	6	117.6	101.7	114.0	110.7	105.0	108.4	110.2
Crude rubber incl synthetic	62	62.9	86.4	68.3	52.5	46.4	50.7	44.9
Cork & wood	18	77.8	108.8	109.6	103.1	105.5	109.9	105.7
Pulp & waste paper	11	82.3	56.8	52.1	48.6	57.6	76.5	60.3
Metallic ores & scrap	29	103.4	85.8	86.1	75.3	71.3	82.8	77.5
Crude materials nec	18	102.7	93.2	95.5	97.0	97.2	118.0	122.3
Mineral Fuels	833	142.9	116.7	112.0	87.5	110.0	173.4	158.9
Petroleum & products	821	143.0	116.8	112.1	87.6	110.1	173.3	158.6
Gas	12	127.9	107.1	103.3	82.0	104.5	176.3	181.6
Animal & Vegetable Oils	40	83.6	91.8	90.4	107.9	86.0	72.4	68.4
Vegetable oil unprocessed	16	83.9	93.9	90.8	109.5	92.6	76.1	70.1
Other animal & vegetable oils	24	83.3	90.3	90.2	106.9	81.7	70.0	67.3

(continued on next page)

1 Based on value of the commodity item exported in 1995.

18.8 EXPORT PRICE INDEX (continued)

(1995=100)

Item	Weights ¹	1991	1996	1997	1998	1999	2000	2001
Chemicals & Chemical Products	641	112.8	92.6	94.6	94.0	95.7	107.2	106.5
Organic chemicals	214	120.7	91.3	91.1	85.0	84.7	98.6	98.1
Inorganic chemicals	22	100.6	95.5	95.6	103.9	105.1	106.5	107.5
Dyes & colours	50	125.1	95.4	94.5	101.1	98.1	98.8	98.6
Medicinal products	52	113.0	100.1	102.6	104.0	95.0	94.2	96.3
Perfume, toilet preparations	58	110.3	96.4	99.1	98.7	105.6	107.9	105.4
Plastics in primary forms	129	107.2	85.4	84.7	79.2	79.7	91.6	85.1
Plastics in non-primary forms	25	99.9	96.5	105.4	105.9	103.8	108.5	110.6
Chemical products nec	91	110.2	96.2	106.1	118.2	132.3	160.8	166.0
Manufactured Goods	695	105.9	98.3	98.8	100.0	97.0	97.9	97.3
Leather products nec	8	115.0	97.7	98.1	98.0	99.8	99.4	138.0
Rubber manufactures nec	35	107.1	100.1	105.4	108.1	106.7	106.6	107.8
Wood & cork manufactures	18	96.0	98.5	99.7	94.6	98.9	102.0	100.4
Paper manufactures	51	95.1	100.7	100.9	108.1	108.1	107.7	110.3
Textile manufactures	141	119.2	97.9	96.2	94.9	90.2	87.8	84.2
Non-metal mineral manufactures	64	101.3	98.6	99.8	102.9	101.9	104.8	103.9
Iron & steel	87	109.8	96.5	93.1	93.2	86.9	91.6	92.3
Non-ferrous metals	163	104.1	96.5	99.4	100.4	96.3	99.5	97.2
Metal manufactures	128	100.7	100.4	101.4	103.6	102.2	101.0	101.2
Machinery & Transport								
Equipment	6,520	119.0	92.5	84.6	85.7	84.2	82.7	79.4
Power generating machinery	179	99.6	104.8	104.7	113.3	111.6	111.5	110.0
Industrial machinery	274	101.4	100.0	102.7	112.7	110.5	115.4	112.8
Metalworking machinery	44	101.3	107.3	107.4	104.4	104.1	105.1	104.3
General industrial machinery	359	103.7	97.8	98.2	101.6	103.9	104.5	104.2
Office & data machines	2,327	142.0	88.2	77.0	75.4	70.4	65.8	64.2
Telecommunication apparatus	1,108	117.4	96.5	96.0	104.7	111.0	114.3	113.3
Electrical machinery nec	2,085	109.9	91.4	78.4	76.6	73.9	71.8	64.2
Road vehicles	144	126.4	101.5	109.0	104.3	109.6	110.9	112.1
Miscellaneous Manufactures	779	106.6	99.0	98.7	101.0	100.7	101.0	101.2
Prefab building, sanitary, lighting	13	108.1	98.7	98.7	101.4	100.9	114.6	114.9
Furniture, bedding, mattresses	18	97.2	98.3	97.5	101.4	91.7	93.8	98.9
Travel goods	7	-	100.0	97.8	116.7	116.8	119.0	114.7
Clothing	122	101.8	98.5	99.6	101.1	98.1	97.6	95.6
Footwear	14	109.5	106.1	101.2	103.6	103.9	104.3	105.4
Scientific instruments	142	98.2	106.1	106.6	111.3	121.0	116.2	115.7
Photographic apparatus	159	111.7	98.4	102.7	106.1	102.6	103.2	102.9
Miscellaneous mfd articles nec	304	115.8	95.9	92.7	93.1	91.4	93.6	94.8

18.9 BUILDING MATERIALS PRICE INDEX

(1985=100)

Building Material	Weights ¹	1991	1996	1997	1998	1999	2000	2001
All Items	10,000	122.7	120.8	119.4	115.9	111.9	112.4	112.5
Timber & Wood Products	585	111.2	126.9	126.9	126.1	125.6	125.5	124.8
Concrete Ingredients								
(Granite)	872	116.5	102.5	99.4	91.8	83.6	83.5	83.5
Paints	292	114.6	124.9	125.0	125.4	125.8	125.7	125.9
Cement	1,338	151.4	141.7	138.6	127.6	110.0	109.4	110.7
Bricks & Concrete Blocks	2,076	114.4	115.5	115.1	114.0	112.8	113.0	113.1
Tiles	952	114.0	111.7	111.7	111.7	111.7	111.7	111.7
Iron & Steel Products	1,764	119.0	102.5	100.7	100.6	96.9	97.5	96.4
Cables	646	123.5	121.2	120.6	116.0	114.0	118.4	118.8
Sanitary & Plumbing								
Fixtures	69	102.7	107.5	107.6	107.8	107.8	107.8	107.8
Others	1,406	128.9	145.9	144.3	138.5	139.5	141.0	141.8

Source : Building and Construction Authority

Note : Prices used are ex-factory price of manufactured building material and CIF (Cost Insurance Freight) price of imported building materials.

1 Based on the 1984 distribution pattern of building materials.

18.10 PRICE INDICES OF SELECTED FARM PRODUCTS

(1997=100)

Farm Product	1991	1996	1997	1998	1999	2000	2001
Pigs	77.8	112.9	100.0	96.7	134.6	144.4	142.2
Chickens	91.9	102.4	100.0	95.4	95.3	89.5	86.2
Ducks	106.1	101.8	100.0	96.6	96.9	87.0	84.2
Hen Eggs	104.4	110.1	100.0	90.4	101.4	100.9	89.3
Fresh Fish ¹	82.0	101.2	100.0	84.8	95.5	99.5	104.3
Fresh Prawns	91.2	99.1	100.0	91.5	102.5	103.9	107.8
Leafy Vegetables	143.8	104.7	100.0	104.1	104.6	97.1	95.5
Orchid Flowers	na	na	100.0	91.8	97.7	108.7	103.7

Note : Prices used for the respective indices are auction prices for pigs, fresh fish and prawns, wholesale prices for chickens and ducks and ex-farm prices for hen eggs, leafy vegetables and orchid flowers.

18.11 PRODUCE PRICES

	1991	1996	1997	1998	1999	2000	2001
Rubber (Cents per kg, fob)							
Ribbed Smoked Sheet							
Int 2	141.71	199.09	149.08	120.18	106.34	116.82	104.76
Int 3	138.59	199.09	149.02	120.18	106.34	116.82	104.76
Int 4	134.75	193.84	144.39	115.93	102.51	113.07	101.01
Thin Pale Crepe							
Int 1	215.28	259.84	212.56	174.12	156.76	168.54	154.68
Int 9	221.28	265.84	218.55	180.12	162.76	174.54	160.68
SSR 20	137.23	188.90	150.39	116.20	105.00	113.17	99.55
SSR 50	135.23	186.90	148.39	114.20	103.00	111.17	97.55
Pepper (\$ per 100 kg, fob)							
Black Lampong	237.57	326.96	625.18	843.18	869.81	761.23	383.15
White Muntok Genuine	244.89	503.91	914.01	1,154.51	1,144.48	745.90	423.79
Coffee API (\$ per 100 kg, fob)	187.21	289.79	327.27	386.35	355.67	206.42	152.96
Crude Coconut Oil (\$ per 100 kg, fob)							
(in Drums)	85.72	120.83	110.58	116.94	134.95	113.33	110.00
Tin (RM/kg, fob)	15.04	15.34	15.54	21.18	20.09	20.45	16.82

Source : Singapore Commodity Exchange

Chinese Produce Exchange

Note : Int = International

SSR = Singapore Specified Rubber

API = After Polished Grade 1

RM = Ringgit Malaysia

18.12

PRIVATE PROPERTY PRICE INDEX BY TYPE OF PROPERTY

(4th Quarter 1998 =100)

(End of Period)

Type of Property	1991	1996	1997	1998	1999	2000	2001
Residential	66.6	173.1	151.6	100.0	134.2	132.8	117.2
Landed	66.1	180.8	160.3	100.0	135.7	133.5	119.4
Detached	64.0	190.7	175.1	100.0	135.5	130.2	118.6
Semi-detached	61.5	174.0	159.1	100.0	132.1	136.1	117.0
Terrace	71.6	177.3	148.2	100.0	137.9	134.1	121.4
Non-landed	67.0	166.9	144.6	100.0	133.6	132.4	116.2
Apartment	78.9	175.2	145.8	100.0	132.4	131.3	112.2
Condominium	62.0	163.5	144.0	100.0	134.0	132.8	117.6
Commercial							
Office Space	92.0	160.3	143.2	100.0	98.7	125.9	98.8
Shop Space	115.8	144.6	127.3	100.0	90.3	104.1	93.3
Industrial	66.8	153.2	146.0	100.0	94.9	111.5	na ¹
Multiple-user Factory	65.8	150.1	144.3	100.0	94.4	110.5	92.7
Multiple-user Warehouse	74.2	176.8	158.9	100.0	96.8	117.5	na ¹

Source : Urban Redevelopment Authority

Note : The price index is computed based on fixed weights before 4th Quarter 1998. The weights used to compute the index are updated every quarter from 4th Quarter 1998.

1 No options caveat for multiple-user warehouses was lodged in 4th Quarter 2001.

18.13

COMMERCIAL PROPERTY RENTAL INDEX BY TYPE OF PROPERTY

(4th Quarter 1998 =100)

(End of Period)

Type of Property	1995	1996	1997	1998	1999	2000	2001
Office Space							
Central Region	126.2	128.2	120.7	100.0	90.7	102.1	94.1
Central Area	126.5	126.5	119.6	100.0	90.5	102.2	94.2
Fringe Area	124.6	138.2	126.9	100.0	91.7	101.3	93.2
Shop Space							
Central Region	135.0	126.3	122.9	100.0	94.5	106.5	94.5
Central Area	136.3	126.6	123.7	100.0	94.8	107.7	95.4
Fringe Area	119.1	122.0	113.1	100.0	93.5	102.8	89.9

Source : Urban Redevelopment Authority

Note : Data refer to properties owned by the private sector.

The rental index is computed based on fixed weights before 4th Quarter 1998. The weights used to compute the index are updated every quarter from 4th Quarter 1998.

Leaving Examination (LEA), the purpose of which is to assess pupils' ability and place them in the appropriate secondary school course to suit their learning pace and aptitude.

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Secondary Education

Secondary education may take four or five years, depending on the ability of the child. Pupils in the Special and Express courses sit for the General Certificate of Education Ordinary Level (GCE O Level) at the end of their fourth year.

Pupils in the Normal Course may take the Normal (Academic) or Normal (Technical) course, both of which lead to the General Certificate of Education Normal Level (GCE N Level) Examination at the end of their fourth year. Pupils who do well may do a fifth year of study in preparation for the GCE O Level Examination and then sit for the GCE A Level Examination at the end of their sixth year.

Post-Secondary Education

On completion of secondary education, pupils can enter a junior college for a two-year pre-university course or a certificate course for a three-year course. At the end of the pre-university course, pupils sit for the General Certificate of Education Advanced Level (GCE A Level) Examination, the results of which determine their eligibility for tertiary education.

and it serves to develop readiness for further studies. Pupils interested in technical and vocational studies can join the polytechnic courses. Technical Education is a technical institution for the training of technicians. Courses in Business Studies or Certificate in Office Skills are offered. Polytechnic graduates who do well may take further studies at the universities. The graduates who perform well

at least ten years of general education. A fundamental feature of Singapore's education system is the bilingual policy which ensures that each child learns both English and his mother tongue so as to maintain an awareness of his cultural heritage while learning the skills to function in a global economy. In 1979, Singapore started to establish a system of general education for all children. The Ministry of Education has taken on the challenge to develop and expand our students' creative potential and instill in them the necessary learning attitudes.

Technology is used widely as teaching and learning resources to develop skills in communication and independent learning. National Education is also taught to foster strong bonds among students and to instill in them a sense of national identity and commitment to society, in community and in the world. Training is provided for

The Worker Education

Secondary Education (SEW) programme. Even after the Primary Level, pupils go through a four-year foundation stage (from Primary 1 to Primary 4) and a two-year pre-university stage (from Primary 5 to Primary 6). At the foundation stage, the emphasis is basic literacy and numeracy skills. Eighty per cent of curriculum time is devoted to giving pupils a working knowledge of English and a good grounding in mother tongue and Mathematics. Civic and Moral Education will be taught in the mother tongue. Pupils will also have Music, Art and Craft and Science and participate in Physical Education and Extra-Curricular Activities. Science will be taught from Primary 3 onwards and Social Studies from Primary 4 onwards.

At the end of Primary 4, pupils are placed in different streams according to their abilities. At the end of primary schooling, all pupils take the Primary School

Every child in Singapore undergoes at least ten years of general education. A fundamental feature of Singapore's education system is the bilingual policy which ensures that each child learns both English and his mother tongue, so as to maintain an awareness of his cultural heritage whilst learning the skills to function in a modern economy.

Creativity and critical thinking skills are essential for the future. The Ministry of Education has taken on the challenge to develop and expand our students' creative potential and instill in them the desire for continual learning. In addition, Information Technology is used widely as teaching and learning resources to develop skills in communication and independent learning. National Education is also taught to foster strong bonds among students and develop in them a sense of responsibility and commitment to family, community and country.

Primary Education

At the Primary level, pupils go through a four-year foundation stage (from Primary One to Four), and a two-year orientation stage (from Primary Five to Six). At the foundation stage, the emphasis is basic literacy and numeracy skills. Eighty per cent of curriculum time is devoted to giving pupils a working knowledge of English and a good grounding in mother tongue and Mathematics. Civics and Moral Education will be taught in the mother tongue. Pupils will also have Music, Art and Crafts and Science, and participate in Physical Education and Extra-Curricular Activities. Science will be taught from Primary 3 onwards and Social Studies from Primary 4 onwards.

At the end of Primary Four, pupils are placed in different language streams according to their abilities. At the end of primary schooling, all pupils take the Primary School

Leaving Examination (PSLE), the purpose of which is to assess pupils' ability and place them in the appropriate secondary school course to suit their learning pace and aptitude.

Secondary Education

Secondary education may take four or five years, depending on the ability of the child. Pupils in the Special and Express courses sit for the General Certificate of Education 'Ordinary' Level (GCE 'O' Level) Examination at the end of their fourth year. Pupils in the Normal Course may take the Normal (Academic) or Normal (Technical) course, both of which lead to the General Certificate of Education 'Normal' Level (GCE 'N' Level) Examination at the end of their fourth year. Those who do well may do a fifth year of study in preparation for the GCE 'O' Level.

Post Secondary Education

On completing secondary education, pupils can enter a junior college for a two-year pre-university course or a centralised institute for a three-year course. At the end of the pre-university course, pupils sit for the General Certificate of Education 'Advanced' Level (GCE 'A' Level) Examination, the results of which determine their eligibility for tertiary education.

Pupils interested in technical and commercial studies can join the polytechnics for diploma courses or the Institute of Technical Education's technical institutes for Industrial Technician Certificate, National Technical Certificate Grade 2, Certificate in Business Studies or Certificate in Office Skills Courses. Polytechnic graduates who do well may also pursue degree courses at the universities. ITE graduates who perform well

may pursue diploma courses at the Polytechnics.

Institute of Technical Education

The Institute of Technical Education (ITE) was established on 1 April 1992 as a post-secondary institution which provides pre-employment training for secondary school leavers and Continuing Education and Training (CET) for adult learners.

At ITE, full-time training and traineeship programmes are offered to school leavers. For adult learners, skills training and academic education programmes are offered. Employees can also undergo On-the-Job Training in companies which are Certified On-the-Job Training Centres. In addition, ITE conducts tests and examinations for public candidates and instructional skills and related programmes for industry trainers.

Full-time training is offered to secondary school leavers with GCE 'O' and 'N' qualifications in engineering, business and technical skills. The full-time courses lead to the award of the Industrial Technician Certificate (ITC), the National Technical Certificate Grade 2 (NTC-2), the Certificate in Business Studies (CBS), Certificate in Office Skills (COS) and the National Certificate in Nursing.

Traineeship is an 'earn-as-you-learn' scheme for secondary school leavers. It has two training components, namely, On-the-Job Training (OJT) and Off-the-Job Training (Off-JT). OJT is conducted by the company to which the trainee is attached, usually on its premises. Off-JT could be provided by ITE, industry training centres or Approved Training Centres certified by ITE.

In skills training for adult learners, ITE offers a range of 130 NTC-2, NTC-3 and

Certificate of Competency (CoC) modules grouped under 15 skills areas. These are collectively marketed under the Modular Skills Training (MOST), a national training programme for working adults who wish to acquire a new skill or upgrade their existing skills. To cater to the needs of specific groups of workers, ITE also offers the Training Initiative for Mature Employees (TIME) programme. The TIME programme is designed for workers who are 40 years and above and not conversant in English to take up NTC-3 courses.

For adult learners who wish to upgrade themselves academically, the options offered by ITE are:

- The Basic Education for Skills Training (BEST) programme which enables working adults to acquire basic proficiency in English or Mathematics so that they can further their education and training.
- The Worker Improvement through Secondary Education (WISE) programme enables working adults who have completed their primary education or the BEST programme to take the GCE 'N' level examination in English Language and/or Mathematics.
- ITE also offers part-time general education programmes from Secondary 1 Normal to GCE 'N', GCE 'O' and GCE 'A' levels. These programmes provide working adults the opportunity to acquire academic qualifications.

Higher Learning

The institutions of higher learning in Singapore are the National University of Singapore, Nanyang Technological University, Singapore Management University, Open University, Singapore Polytechnic, Ngee Ann

Polytechnic, Temasek Polytechnic and Nanyang Polytechnic.

The National University of Singapore (NUS) was established in August 1980 with the merger of the University of Singapore (founded in 1962) and Nanyang University (founded in 1956).

The University has six faculties and three faculty-level schools, namely, Arts and Social Sciences; Dentistry; Engineering; Law; Medicine; Science; the School of Business, School of Computing and School of Design and Environment.

All faculties offer courses leading to first degrees as well as higher degrees.

Research is accorded top priority at the University. NUS has established specialist research institutes and centres. These include the Bioinformatics Centre, Centre for Financial Engineering, Centre for Remote Imaging, Sensing and Processing, Chemical and Process Engineering Centre, Institute for Asian Research, Institute of Engineering Science, Institute for Mathematical Sciences, Medical Informatics Programme, National University Medical Institutes, Singapore Synchrotron Light Source, Temasek Laboratories, The Logistics Institute – Asia Pacific, Tropical Marine Science Institute and East Asian Institute.

There are 12 national level research institutes and centres which are affiliated to the University, namely, Bioinformatics Institute, Bioprocessing Technology Centre, Centre for Wireless Communication, Data Storage Institute, Genome Institute of Singapore, Institute of Chemical Sciences, Institute of High Performance Computing, Institute of Molecular Agrobiobiology, Institute of Molecular and Cell Biology, Institute of Microelectronics, Institute of Materials Research and Engineering and Kent Ridge Digital Labs.

The Nanyang Technological University (NTU) was established on 1 July 1991; NTU has its origin in the former Nanyang Technological Institute that was set up in 1981. It has seven schools, namely, the Nanyang Business School, the Schools of Civil and Environmental Engineering, Computer Engineering, Communication Studies and Information, Electrical and Electronic Engineering, Materials Engineering, and Mechanical and Production Engineering. The schools offer undergraduate courses as well as a range of graduate programmes leading to the degrees of Master, Doctor of Philosophy and postgraduate diplomas.

To facilitate research and advanced training, more than 30 research centres have been set up. These include the Satellite Engineering Centre and the Global Positioning Systems Centre. With its focus on pioneering innovative and reliable homegrown technologies, NTU has more than 20 spin-off companies specialising in e-commerce, IT, electronics and manufacturing process. NTU also has links with over 190 overseas institutions with programme enabling students to study at overseas universities.

The National Institute of Education (NIE), formed in July 1991 by the merging of the former Institute of Education and the College of Physical Education, became part of NTU on the same day. NIE provides professional training for teachers as well as the study of a wide range of academic subjects.

NIE offers the four-year Bachelor of Arts (Education) and Bachelor of Science (Education) Courses as well as the two-year Diploma in Education and Diploma in Physical Education Programmes for holders of GCE 'A' Level and Polytechnic Diploma qualifications. It also offers the Postgraduate Diploma in Education Programme for university graduates. In addition to the initial teacher-training programmes, NIE conducts a variety of in-

service training programmes. Facilities are also available at NIE for higher degree studies leading to the degrees of Master and Doctor of Philosophy.

The Singapore Management University (SMU) is Singapore's first university to offer an American-style university education, being modeled on the Wharton School of the University of Pennsylvania.

SMU presently offers the Bachelor of Business Management (BBM), the Bachelor in Accountancy (BAcc), the Bachelor of Science (Economics) and the MSc in Applied Finance programmes. It also offers the MSc and PhD programmes by research.

The Open University: Since 1994, the Singapore Institute of Management has been appointed by the Ministry of Education to run the Open University Degree Programme (OUDP). The undergraduate programmes are accredited and examined to the standards maintained by the Open University in the United Kingdom (UKOU).

The OUDP offers courses leading to Bachelor's degrees majoring in English Language and Literature, Mathematics, Computer Science, Technology (Electronics) Psychology, Business Studies, Information Technology and Computing, and Chinese Language and Literature. The OUDP also offers courses leading to Certificates and Diplomas under the Programme for Associate Student Studies (PASS) Scheme.

Polytechnics: There are four polytechnics offering a wide range of courses at diploma and advanced diploma levels. They are the Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic and Nanyang Polytechnic. Each of the polytechnics specialises in specific fields, in addition to various basic engineering, general business and management and information technology courses. These specialised fields include maritime studies, media & communication, publishing, design, tourism and hospitality management, law and management, library studies, health sciences, optometry, cardiac technology, sonography, police studies and security management, insurance practice and pre-school education. Some of the courses are conducted on a part-time basis for the working adults.

19.1 ENROLMENT IN EDUCATIONAL INSTITUTIONS

	1996	1997	1998	1999	2000	2001
Total	574,639	595,444	605,679	622,372	634,636	647,470
Primary Schools	269,590	280,108	288,311	300,153	305,992	302,733
Secondary Schools	184,726	187,415	178,795	173,007	176,132	187,858
Pre-University ¹	22,032	22,419	23,692	25,032	24,975	24,582
Institute of Technical Education ²	8,233	9,906	13,337	16,390	15,974	16,176
Polytechnics ³	51,186	53,676	55,223	57,126	58,372	59,816
National Institute of Education	2,276	2,422	3,350	3,317	3,335	3,883
Universities ⁴	36,596	39,498	42,971	47,347	49,856	52,422

Source : Ministry of Education

Note : Figures for primary, secondary and pre-university exclude private schools.

1 Include Pre-U Centres, Centralised Institutes and Junior Colleges. Pre-U Centres were phased out in 1997.

2 For 2000 onwards, figure refers to full-time peak student enrolment. Prior to 2000, figures refer to full-time average student enrolment.

3 Refer to full-time and part-time diploma and advanced diploma students in Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic and Nanyang Polytechnic.

4 Refer to full-time and part-time undergraduate and postgraduate students in National University of Singapore, Nanyang Technological University and Singapore Management University.

19.2 STUDENTS AND TEACHERS IN EDUCATIONAL INSTITUTIONS, 2001

	Institut- ions ¹	Students			Teachers		
		Total	Males	Females	Total	Males	Females
Total	397	647,470	340,780	306,690	31,831	12,383	19,448
Primary Schools	197	302,733	156,698	146,035	12,011	2,280	9,731
Secondary Schools	165	187,858	97,600	90,258	9,491	3,345	6,146
Pre-University ²	17	24,582	11,304	13,278	1,869	812	1,057
Institute of Technical Education ³	10	16,176	11,592	4,584	1,281	938	343
Polytechnics ⁴	4	59,816	33,364	26,452	3,764	2,407	1,357
National Institute of Education	1	3,883	1,103	2,780	391	232	159
Universities ⁵	3	52,422	29,119	23,303	3,024	2,369	655

Source : Ministry of Education

Notes : Figures for primary, secondary and pre-university exclude private schools.

Figures for institutions of higher learning include part-time students and teachers.

1 A school conducting both primary and secondary classes is treated as one primary and one secondary school.

2 Include Centralised Institutes and Junior Colleges.

3 Data refer to full-time teaching staff and students.

4 Include Singapore Polytechnic, Ngee Ann Polytechnic, Temasek Polytechnic and Nanyang Polytechnic.

5 Include National University of Singapore, Nanyang Technological University and Singapore Management University.

19.3

ENROLMENT IN GOVERNMENT AND GOVERNMENT-AIDED PRIMARY SCHOOLS BY LEVEL AND AGE

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	260,109	269,590	280,108	288,311	300,153	305,992	302,733
Level							
Primary 1	40,485	48,082	51,520	49,793	49,864	50,258	49,744
Primary 2	39,546	53,407	48,242	51,803	49,948	49,874	50,263
Primary 3	41,777	44,054	53,623	48,512	52,146	50,033	49,929
Primary 4	41,475	38,775	44,214	53,770	48,787	52,169	50,132
Primary 5	40,613	42,338	38,904	44,280	53,862	48,811	52,242
EM1	-	7,561	7,203	8,507	10,090	10,247	11,303
EM2	-	31,071	28,389	31,948	39,235	34,419	37,852
EM3	-	3,706	3,312	3,825	4,537	4,145	3,087
Primary 6	40,077	42,934	43,605	40,153	45,546	54,847	50,423
EM1	-	6,744	6,933	6,556	7,528	9,257	8,952
EM2	-	28,889	29,390	26,656	29,957	36,978	34,740
EM3	-	7,301	7,282	6,941	8,061	8,612	6,731
Primary 7	7,851	-	-	-	-	-	-
Primary 8	8,285	-	-	-	-	-	-
Age (in years)							
Under 7	40,127	47,515	50,868	49,074	49,169	49,673	49,086
7 & Under 8	39,335	53,060	47,851	51,353	49,412	49,463	49,956
8 & Under 9	41,482	43,685	53,251	48,067	51,626	49,475	49,448
9 & Under 10	41,218	38,237	43,821	53,413	48,287	51,560	49,523
10 & Under 11	40,375	42,077	38,397	43,918	53,664	48,321	51,621
11 & Under 12	40,097	41,060	42,144	38,435	43,972	53,670	48,304
12 & Under 13	10,665	2,600	2,493	2,529	2,436	2,430	3,187
13 & Under 14	6,530	1,189	1,069	1,186	1,227	1,047	1,265
14 & Over	280	167	214	336	360	353	343

Source : Ministry of Education

Notes : EM1 refers to the stream where pupils learn English and the mother tongue at higher level (Higher Chinese, Higher Malay or Higher Tamil formerly known as CL1, ML1 and TL1).

EM2 refers to the stream where pupils learn English and the mother tongue (Chinese, Malay or Tamil formerly known as CL2, ML2 and TL2).

EM3 refers to the stream where pupils learn English and the mother tongue (Chinese, Malay or Tamil) at basic proficiency level.

19.4

**ENROLMENT IN GOVERNMENT AND GOVERNMENT-AIDED SECONDARY
SCHOOLS AND JUNIOR COLLEGES BY LEVEL AND AGE**

	1991	1996	1997	1998	1999	2000	2001
Total	183,970	206,758	209,834	202,487	198,039	201,107	212,440
Level							
Secondary 1	35,161	40,888	41,614	42,284	38,950	44,498	53,154
Special	2,384	3,980	4,049	4,139	3,782	4,233	5,201
Express	19,218	21,292	21,244	21,635	19,923	22,561	27,641
Normal (Academic)	13,559	8,932	9,344	9,673	8,925	9,864	11,986
Normal (Technical)	-	6,684	6,977	6,837	6,320	7,840	8,326
Secondary 2	35,669	43,768	40,965	41,639	42,540	39,126	44,631
Special	2,441	4,091	3,880	3,912	4,242	3,830	4,146
Express	20,686	22,311	21,507	21,478	21,771	19,920	22,621
Normal (Academic)	12,542	10,673	9,475	9,929	10,207	9,515	10,635
Normal (Technical)	-	6,693	6,103	6,320	6,320	5,861	7,229
Secondary 3	38,036	53,395	44,617	41,811	43,177	43,776	40,349
Special	2,354	3,523	3,870	3,815	4,352	4,393	3,912
Express	22,718	25,554	23,398	22,194	22,164	22,589	20,478
Normal (Academic)	12,964	16,935	11,019	10,031	10,573	10,732	10,264
Normal (Technical)	-	7,383	6,330	5,771	6,088	6,062	5,695
Secondary 4	36,554	36,283	50,478	42,548	40,058	41,287	41,772
Special	2,213	2,778	3,410	3,730	3,745	4,151	4,070
Express	22,035	21,257	24,270	22,199	21,253	21,295	21,740
Normal (Academic)	12,306	12,248	15,974	10,873	9,684	10,133	10,347
Normal (Technical)	-	-	6,824	5,746	5,376	5,708	5,615
Secondary 5	11,326	10,392	9,741	10,513	8,282	7,445	7,952
Normal (Academic)	11,326	10,392	9,741	10,513	8,282	7,445	7,952
Pre-University 1	2,433	409	325	444	497	402	358
Pre-University 2	2,092	539	305	272	371	437	329
Pre-University 3	2,120	882	516	298	249	277	376
Junior College 1	10,119	10,575	11,197	11,983	12,502	11,914	12,273
Junior College 2	10,460	9,627	10,076	10,695	11,413	11,945	11,246
Age (in years)							
Under 12	23	42	35	36	42	33	28
12 & Under 13	28,563	37,713	38,796	39,872	36,307	41,727	50,627
13 & Under 14	31,542	40,981	39,174	40,042	41,208	37,674	42,859
14 & Under 15	38,337	40,930	41,332	39,267	40,517	41,635	38,018
15 & Under 16	34,345	39,389	40,420	40,725	39,226	40,402	41,480
16 & Under 17	25,415	27,577	27,821	22,969	23,655	22,283	22,789
17 & Under 18	18,969	16,238	18,805	16,219	14,332	14,697	13,833
18 & Under 19	5,425	3,134	2,936	2,938	2,276	2,173	2,291
19 & Under 20	1,149	650	425	371	431	409	441
20 & Over	202	104	90	48	45	74	74

Source : Ministry of Education

19.5 PRIVATE REGULAR SCHOOLS, STUDENTS AND TEACHERS

	1991	1996	1997	1998	1999	2000	2001
Schools	4	4	3	3	3	2	2
Students	1,920	1,059	1,118	1,032	991	783	719
Primary	177	98	90	94	73	67	70
Secondary	536	598	690	646	652	609	532
Pre-university	1,207	363	338	292	266	107	117
Teachers	67	56	50	48	65	57	58

Source : Ministry of Education

19.6 ENROLMENT AT PRIMARY, SECONDARY AND PRE-UNIVERSITY LEVELS IN PRIVATE REGULAR SCHOOLS BY LEVEL

Level	1991	1996	1997	1998	1999	2000	2001
Total	1,920	1,059	1,118	1,032	991	783	719
Primary	177	98	90	94	73	67	70
Primary 1	10	5	6	10	8	5	10
Primary 2	12	10	5	8	11	9	4
Primary 3	22	16	12	9	10	11	9
Primary 4	22	19	17	14	6	9	14
Primary 5	26	13	24	21	14	12	7
Primary 6	85	35	26	32	24	21	26
Secondary	536	598	690	646	652	609	532
Secondary 1	186	101	66	61	91	95	45
Secondary 2	123	77	77	54	84	112	70
Secondary 3	141	133	98	124	145	164	170
Secondary 4	86	287	449	407	332	238	247
Pre-university	1,207	363	338	292	266	107	117

Source : Ministry of Education

19.7 STUDENTS ADMITTED TO INSTITUTIONS OF HIGHER LEARNING BY SEX

	1996	1997	1998	1999	2000	2001
FULL-TIME						
Polytechnics ¹	15,883	16,531	17,385	17,612	17,721	18,170
Males	8,592	8,797	9,210	9,325	9,324	9,605
Females	7,291	7,734	8,175	8,287	8,397	8,565
National Institute of Education ²	1,659	1,565	2,388	2,167	1,884	2,347
Males	458	478	693	600	556	666
Females	1,201	1,087	1,695	1,567	1,328	1,681
Universities ³	8,952	9,254	9,763	10,619	11,232	11,153
Males	4,300	4,487	4,892	5,256	5,470	5,293
Females	4,652	4,767	4,871	5,363	5,762	5,860
PART-TIME						
Polytechnics ¹	1,975	1,023	988	1,073	1,072	1,653
Males	1,673	856	831	905	893	1,382
Females	302	167	157	168	179	271
National Institute of Education ²	46	47	42	34	59	27
Males	22	23	20	11	23	5
Females	24	24	22	23	36	22
Universities ³	385	383	375	478	466	450
Males	348	327	316	357	341	349
Females	37	56	59	121	125	101

Source : National University of Singapore
Nanyang Technological University
Singapore Management University

National Institute of Education
Singapore Polytechnic
Ngee Ann Polytechnic

Temasek Polytechnic
Nanyang Polytechnic

Note : Data refer to academic year.

Figures include direct entry to second and subsequent years.

1 Figures for polytechnics refer to diploma students only.

2 National Institute of Education figures exclude higher degrees and BA/BSc with Dip Ed which are included under universities.

3 Figures for universities refer to undergraduates.

19.8 ENROLMENT IN INSTITUTIONS OF HIGHER LEARNING BY SEX

										Number

19.9

GRADUATES FROM INSTITUTIONS OF HIGHER LEARNING BY SEX

	1996	1997	1998	1999	2000	2001
FULL-TIME						
Polytechnics ¹	11,171	11,848	12,807	13,674	14,058	14,937
Males	6,149	6,298	6,850	7,317	7,348	7,695
Females	5,022	5,550	5,957	6,357	6,710	7,242
National Institute of Education ²	946	1,467	1,499	1,573	2,424	2,121
Males	267	366	471	450	761	613
Females	679	1,101	1,028	1,123	1,663	1,508
Universities ³	8,218	8,679	9,331	9,355	9,244	9,586
Males	4,022	4,276	4,455	4,485	4,391	4,492
Females	4,196	4,403	4,876	4,870	4,853	5,094
PART-TIME						
Polytechnics ¹	934	1,071	1,097	967	1,015	1,029
Males	728	855	898	794	834	850
Females	206	216	199	173	181	179
National Institute of Education ²	50	55	44	39	36	37
Males	20	27	23	21	10	18
Females	30	28	21	18	26	19
Universities ³	-	-	-	108	162	273
Males	-	-	-	88	145	243
Females	-	-	-	20	17	30

Source : National University of Singapore
Nanyang Technological University
National Institute of Education

Singapore Polytechnic
Ngee Ann Polytechnic
Temasek Polytechnic

Nanyang Polytechnic

Note : Data refer to academic year.

1 Figures for polytechnics refer to diploma students only.

2 National Institute of Education figures exclude higher degrees and BA/BSc with Dip Ed which are included under universities.

3 Figures for universities refer to first degree graduates.

19.10

ENROLMENT IN POLYTECHNIC DIPLOMA COURSES BY TYPE OF COURSE

Type of Course	1996	1997	1998	1999	2000	2001
MALES	28,412	29,681	30,035	30,725	31,108	31,816
Education	-	-	-	4	11	12
Applied Arts ¹	504	507	645	769	841	860
Mass Communication	185	177	171	156	172	219
Library Science	-	4	7	9	8	8
Business & Administration ²	2,962	2,907	2,920	2,947	3,064	3,119
Legal Studies	62	84	88	98	109	128
Science & Related Technologies	337	366	397	409	444	509
Health Sciences	276	300	331	360	350	396
Information Technology	2,136	2,534	3,252	3,974	4,801	5,640
Architecture & Building ³	1,112	1,085	952	892	745	626
Engineering Sciences	20,630	21,400	20,947	20,677	20,097	19,823
Services ⁴	208	317	325	430	466	476
FEMALES	20,702	21,954	23,142	24,209	24,936	25,689
Education	-	-	-	82	194	292
Applied Arts ¹	501	602	733	818	864	881
Mass Communication	324	385	424	438	412	540
Library Science	-	34	53	68	44	44
Business & Administration ²	7,755	7,740	7,811	7,838	7,929	7,930
Legal Studies	182	203	218	222	229	274
Science & Related Technologies	652	793	927	1,073	1,168	1,104
Health Sciences	1,632	1,661	1,762	1,800	1,793	2,059
Information Technology	1,433	1,675	2,011	2,423	2,898	3,553
Architecture & Building ³	935	926	907	918	917	964
Engineering Sciences	7,201	7,840	8,192	8,412	8,352	7,908
Services ⁴	87	95	104	117	136	140

Source : Singapore Polytechnic
Ngee Ann Polytechnic

Temasek Polytechnic
Nanyang Polytechnic

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time polytechnic diploma courses.

- 1 Include Digital Media Design and Media Production.
- 2 Include Accountancy.
- 3 Include Real Estate.
- 4 Include Maritime Transportation, Nautical Studies and Police Studies.

19.11

ENROLMENT IN UNIVERSITY FIRST DEGREE COURSES BY TYPE OF COURSE

Type of Course	1996	1997	1998	1999	2000	2001
MALES	15,624	16,251	17,186	18,319	19,556	20,354
Applied Arts ¹	-	-	-	14	22	35
Humanities & Social Sciences ²	1,495	1,514	1,499	1,578	1,598	1,644
Mass Communication	110	122	125	141	136	134
Accountancy	833	853	839	760	715	712
Business & Administration	1,367	1,249	1,165	1,136	1,159	1,130
Law	335	297	300	269	248	251
Natural, Physical & Mathematical Sciences ³	1,170	1,151	1,109	1,128	1,243	1,376
Medicine	553	564	584	604	611	650
Dentistry	89	84	81	83	83	85
Health Sciences	29	37	54	66	66	65
Information Technology	1,031	958	960	1,062	1,236	1,319
Architecture & Building ⁴	453	426	431	504	578	608
Engineering Sciences	8,159	8,996	10,039	10,974	11,861	12,345
FEMALES	14,750	15,477	15,907	16,783	18,092	19,217
Applied Arts ¹	-	-	-	11	26	37
Humanities & Social Sciences ²	4,282	4,328	4,288	4,337	4,447	4,448
Mass Communication	323	330	349	339	361	399
Accountancy	1,476	1,517	1,512	1,548	1,567	1,543
Business & Administration	2,731	2,770	2,669	2,563	2,593	2,632
Law	360	355	329	334	350	378
Natural, Physical & Mathematical Sciences ³	1,941	2,007	2,040	2,188	2,430	2,734
Medicine	208	225	250	284	336	386
Dentistry	53	58	57	53	56	52
Health Sciences	164	171	177	183	223	249
Information Technology	712	683	555	603	688	804
Architecture & Building ⁴	646	669	746	815	847	886
Engineering Sciences	1,854	2,364	2,935	3,525	4,168	4,669

Source : National University of Singapore
Nanyang Technological University
Singapore Management University

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time first degree courses.

- 1 Include Industrial Design.
- 2 Include Arts with Diploma in Education.
- 3 Include Science with Diploma in Education.
- 4 Include Real Estate.

19.12

GRADUATES FROM POLYTECHNIC DIPLOMA COURSES BY TYPE OF COURSE

Type of Course	1996	1997	1998	1999	2000	2001
MALES	6,877	7,153	7,748	8,111	8,182	8,545
Applied Arts ¹	101	93	96	140	191	213
Mass Communication	33	45	56	59	49	51
Library Science	-	-	-	-	4	3
Business & Administration ²	690	769	861	884	832	861
Legal Studies	19	6	20	19	29	19
Science & Related Technologies	83	91	95	112	113	135
Health Sciences	35	70	74	85	83	126
Information Technology	451	522	581	795	904	1,193
Architecture & Building ³	227	314	325	283	308	282
Engineering Sciences	5,098	5,142	5,531	5,622	5,525	5,462
Services ⁴	140	101	109	112	144	200
FEMALES	5,228	5,766	6,156	6,530	6,891	7,421
Applied Arts ¹	88	100	137	178	211	248
Mass Communication	84	83	89	119	151	124
Library Science	-	-	-	-	33	19
Business & Administration ²	2,120	2,192	2,355	2,389	2,474	2,426
Legal Studies	49	39	53	59	71	66
Science & Related Technologies	114	121	222	253	262	338
Health Sciences	400	453	449	518	488	581
Information Technology	337	347	441	508	576	756
Architecture & Building ³	270	282	260	277	310	272
Engineering Sciences	1,748	2,122	2,128	2,196	2,279	2,549
Services ⁴	18	27	22	33	36	42

Source : Singapore Polytechnic
Ngee Ann Polytechnic

Temasek Polytechnic
Nanyang Polytechnic

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time polytechnic diploma courses.

Data refer to academic year.

- 1 Include Digital Media Design and Media Production.
- 2 Include Accountancy.
- 3 Include Real Estate.
- 4 Include Maritime Transportation, Nautical Studies and Police Studies.

19.13

GRADUATES FROM UNIVERSITY FIRST DEGREE COURSES BY TYPE OF COURSE

Type of Course	Number					
	1996	1997	1998	1999	2000	2001
MALES	4,022	4,276	4,455	4,573	4,536	4,735
Humanities & Social Sciences ¹	525	583	583	604	597	573
Mass Communication	-	28	27	19	34	39
Accountancy	262	227	264	297	250	257
Business & Administration	358	448	461	349	328	403
Law	75	90	70	92	74	58
Natural, Physical & Mathematical Sciences ²	467	453	442	417	390	382
Medicine	97	107	106	104	119	97
Dentistry	24	20	24	18	17	19
Health Sciences	9	9	8	14	11	17
Information Technology	362	370	377	355	348	249
Architecture & Building ³	142	135	141	104	101	124
Engineering Sciences	1,701	1,806	1,952	2,200	2,267	2,517
FEMALES	4,196	4,403	4,876	4,890	4,870	5,124
Humanities & Social Sciences ¹	1,529	1,517	1,653	1,614	1,533	1,636
Mass Communication	-	67	74	93	80	77
Accountancy	433	453	487	482	495	484
Business & Administration	848	808	869	905	851	807
Law	106	97	103	77	79	96
Natural, Physical & Mathematical Sciences ²	575	637	705	710	689	785
Medicine	53	40	42	41	37	42
Dentistry	13	10	12	14	15	16
Health Sciences	59	60	69	77	30	46
Information Technology	194	218	296	218	187	133
Architecture & Building ³	136	163	153	167	192	199
Engineering Sciences	250	333	413	492	682	803

Source : National University of Singapore
Nanyang Technological University

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time first degree courses.

Data refer to academic year.

1 Include Arts with Diploma in Education.

2 Include Science with Diploma in Education.

3 Include Real Estate.

19.14 ENROLMENT IN POLYTECHNIC ADVANCED DIPLOMA COURSES BY TYPE OF COURSE

Type of Course	Number					
	1996	1997	1998	1999	2000	2001
Total	2,072	2,041	2,046	2,192	2,328	2,311
Applied Arts ¹	29	47	1	52	65	30
Business & Administration ²	668	550	544	482	400	375
Science & Related Technologies	74	40	18	26	25	25
Health Sciences	186	143	133	210	162	168
Information Technology	257	340	418	538	796	628
Architecture & Building ³	168	104	56	18	-	20
Engineering Sciences	644	727	794	738	653	797
Services ⁴	46	69	64	113	179	168
Others	-	21	18	15	48	100

Source : Singapore Polytechnic Temasek Polytechnic
 Ngee Ann Polytechnic Nanyang Polytechnic

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time post diploma, advanced diploma, management diploma, specialist diploma and postgraduate diploma courses.

- 1 Include Digital Media Design and Media Production.
- 2 Include Accountancy.
- 3 Include Real Estate.
- 4 Include Maritime Transportation and Police Studies.

19.15 ENROLMENT IN HIGHER DEGREE COURSES BY TYPE OF COURSE

Type of Course	Number						
	1996	1997	1998	1999	2000	2001	
Total	6,410	8,047	10,240	12,759	12,774	13,415	
Education	104	136	169	267	321	357	
Humanities & Social Sciences	445	579	821	1,181	1,324	1,351	
Mass Communication	189	241	301	344	78	365	
Business & Administration ¹	1,234	1,458	1,724	2,217	2,054	1,810	
Law	127	128	115	150	136	173	
Natural, Physical & Mathematical Sciences	526	746	781	921	962	1,008	
Medicine & Dentistry ²	353	402	479	580	599	710	
Information Technology	442	480	709	864	919	1,024	
Architecture & Building ³	355	454	563	640	617	665	
Engineering Sciences	2,596	3,378	4,532	5,551	5,724	5,907	
Services	39	45	46	44	40	45	

Source : National University of Singapore Singapore Management University
 Nanyang Technological University National Institute of Education

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time postgraduate diploma and higher degree courses offered by National University of Singapore, Nanyang Technological University and Singapore Management University, and higher degree courses offered by National Institute of Education.

- 1 Include Accountancy.
- 2 Include Pharmacy.
- 3 Include Real Estate.

19.16 GRADUATES FROM POLYTECHNIC ADVANCED DIPLOMA COURSES BY TYPE OF COURSE

Type of Course	Number							
	1996	1997	1998	1999	2000	2001	2001	2001
Total	654	956	1,228	1,140	1,298	1,558		
Applied Arts ¹	23	-	44	1	27	39		
Business & Administration ²	39	259	436	298	289	301		
Science & Related Technologies	-	47	18	18	-	24		
Health Sciences	116	177	139	112	209	158		
Information Technology	116	97	135	220	239	485		
Architecture & Building ³	88	86	65	33	16	-		
Engineering Sciences	257	248	302	397	368	375		
Services ⁴	15	42	68	61	135	158		
Others	-	-	21	-	15	18		

Source : Singapore Polytechnic Temasek Polytechnic
 Ngee Ann Polytechnic Nanyang Polytechnic

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time post diploma, advanced diploma, management diploma, specialist diploma and postgraduate diploma courses.

1 Include Digital Media Design and Media Production.

2 Include Accountancy.

3 Include Real Estate.

4 Include Maritime Transportation and Police Studies.

19.17 GRADUATES FROM HIGHER DEGREE COURSES BY TYPE OF COURSE

Type of Course	Number							
	1996	1997	1998	1999	2000	2001	2001	2001
Total	1,488	1,795	2,165	2,588	3,614	4,239		
Education	17	21	21	36	35	42		
Humanities & Social Sciences	141	132	159	216	308	479		
Mass Communication	10	39	40	54	82	13		
Business & Administration ¹	459	428	554	585	827	964		
Law	65	82	91	58	85	78		
Natural, Physical & Mathematical Sciences	73	96	141	158	165	232		
Medicine & Dentistry ²	127	152	154	214	232	241		
Information Technology	99	199	153	232	279	295		
Architecture & Building ³	86	82	96	125	157	192		
Engineering Sciences	410	552	742	891	1,424	1,689		
Services	1	12	14	19	20	14		

Source : National University of Singapore National Institution of Education
 Nanyang Technological University

Note : Data are classified according to the Singapore Standard Educational Classification 2000.

Cover full-time and part-time postgraduate diploma and higher degree courses offered by National University of Singapore and Nanyang Technological University and higher degree courses offered by National Institute of Education.

1 Include Accountancy.

2 Include Pharmacy.

3 Include Real Estate.

19.18

STUDENTS ADMITTED TO OPEN UNIVERSITY, 2001

	Total	Sex		Age Group (Years)			Number
		Males	Females	Below 30	30 - 39	40 & Over	
Total	1,038	543	495	568	329	141	
Arts	389	98	291	157	156	76	
Science	649	445	204	411	173	65	

Source : Singapore Institute of Management

19.19

INTAKE OF TRAINEES UNDER THE FULL-TIME INSTITUTIONAL TRAINING AND TRAINEESHIP PROGRAMMES AND TRAINEES WHO COMPLETED THE PROGRAMMES, 2001

Type of Training/Level	Intake of Trainees			Trainees who Completed the Programmes			Number
	Total	Males	Females	Total	Males	Females	
Total	11,317	7,743	3,574	8,263	5,526	2,737	
Engineering							
Industrial Technician Certificate	1,994	1,665	329	1,229	993	236	
Business Studies							
Certificate in Business Studies	796	157	639	619	99	520	
Certificate in Office Skills	1,704	311	1,393	1,420	215	1,205	
National Certificate in Nursing	147	18	129	48	4	44	
Technical Skills							
National Technical Certificate (Incl Certificate of Vocational Training)	6,548	5,545	1,003	4,751	4,114	637	
Service Skills							
Certificate in Service Skills ¹	128	47	81	196	101	95	

Source : Institute of Technical Education

Note : The Full-time Institutional Training and Traineeship Programmes are offered to school leavers with GCE 'O' and 'N' level qualifications.

1 Includes Travel Services (General), Retailing (Sales & Customer Service), Health Care (In-Patient/Out-Patient) and Computer Operations.

19.20

**TRAINING PLACES TAKEN UP BY WORKERS UNDER THE SKILLS
TRAINING PROGRAMMES AND WORKERS WHO COMPLETED
THE PROGRAMMES, 2001**

Type of Training/Level	Training Places Taken Up			Workers who Completed the Programmes ¹		
	Total	Males	Females	Total	Males	Females
Total	53,619	26,092	27,527	33,665	23,152	10,513
Engineering						
Industrial Technician Certificate	785	720	65	309	286	23
Business Studies						
Certificate in Business Studies	12,032	842	11,190	2,669	187	2,482
Certificate in Office Skills	12,477	1,123	11,354	2,654	241	2,413
Technical Skills						
National Technical Certificate (incl						
Certificate of Vocational Training)	20,940	18,773	2,167	21,548	18,219	3,329
Certificate of Competency	3,064	1,310	1,754	2,324	940	1,384
Service Skills						
Certificate in Service Skills	504	148	356	344	103	241
Others						
(incl Continuing Training, Customised, Theory Only and Certificate of Endorsement courses)	3,817	3,176	641	3,817	3,176	641

Source : Institute of Technical Education

Note : Most of the Skills Training Programmes are offered in modules of 6 months' duration. A worker may attend more than one module a year.

1 Figures for National Technical Certificate Grades 2 & 3 refer to modules completed while figures for National Technical Certificate Grade 1 and Certificate of Vocational Training refer to workers who completed the respective programmes.

19.21

**TRAINING PLACES TAKEN UP BY WORKERS UNDER THE CONTINUING
ACADEMIC EDUCATION PROGRAMMES AND WORKERS WHO
COMPLETED THE PROGRAMMES, 2001**

Type of Programme	Training Places Taken Up			Workers who Completed the Programmes		
	Total	Males	Females	Total	Males	Females
Total	46,808	17,824	28,984	28,952	10,549	18,403
Basic Education for Skills Training (BEST)	21,398	7,532	13,866	14,758	5,148	9,610
Worker Improvement through Secondary Education (WISE)	13,229	5,293	7,936	7,883	3,000	4,883
Continuing Education (Secondary & Pre-University)	12,181	4,999	7,182	6,311	2,401	3,910

Source : Institute of Technical Education

Note : The BEST and WISE Programmes are offered in modules of 6 months' duration. A worker may attend more than one module a year.

19.22

GOVERNMENT EXPENDITURE ON EDUCATION

Thousand Dollars

	1991	1996	1997	1998	1999	2000	2001
Total	2,816,371	3,771,955	4,449,754	4,853,121	4,857,488	5,867,507	6,334,330
Recurrent Expenditure	2,356,794	2,997,158	3,347,775	3,167,426	3,256,874	4,276,896	4,856,515
Primary Schools	542,903	764,064	829,887	818,646	820,842	995,279	1,153,669
Secondary Schools & Junior Colleges ¹	597,506	944,274	1,019,209	973,076	1,000,479	1,166,827	1,306,341
Institute of Technical Education	87,580	112,899	124,332	120,441	126,371	148,416	162,679
Tertiary	1,034,535	999,364	1,133,984	1,010,986	1,018,907	1,506,313	1,719,412
National University of Singapore & Nanyang Technological University & Singapore Management University	841,154	546,120	656,619	537,450	569,972	898,505	1,041,794
National Institute of Education	23,373	59,620	48,131	53,862	61,697	83,753	83,470
Polytechnics	170,008	393,624	429,234	419,674	387,238	524,055	594,148
Others ²	94,270	176,557	240,363	244,277	290,275	460,061	514,414
Development Expenditure	459,577	774,797	1,101,979	1,685,695	1,600,614	1,590,611	1,477,815

Source : Ministry of Education

Note : Data refer to the financial year which begins in April and ends in March of the following year.

1 Include Centralised Institutes.

2 Include Headquarters, Institute of Southeast Asian Studies, Open University, Science Centre Board, Special Education, Nanyang Academy of Fine Arts and Laselle-SIA College of the Arts.

19.23

GOVERNMENT RECURRENT EXPENDITURE ON EDUCATION PER STUDENT

Dollars									
	1991	1996	1997	1998	1999	2000	2001		
Primary Schools	2,062	2,837	2,960	2,808	2,612	3,137	3,519		
Secondary Schools ¹	3,004	4,152	4,469	4,472	4,409	5,104	5,540		
Junior Colleges ²	4,574	6,726	7,052	6,346	6,325	7,304	8,268		
Institute of Technical Education	5,180	11,646	10,586	7,020	6,452	8,076	7,679		
Polytechnics	6,051	8,406	9,018	8,144	8,032	9,546	10,192		
Universities ³	14,868	15,037	15,125	12,580	14,112	15,384	16,934		

Source : Ministry of Education

Note : Data refer to the financial year which begins in April and ends in March of the following year.

1 Exclude Independent Schools.

2 Include Centralised Institutes.

3 Include National University of Singapore, Nanyang Technological University and National Institute of Education.

HEALTH

responsibility of the Ministry of Health to ensure that health care in Singapore is characterized by good clinical outcomes and professional standards, and that services delivered are appropriate to needs. Through the emphasis on the needs of co-payment, the Ministry also ensures that healthcare remains affordable to Singaporeans.

In addition, the Ministry of Health is responsible for ensuring that health care in Singapore is characterized by good clinical outcomes and professional standards, and that services delivered are appropriate to needs. Through the emphasis on the needs of co-payment, the Ministry also ensures that healthcare remains affordable to Singaporeans.

Reorganisation and Restructuring of Public Healthcare Services

The Ministry of Health reorganised the public healthcare delivery system in 2000 into two vertically integrated delivery networks or clusters, the National Healthcare Group (NHG) and Singapore Health Services (SingHealth). This reorganisation positions Singapore's healthcare delivery system, which is already known for its quality, affordability and accessibility, to deliver more integrated and holistic healthcare to Singaporeans.

The two clusters were incorporated on 1 Oct 2000, with the completion of the restructuring of Alexandra Hospital, Woodbridge Hospital and the polyclinics. Each cluster will provide the full range of acute services ranging from primary care to secondary and tertiary care at regional and tertiary hospitals and national centres. Under these clusters, the restructured healthcare institutions will enjoy greater management and operational flexibility, which in turn, will enhance their ability to respond to changing circumstances and needs as well as provide better healthcare services to Singaporeans.

Statutory Boards
The Health Sciences Authority (HSA) provides a seamless regulatory service to the health care industry and aims to safeguard public confidence in the quality, safety and efficacy of health care and blood products in Singapore. HSA also provides specialised scientific expertise to support essential statutory functions.

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Public Health

Statistics on immunisation are collected from the Polyclinic vaccination records kept by HPH and compulsory notifications of immunisation to the Central Immunisation Registry by private practitioners. Data on patient attendance at primary health care clinics are obtained from the Polyclinic Patient Management System.

Hospital Statistics

Data on government hospital beds, patient admissions and outpatient attendances are obtained from administrative records and the computerised patient registration systems of the hospitals. For the private hospitals, the data are compiled from special returns prescribed by the Ministry of Health and from the Central Claims Processing System.

The Ministry of Health plays a major role in educating and providing information to the public on how they can maintain good healthy lifestyles. The Ministry also plays a key role in reducing illness in Singapore through the control and prevention of diseases and ensuring that the resources are allocated appropriately to do this.

In addition, the Ministry of Health is responsible for ensuring that health care in Singapore is characterized by good clinical outcomes and professional standards, and that services delivered are appropriate to patients' needs. Though the emphasis is on the principle of co-payment, the Ministry also ensures that healthcare remains affordable to Singaporeans.

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Statutory Boards

Two statutory boards under the Ministry of Health were established on 1 April 2001. The Health Promotion Board (HPB) provides the framework for a greater focus on health promotion issues and further strengthens health education, health promotion and disease prevention in Singapore. It spearheads the national health promotion and disease prevention efforts, and develops and promotes programmes in an environment that supports healthy lifestyles, as well as early detection and management of health problems in children, adults and the elderly.

The Health Sciences Authority (HSA) provides a seamless regulatory service to the health care industry and aims to safeguard public confidence in the quality, safety and efficacy of all health care and blood products in Singapore. HSA also provides specialised scientific expertise to support essential statutory functions.

Public Health

Statistics on immunisation are collected from the Polyclinics vaccination records kept by HPB and compulsory notifications of immunisation to the Central Immunisation Registry by private practitioners. Data on patient attendances at primary health care clinics are obtained from the Polyclinic Patient Management System.

Hospital Statistics

Data on government hospital beds, patient admissions and outpatient attendances are obtained from administrative records and the computerised patient registration systems of the hospitals. For the private hospitals, the data are compiled from special returns prescribed by the Ministry of Health and from the Central Claims Processing System.

Medical Personnel

Data on medical personnel refer to the number of doctors, dentists, pharmacists, nurses and midwives registered respectively under the Medical Registration Act, the Dentists Registration Act, the Pharmacists

Registration Act, the Nurses and Midwives Act. Separate computer manpower registers for each of these personnel groups are maintained by the professional bodies themselves and the statistics pertaining to these health personnel are derived from the registers.

20.1 HOSPITALS AND PUBLIC SECTOR CLINICS

	1991	1996	1997	1998	1999	2000	2001
Hospitals	22	25	24	23	28	28	28
Public Sector ¹	11	12	11	11	14	14	14
Private Sector ²	11	13	13	12	14	14	14
Hospital Beds	9,801	10,668	11,276	11,389	11,747	11,798	11,884
Public Sector ¹	7,892	8,511	9,091	9,277	9,560	9,556	9,274
Private Sector ²	1,909	2,157	2,185	2,112	2,187	2,242	2,610
Public Sector Dental Clinics ³	186	200	194	205	205	202	204
Polyclinics	22	20	20	18	18	16	16

Source : Ministry of Health

1 The number of hospitals in public sector includes specialty centres.

2 Chronic Sick Unit in Woodbridge Hospital was managed by Ren Ci Hospital with effect from 1 September 1994.

3 Exclude National Dental Centre (reflected as a specialty centre) and include dental clinics in schools.

20.2 HOSPITAL ADMISSIONS AND PUBLIC SECTOR OUTPATIENT ATTENDANCES

	1991	1996	1997	1998	1999	2000	2001
Hospital Admissions	336,937	373,413	369,456	369,530	374,390	390,368	384,329
Public Sector Hospitals ¹	259,752	277,785	275,339	283,953	290,706	305,532	305,076
Private Sector Hospitals	77,185	95,628	94,117	85,577	83,684	84,836	79,253
Public Sector Outpatient Attendances							
Specialist Outpatient Clinics	1,578,396	2,233,262	2,343,765	2,424,180	2,656,712	2,743,313	2,851,462
Accident & Emergency Departments	541,502	541,833	547,178	518,814	532,916	537,342	568,583
Polyclinics	2,710,963	2,892,141	2,910,366	2,933,348	2,924,918	2,728,377	3,023,793
Dental Clinics ²	1,092,143	1,121,728	1,097,675	1,083,261	1,067,945	955,626	990,131
Day Surgeries	40,588	69,199	74,589	78,264	87,890	100,025	119,042

Source : Ministry of Health

1 The number of hospitals in public sector includes specialty centres.

2 Include attendances from National Dental Centre.

20.3 REGISTERED HEALTH PERSONNEL

	1991	1996	1997	1998	1999	2000	2001
Doctors	3,779	4,661	4,912	5,148	5,325	5,577	5,922
Public	1,971	2,177	2,312	2,416	2,535	2,586	2,794
Private	1,677	2,302	2,380	2,489	2,606	2,809	2,925
Not in active practice	131	182	220	243	184	182	203
Dentists ¹	682	835	878	914	942	1,028	1,087
Public	180	176	187	180	167	193	205
Private	479	626	666	696	726	755	782
Not in active practice	23	33	25	38	49	80	100
Pharmacists	629	858	944	998	1,043	1,098	1,141
Public	122	175	177	204	219	238	297
Private	426	578	593	610	598	638	619
Not in active practice	81	105	174	184	226	222	225
Registered Nurses	7,570	10,141	10,867	11,491	11,765	12,353	12,828
Public	4,435	5,724	6,144	6,441	6,454	6,713	6,836
Private	2,119	2,881	2,973	2,936	2,981	3,198	3,225
Not in active practice	1,016	1,536	1,750	2,114	2,330	2,442	2,767
Enrolled Nurses	2,663	3,052	3,365	3,621	3,733	3,821	4,155
Public	1,695	1,727	1,918	2,028	2,030	2,012	2,269
Private	575	735	807	800	805	883	915
Not in active practice	393	590	640	793	898	926	971
Registered Midwives	529	487	473	456	449	437	415
Public	289	228	215	212	208	202	192
Private	100	103	100	91	86	85	84
Not in active practice	140	156	158	153	155	150	139

Source : Ministry of Health

Note : Registered health personnel in the public sector refer to Government, Government Restructured Hospitals and University personnel.

1 Refer to those with professional degrees only.

20.4 VISITS TO PUBLIC SECTOR DENTAL CLINICS

	Number						
	1991	1996	1997	1998	1999	2000	2001
Dental Clinics	1,092,143	1,121,728	1,097,675	1,083,261	1,067,945	955,626	990,131
School	825,318	797,231	795,158	788,556	771,940	677,774	685,362
Hospital ¹	165,778	187,980	38,122	24,868	9,739	-	-
Polyclinic Dental Services	101,047	96,372	100,084	89,063	103,804	99,018	102,743
National Dental Centre ²	-	-	117,288	133,817	135,698	136,023	155,875
NUH Dental Centre ³	-	40,145	47,023	46,957	46,764	42,811	46,151

Source : Ministry of Health

1 All Hospital Dental Clinics closed permanently with effect from 30 June 1999.

2 Started functioning with effect from March 1997.

3 Data not available prior to 1994.

20.5 NOTIFICATIONS OF SPECIFIC NOTIFIABLE DISEASES

	Number						
	1991	1996	1997	1998	1999	2000	2001
Dengue/DHF	2,179	3,128	4,300	5,258	1,355	673	2,372
Malaria	267	364	421	405	316	266	229
Enteric fever ¹	132	316	112	80	64	101	116
Viral Hepatitis	501	318	345	367	248	211	145
Cholera	34	19	11	31	11	10	8
Poliomyelitis	-	-	-	-	-	-	-
Diphtheria	1	1	-	-	-	-	-
Chicken pox	17,930	49,763	27,723	27,183	30,396	24,074	18,220
Viral Encephalitis	1	1	2	1	17	4	3
Legionellosis ²	-	-	-	-	-	19	52
Hand, Foot & Mouth Disease ²	-	-	-	-	-	3,362	5,187
Nipah Virus Infection ²	-	-	-	-	-	-	-
Tuberculosis	1,841	2,483	2,772	2,747	2,419	2,204	2,130
Leprosy	23	23	23	19	22	18	14

Source : Ministry of the Environment

Ministry of Health

Note : No cases of plague, smallpox and yellow fever were reported during the period.

1 Refer to typhoid and paratyphoid.

2 The three diseases were only made notifiable in October 2000.

20.6

IMMUNISATION BY PUBLIC AND PRIVATE SECTORS

No of Doses Given

	1995	1996	1997	1998	1999	2000	2001
BCG							
National	47,880	48,232	47,025	43,211	43,448	46,904	39,947
Public	21,221	20,467	21,081	20,182	20,203	19,461	19,083
Private	26,659	27,765	25,944	23,029	23,245	27,443	20,864
Diphtheria (DPT/DT)							
National	44,696	44,697	43,616	40,961	41,090	42,330	39,810
Public	31,682	31,244	29,922	27,248	26,114	24,449	23,977
Private	13,014	13,453	13,694	13,713	14,976	17,881	15,833
Poliomyelitis							
National	44,489	44,564	43,527	40,910	41,019	42,232	39,375
Public	31,644	31,160	29,876	27,215	26,084	24,434	23,916
Private	12,845	13,404	13,651	13,695	14,935	17,798	15,459
Measles							
National	43,376	43,366	42,907	39,783	43,201	40,362	41,052
Public	31,505	31,123	30,160	27,568	29,800	26,423	25,896
Private	11,871	12,243	12,747	12,215	13,401	13,939	15,156

Source : Ministry of Health

20.7 IMMUNISATION COVERAGE FOR CHILDREN WHO REACHED 1 YEAR AND 2 YEARS OF AGE

	1995	1996	1997	1998	1999	2000	2001
Children who reached 1 Year of Age							
BCG	97	96	97	97	96	97	97
Diphtheria (DPT/DT)	89	89	89	89	91	91	88
Poliomyelitis	89	89	89	89	90	90	88
Hepatitis B	85	86	87	88	89	89	87
Children who reached 2 Years of Age							
BCG	na	97	97	97	97	97	98
Diphtheria (DPT/DT)	na	90	90	90	92	92	91
Poliomyelitis	na	90	90	90	90	91	91
Hepatitis B	na	87	88	89	89	91	91
Measles	na	87	87	87	89	89	80

Source : Ministry of Health

20.8 VACCINATION AND IMMUNISATION OF SCHOOL CHILDREN

	1991	1996	1997	1998	1999	2000	2001
Thousand Doses							
BCG Vaccination ¹	31.8	33.5	35.4	33.0	38.6	47.7	21.9
Diphtheria Tetanus	76.4	84.8	89.7	82.9	90.3	101.2	96.1
Poliomyelitis Immunisation	75.7	84.6	89.5	82.7	89.8	100.6	95.8
Rubella ²	37.2	39.4	36.4	38.2	43.3	53.0	47.8

Source : Ministry of Health

¹ Discontinued with effect from 1 July 2001.² Figures from 1998 refer to MMR (Measles, Mumps and Rubella).

20.9 STUDENT MEDICAL CHECK-UP

	1991	1996	1997	1998	1999	2000	2001
Thousand							
Total	580.0	648.0	680.1	612.8	613.3	612.4	622.3
New Entrants	40.2	48.0	52.6	48.7	49.4	49.9	49.3
Primary School Leavers and equivalent levels	38.9	43.0	43.5	40.0	45.5	54.3	50.1
Secondary School Leavers and equivalent levels	36.0	35.9	49.3	42.2	39.9	41.2	41.6
Re-examination	461.8	517.1	530.7	475.7	476.5	466.3	480.9
Others ¹	3.1	4.0	4.0	6.2	2.0	0.7	0.4

Source : Ministry of Health

1 Figures from 1988 refer to Institute of Technical Education and Special School Students.

20.10 COMMON DEFECTS OF STUDENTS EXAMINED

	1991	1996	1997	1998	1999	2000	2001
Per 10,000 Males Examined							
Incidence of :							
Defective Vision	4,243	5,040	5,083	5,107	5,269	5,251	5,351
Obesity							
Primary School Entrants	1,426	1,256	1,057	1,131	1,057	1,080	1,118
Primary School Leavers	2,080	1,383	1,410	1,547	1,499	1,629	1,705
Secondary School Leavers ¹	1,634	1,120	1,223	1,203	1,184	1,343	-
Scoliosis	232	153	174	213	188	199	268
Asthma	462	866	979	945	838	969	1,026
Phimosis	301	253	209	135	291	211	170
Per 10,000 Females Examined							
Incidence of :							
Defective Vision	4,532	5,219	5,327	5,395	5,580	5,518	5,744
Obesity							
Primary School Entrants	1,217	1,199	1,087	1,038	985	1,074	1,037
Primary School Leavers	1,372	1,217	1,151	1,202	1,192	1,288	1,251
Secondary School Leavers ¹	1,357	1,096	1,218	1,160	1,136	1,273	-
Scoliosis ²	538	314	357	401	384	417	513
Asthma	308	631	688	717	727	773	757
Heart Conditions	229	272	180	188	120	111	117

Source : Ministry of Health

1 Discontinued Height/Weight measurement for Secondary 4 students with effect from 1 July 2001.

2 Figure from 2000 refer to Primary 6 and Secondary 2 students.

20.11

BLOOD DONATIONS AND TRANSFUSIONS

20.02

	1991	1996	1997	1998	1999	2000	2001
Donors (Persons)	45,302	48,155	49,156	42,808	43,510	45,414	40,451
Blood Donations Received (No of Units)	64,281	70,814	74,940	65,857	67,707	75,083	66,033
Centre for Transfusion Medicine ¹	34,450	34,036	35,682	32,894	33,507	39,799	34,237
Apheresis Donations ²	590	3,837	4,986	4,832	4,697	4,350	5,337
Mobile Red Cross ³	22,572	27,056	31,080	25,111	26,155	29,986	26,455
National University Hospital Blood Centre ⁴	3,096	4,097	3,167	2,530	3,621	246	-
	4,163	5,625	5,011	5,322	4,424	5,052	5,341
Blood Transfusions Given (No of Units)	55,258	58,790	60,779	53,980	56,523	58,885	59,917
Public Sector Hospitals	47,711	47,564	49,417	45,108	47,955	50,149	51,043
Private Sector Hospitals	7,547	11,226	11,362	8,872	8,568	8,736	8,874

Source : Ministry of Health

Notes : One unit of blood is approximately 430 millilitres.

Figures do not account for blood donated and issued at the blood bank in Mt Alvernia Hospital.

Apheresis is a specialised blood component donation process in which cell-separator machines draw out whole blood, separate specified components by centrifugation and return the rest of the blood to the donor.

1 Formerly known as National Blood Centre.

2 With effect from 1991, Apheresis donations in parenthesis, have been included in the total number of donations for Centre For Transfusion Medicine.

3 Ceased blood collection operation with effect from February 2000.

4 Blood collections from NUH Blood Centre were included in the National blood collection programme with effect from 1 November 1989.

21.1

LICENCED HAWKERS BY (a) TYPE OF PREMISES AND (b) TYPE OF GOODS SOLD (Period: 1999)

21

Year	1999	2000	2001	2002	2003	2004	2005
Total	14,887	14,416	14,501	14,864	15,168	15,411	15,182
Management Authority							
Housing & Development Board	13,435	13,739	13,563	14,200	14,268	14,950	15,339
JTC Corporation	185	139	196	190	207	210	227
Port of Singapore Authority	29	61	37	38	27	28	70
Private Market	407	427	387	410	296	193	376
Type of Goods Sold							
Market Produce	6,507	6,690	6,514	7,004	7,239	7,508	8,177
Cooked Food	5,420	5,396	5,511	5,577	5,557	5,753	5,880
Pierce & Sundries	1,753	1,773	1,750	1,807	1,725	1,962	2,125
Others	407	427	387	410	296	193	376

HAWKERS

AND

FOOD ESTABLISHMENTS

21.2

LICENCED HAWKERS BY (a) TYPE OF PREMISES AND (b) TYPE OF GOODS SOLD (Period: 1999)

Year	1999	2000	2001	2002	2003	2004	2005
Total	14,887	14,416	14,501	14,864	15,168	15,411	15,182
Management Authority							
Housing & Development Board	13,435	13,739	13,563	14,200	14,268	14,950	15,339
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Others	407	427	387	410	296	193	376

21 HAWKERS AND FOOD ESTABLISHMENTS

The Ministry of the Environment issues licences to hawkers and operators of food establishments. It ensures that all licensees observe proper food hygiene practices and that all food sold in Singapore is safe for consumption. To motivate licensees to keep their premises clean and hygienic, a grading scheme has been introduced.

Licensed Hawkers

The number of licensed hawkers in various types of premises managed by the

Ministry of the Environment has been decreasing over the years because of clearance of several markets and food centres for re-development.

Licensed Food Establishments

The total number of licensed food establishments has been on the rise over the past decade. Due to the increasing affluence among Singaporeans, there is a significant increase in the number of restaurants.

21.1

**LICENSED HAWKERS BY (a) TYPE OF PREMISES AND
(b) TYPE OF GOODS SOLD**
(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	4,689	3,868	3,867	3,698	3,369	3,224	3,141
Type of Premises							
Market/Food Centre	4,530	3,765	3,772	3,614	3,288	3,149	3,049
Show Case	18	8	6	4	4	4	2
Itinerant ¹	141	95	89	80	77	71	90
Type of Goods Sold							
Market Produce	1,856	1,490	1,471	1,437	1,238	1,174	1,107
Cooked Food	2,357	1,958	1,909	1,808	1,697	1,634	1,627
Piece & Sundries	476	420	487	453	434	416	407

Source : Ministry of the Environment

Note : Exclude private markets/food centres of Statutory Boards.

¹ Hawkers selling ice-cream, cakes or/and bread.

21.2

**LICENSED HAWKERS BY (a) MANAGEMENT AUTHORITY AND
(b) TYPE OF GOODS SOLD**
(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	16,182	15,411	15,168	14,864	14,503	14,416	14,087
Management Authority							
Housing & Development Board	15,509	14,950	14,608	14,200	13,863	13,739	13,435
JTC Corporation	227	210	207	190	196	189	186
Port of Singapore Authority	70	58	57	58	57	61	59
Private Market	376	193	296	416	387	427	407
Type of Goods Sold							
Market Produce	8,177	7,503	7,279	7,064	6,814	6,690	6,507
Cooked Food	5,880	5,753	5,667	5,577	5,512	5,506	5,420
Piece & Sundries	2,125	1,962	1,926	1,807	1,790	1,793	1,753
Others	-	193	296	416	387	427	407

Source : Ministry of the Environment

21.3

LICENSED FOOD ESTABLISHMENTS

(End of Period)

	1991	1996	1997	1998	1999	2000	2001
Total	8,410	9,512	9,743	10,172	10,480	10,604	11,256
Restaurants	1,236	1,807	1,942	2,065	2,146	2,247	2,332
Eating Houses	1,572	1,465	1,436	1,471	1,497	1,478	1,436
Snack Bars	773	1,348	1,469	1,665	1,756	1,735	1,868
Canteens	1,551	1,689	1,653	1,615	1,556	1,538	1,480
School	397	417	409	399	418	438	372
Others	1,154	1,272	1,244	1,216	1,138	1,100	1,108
Coffee Shops	158	92	83	73	61	46	38
Food Factories	1,460	1,236	1,174	1,199	1,214	1,194	1,206
Supermarkets	156	184	192	191	191	193	193
Others	1,504	1,691	1,794	1,893	2,059	2,173	2,703

Source : Ministry of the Environment

2001	2000	1999	1998	1997	1996	1995	Total
14,083	14,418	14,203	14,884	15,168	15,411	16,182	
13,408	13,739	13,563	14,200	14,508	14,950	15,500	Housing & Development Board
188	189	196	190	207	210	223	ITC Corporation
39	41	37	38	57	58	70	Port of Singapore Authority
403	427	387	416	396	393	376	Private Market
6,807	6,800	6,814	7,064	7,239	7,503	8,177	Market Products
2,520	2,500	2,512	2,577	2,607	2,723	2,880	Cooked Food
1,737	1,733	1,730	1,807	1,856	1,963	2,112	Preps & Snaffles
407	427	387	416	396	393	376	Others

Source : Ministry of the Environment

COMMUNITY SERVICES

SERVICES

COMMUN

The Ministry of Community Development and Sports (MCDS) provides a wide range of community services, which include: (i) the care, protection and rehabilitation of children and youth, and (ii) assistance programmes for the aged, the destitutes, the disabled, families with problems and victims of civil calamities. It also promotes neighbourliness, racial harmony and social cohesion among the people through a network of effective grassroots organisations.

In addition, the MCDS promotes the establishment of childcare centres to meet the needs of working mothers for alternative childcare arrangements for their children.

Grassroots Organisations

Grassroots organisations include Citizens' Consultative Committees, Community Centres/Club Management Committees, Residents' Committees, Women's Executive Committees, Senior Citizens' Executive Committees and Youth Executive Committees. These provide ample opportunities for residents to participate in the affairs of their communities and to interact with one another to promote better communication and closer rapport between the Government and the people.

Volunteers

"Volunteers", in the MCDS context, refer to individuals who are providing services in community and welfare programmes without receiving full market rates of remuneration or allowances.

Services for Senior Citizens

The MCDS and the Ministry of Health (MOH) undertake the planning, development and regulatory responsibilities

for services for senior citizens. Services which are primarily health-oriented in nature are under the purview of MOH, whilst services that emphasise social care are under MCDS. These services range from community-based services to residential care services. MCDS also works with various agencies to promote volunteerism amongst the elderly.

Child Care Programme

The main objectives of the child care programme are to promote and develop childcare centres and to supervise centres in accordance to the ChildCare Centres Act (Cap 37A) and Regulations (Cap 3A Section 19). The MCDS encourages individuals, organisations and employers in the public and private sectors to set up child care facilities. Most centres provide full-day and half-day care services for children between the ages of two and seven years.

Public Assistance

Public assistance (PA) is provided to help the financially distressed regain their independence. It is not intended as an unemployment, retirement or disability support. PA recipients are categorised as follows:

- (i) aged destitutes;
- (ii) the disabled, the mentally ill and the chronically sick who are rendered unfit to work;
- (iii) widows or deserted wives with dependent children;
- (iv) orphans; and
- (v) residents of residential institutions who require assistance to pay for their upkeep.

22.1

GRASSROOTS ORGANISATIONS
(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Community Development							
Councils (CDCs) ¹	-	-	9	9	9	9	5
Residents' Committees (RCs)	401	454	477	490	509	515	529
Citizens' Consultative							
Committees (CCCs)	81	81	82	83	83	83	83
CCC Area Committees	46	59	63	63	55	49	47
Community Centres/Club							
Management Committees (CCMCs)	107	115	111	104	103	104	106
Women's Executive							
Committees (WECs)	88	98	102	97	99	100	103
Neighbourhood Committees (NCs) ²	-	-	-	14	36	57	67
Youth Executive Committees (YECs)	90	93	92	93	94	95	94
Civil Defence Executive Committees							
(CDECs) ³	-	-	-	82	83	83	83
Senior Citizens' Executive							
Committees (SCECs)	91	237	243	252	297	338	369
Boys' Club Management							
Committees (BCMcs) ⁴	-	13	13	13	13	13	13
Building Fund Committees (BFCs) ⁵	64	83	85	81	71	71	73
Malay Activity Executive							
Committees (MAECs) ⁶	-	64	74	74	77	78	83
Indian Activity Executive							
Committees (IAECs) ⁷	-	-	-	68	77	79	81
Constituency Sports Clubs	81	81	83	83	83	83	83

Source : Ministry of Community Development and Sports

1 Community Development Councils were formed in 1997.

They were re-structured to 5 CDCs on 24 November 2001.

2 Neighbourhood Committees were formed in May 1998.

3 Civil Defence Executive Committees were formed in August 1998.

4 Boys' Club Management Committees were formed in 1996.

5 Building Fund Committees were formed in 1977.

6 Malay Activity Executive Committees were formed in 1995.

7 Indian Activity Executive Committees were formed in 1998.

22.2 VOLUNTEERS AND VOLUNTEER GROUPS

(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Community Service							
Total (Volunteers)	19,517	25,439	27,153	30,310	32,426	33,022	33,734
Community Development Councils ¹	-	-	227	227	233	293	312
RC/Block Representatives	8,958	10,869	11,072	11,202	11,499	11,131	11,439
CCC/CCC Area-Committees	2,555	2,964	3,434	3,586	3,577	3,568	3,537
Community Centre/Club Management Committees	2,121	2,418	2,772	2,742	2,776	2,750	2,786
Women's Executive Committees	1,111	1,410	1,469	1,502	1,529	1,548	1,601
Neighbourhood Committees	-	-	-	227	528	867	1,007
Civil Defence Executive Committees	-	-	-	1,357	1,442	1,443	1,447
Senior Citizen's Executive Committees	1,267	3,473	3,480	3,792	4,512	4,975	5,169
Boys' Club Management Committees ²	-	170	187	191	202	189	194
Building Fund Committees ³	925	1,469	1,566	1,473	1,381	1,410	1,438
Malay Activity Executive Committees ⁴	-	na	197	507	955	1,015	1,026
Indian Activity Executive Committees ⁵	-	-	-	715	936	953	948
Youth Executive Committees	1,399	1,451	1,527	1,516	1,535	1,522	1,433
Constituency Sports Club Members	1,181	1,215	1,222	1,273	1,321	1,358	1,397
Welfare Service							
Total (Volunteers)	574	558	360	509	531	646	657
Welfare Service Boards/Committees	75	165	64	31	31	31	29
Befrienders for the Aged Destitutes ⁶	126	64	20	26	20	30	30
Volunteer Probation Officers	330	315	266	316	302	338	344
Volunteers in Children Homes/Hostels ⁷	43	14	10	136	178	247	254
Total (Groups) ⁸	-	70	37	40	32	45	45
Groups of Befrienders for the Aged Destitutes	-	65	29	29	22	27	30
Groups of Volunteers in Children Homes/Hostels	-	5	8	11	10	18	15

Source : Ministry of Community Development and Sports

Note : RC = Residents' Committees. CCC = Citizens' Consultative Committees.

1 Community Development Councils were formed in 1997. They were re-structured to 5 CDCs on 24 November 2001.

2 Boys' Club Management Committees were formed in 1996.

3 Building Fund Committees were formed in 1977.

4 Malay Activity Executive Committees were formed in 1995.

5 Indian Activity Executive Committees were formed in 1998.

6 Woodlands Home for the Aged was closed in May 1997. From 1997 onwards, figures refer to Pelangi Home and Woody Lodge.

7 Figures from 1998 include individual volunteers from the Groups of Volunteers in Children Homes/Hostels.

8 "Groups" refers to volunteering services provided on a group basis.

22.3

ENROLMENT IN CHILD CARE CENTRES BY TYPE OF PROGRAMME AND ORGANISATION

(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	16,109	28,575	31,242	33,001	34,980	35,201	35,373
Full-Day Programme	14,337	26,051	28,408	29,804	31,186	30,985	29,566
People's Association	924	1,399	1,406	1,322	1,137	934	678
NTUC	1,236	2,227	2,333	2,472	2,455	2,699	2,758
Voluntary	4,787	7,910	8,271	9,082	9,894	9,753	9,096
Workplace ¹	1,140	1,820	2,071	2,373	2,386	2,125	2,273
Private	6,250	12,695	14,327	14,555	15,314	15,474	14,761
Half-Day Programme	1,772	2,524	2,834	3,197	3,794	4,216	5,807

Source : Ministry of Community Development and Sports

Notes : NTUC = National Trades Union Congress.

1 Include 14 centres set up by employers at workplace but run by private operators and 3 workplace centres run by NTUC Childcare Co-operative Ltd.

22.4

PUBLIC ASSISTANCE RECIPIENTS BY CATEGORY

(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	2,332	2,008	1,960	2,070	2,238	2,409	2,630
Aged Destitutes	2,030	1,707	1,659	1,687	1,789	1,930	2,181
Medically Unfit for Work	89	106	103	150	169	178	184
Abandoned/Distressed Wives & Orphans	75	58	54	63	76	78	75
Disabled Persons Under 60 years	95	115	121	147	187	211	179
Widows with Children under 12 years	43	22	23	23	17	12	11

Source : Ministry of Community Development and Sports

22.5

RESIDENTS IN OLD FOLKS' HOMES BY TYPE OF ORGANISATION AND SEX
(End of Period)

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	3,838	4,795	5,203	5,393	5,834	6,022	6,587
Males	1,747	1,946	2,181	2,297	2,511	2,667	2,904
Females	2,091	2,849	3,022	3,096	3,323	3,355	3,683
Government Welfare Home ¹	798	582	743	805	825	908	852
Males	666	487	631	672	684	745	694
Females	132	95	112	133	141	163	158
Sheltered Housing/ Community Homes	na	529	538	510	540	586	578
Males	na	205	206	191	205	243	235
Females	na	324	332	319	335	343	343
Voluntary Nursing Homes ²	2,070	2,398	2,593	2,688	2,979	3,190	3,713
Males	738	836	905	952	1,075	1,195	1,424
Females	1,332	1,562	1,688	1,736	1,904	1,995	2,289
Commercial Nursing Homes	970	1,286	1,329	1,390	1,490	1,338	1,444
Males	343	418	439	482	547	484	551
Females	627	868	890	908	943	854	893

Source : Ministry of Community Development and Sports
Ministry of Health

1 Figures include only those aged 60 years and above.

Woodlands Home for the Aged was closed in May 1997. From 1997 onwards, figures refer to Pelangi Home and Woody Lodge.

2 Data prior to 1993 include certain Sheltered Housing/Community Homes.

in 1949, the National Library was established to provide a central repository for the collection and preservation of books, documents, and other materials. The National Library has since grown into a major cultural institution, housing a vast collection of books, manuscripts, and other materials. It also provides a wide range of services, including lending, reference, and information services. The National Library is a key part of the cultural and recreational landscape of Singapore.

CULTURE AND RECREATION

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SAPRA Radio is a key part of the cultural and recreational landscape of Singapore. It provides a wide range of services, including lending, reference, and information services. SAPRA Radio is a key part of the cultural and recreational landscape of Singapore.

SPH MediaWorks Ltd

SPH MediaWorks Ltd is a key part of the cultural and recreational landscape of Singapore. It provides a wide range of services, including lending, reference, and information services. SPH MediaWorks Ltd is a key part of the cultural and recreational landscape of Singapore.

Media Corporation of Singapore

MediaCorp (Media Corporation of Singapore) which incorporates the former TCS (Television Corporation of Singapore), STV12 (Singapore Television Twelve) and RCS (Radio Corporation of Singapore) has more than 60 years of broadcasting history in Singapore. The MediaCorp Group of Companies comprises MediaCorp TV, MediaCorp TV12, MediaCorp News, MediaCorp Radio, MediaCorp Press, MediaCorp Publishing, MediaCorp Studios, MediaCorp Technologies and Other Businesses.

UnionWorks Pte Ltd

NTUC Media and SPH MediaWorks own UnionWorks Pte Ltd. The 50-50 joint venture owns, operates and manages WKRZ91.3FM and UFM100.3. WKRZ91.3 broadcasts in English whilst UFM100.3 is in Chinese.

SAFRA Radio

SAFRA Radio launched its English radio station, Power 98FM in October 1994, followed by a Chinese station, Dongli 88.3FM in June 1995. Both 24-hour stations play popular hits and new releases, targeted at reaching those aged between 18 to 35. The stations also provide in-depth news bulletins, features and interviews with celebrities and news-makers as well as the latest results of key sporting events.

SPH MediaWorks Ltd

SPH MediaWorks Ltd (MediaWorks) is the broadcasting arm of SGX-listed Singapore Press Holdings Ltd (SPH). In April 2001, MediaWorks was granted a license to operate two free-to-air television channels. From May 2001, MediaWorks' two stations,

Channel U and Channel i, have been broadcasting daily to the whole of Singapore.

Rediffusion

Rediffusion (Singapore) Pte Ltd, a licensed commercial audio broadcasting station since 1949, provides direct sound broadcasts to subscribers via cable on two channels. A new wireless Digital Audio Broadcasting (DAB) service was launched on 10 October 2000 to complement its existing service on the cable.

The Gold Channel broadcasts Chinese programmes daily from 6 am to 12 midnight and the Silver Channel carries 24 hours of non-stop English/Chinese programmes.

Cinema

Data on cinema attendances are compiled by the Singapore Department of Statistics from returns submitted by cinema organisations. Prior to April 1994, they were obtained from the Customs and Excise Department. Total attendances are based on the number of tickets sold.

Library

The National Library Board (NLB) provides essential library facilities as well as a variety of cultural, educational and recreational programmes for the community. In addition to the National Reference Library at Stamford Road, there are 18 Community Libraries, 2 Regional Libraries and 46 Community Children's Libraries. They provide books and audio-visual materials for loan, multimedia services, reference and information services.

The National Reference Library at Stamford Road provides books, multimedia materials, online database and collections of special interest for reference and research, as well as periodicals, newspapers, microforms

23 CULTURE AND RECREATION (cont'd)

and maps. It has a comprehensive collection of reference materials and information on and about Singapore. The National Reference Library also provides reference and enquiry services, both for on-site and remote users. On-site facilities include a Multimedia Centre and a General Reference Centre.

The computerised National Library System is a centralised system, which links all the libraries under the NLB. The computerised functions include cataloguing, acquisitions, serials, legal deposit, enquiries, loans and the on-line public access catalogue. Data on library membership, loans and collections are generated on a regular basis by the computer system.

On 7 September 2001, NLB launched the eLibraryHub, a digital library that offers users – the individuals, businesses and community groups – immediate access to a huge digital collection comprising 10,000 electronic books, 13,000 electronic magazines, journals and databases, etc.

Sports Facilities

The Singapore Sports Council (SSC) is responsible for the promotion of both competitive and recreational sports in Singapore. Through the "Sports for All" policy, it promotes a wide range of sports activities and programmes.

The SSC also provides a wide range of sports facilities for the public. Apart from the National Stadium and the Singapore Indoor Stadium, the SSC maintains and operates a number of stadiums, multi-purpose fields, sports halls, netball courts, squash courts, tennis courts, swimming pools and fitness parks and corners.

Sports Courses and Performing Arts

The People's Association (PA), a statutory board established on 1 July 1960, is a

community development agency. The PA organises and promotes group participation in social, cultural, educational, youth, sports, recreational and other wholesome activities to nurture inter-racial understanding at its community centres and community clubs. The community centres and community clubs conduct regular sports and performing arts courses.

The Arts

The National Arts Council (NAC) compiles data on arts activities from performing venues, arts groups and impresarios, newspapers and magazines. Prior to the implementation of goods and services tax in April 1994, pertinent data were also provided by the Customs & Excise Department. Popular entertainment shows (such as pop and rock concerts) are not included in the statistics.

Definitions

Performing Arts: Refers to folk, traditional, classical and contemporary dance, music, theatre and other performances. Traditional arts performances such as lion and dragon dances are excluded as they are usually performed for closed religious and ceremonial audiences. Performances classified as 'others' include multi-media and multi-discipline performances (eg. cultural performances staged at Community Centres/Clubs).

Visual Arts: Refers to public exhibitions of abstract or representational arts objects such as paintings, sculpture, pottery, ceramics, creative photography and installation art. Commercial applied arts like graphic and fashion design, film and video, jewellery design and handicraft are excluded.

23.1

TELEVISION LICENCES, CABLE VISION SUBSCRIBERS, REDIFFUSION
SUBSCRIBERS AND CINEMAS

(End of Period)

	1991	1996	1997	1998	1999	2000	2001
Television Licences ¹ (No)	595,730	681,597	600,382	704,296	677,008	760,640	815,757
Cable Vision Subscribers (No)	-	57,580	104,027	144,000	207,000	255,000	302,000
Rediffusion Subscribers (No)	39,484	24,903	22,132	19,013	16,236	14,496	13,436
Cinemas (No)	60	131	135	133	144	134	131
Seating Capacity ('000)	47	51	53	46	46	40	39
Attendances ('000)	20,736	17,258	17,347	16,397	14,774	13,441	13,563

Source : Singapore Broadcasting Authority

Singapore Cable Vision Ltd

Rediffusion (Singapore) Pte Ltd

Singapore Department of Statistics (with effect from April 1994)

1 Data prior to 1998 were based on cumulation of 12 months' figures. From 1998, data are as at end of the period.

23.2

RADIO AND TELEVISION TRANSMISSION

	1991	1996	1997	1998	1999	2000	2001
	Hours Per Week						
Radio (MediaCorp, UnionWorks & SAFRA ¹)	1,504	2,277	2,590	2,828	2,843	2,499	2,576
Television (MediaCorp & MediaWorks ²)	194	491	488	483	455	710	734

Source : Media Corporation of Singapore

UnionWorks Pte Ltd

SAFRA Radio

SPH MediaWorks Ltd

1 Operated with effect from October 1994.

2 Operated with effect from April 2001.

23.3

NATIONAL LIBRARY MEMBERSHIP, BOOK COLLECTIONS
AND LOANS OF BOOKS

	Thousand						
	1991	1996	1997	1998	1999	2000	2001
Membership	796.5	1,254.5	1,318.8	1,559.8	1,719.6	1,839.3	1,962.0
Persons Aged 12 years and Over ¹	619.9	1,006.7	985.6	1,268.9	1,394.6	1,486.7	1,554.7
Children Under 12 Years ²	176.6	247.8	333.2	290.9	325.0	352.6	407.3
Book Collections	2,726.2	4,123.5	4,846.1	5,162.7	5,419.8	6,065.4	6,861.1
English	1,685.1	2,706.2	3,210.7	3,236.4	3,454.7	3,897.2	4,409.8
Chinese	668.6	891.5	1,084.5	1,371.1	1,409.2	1,537.9	1,714.5
Malay	299.1	411.6	415.0	412.4	416.1	473.7	542.9
Tamil	73.3	114.2	136.0	142.8	139.8	156.6	193.9
Loan of Books	9,066.3	14,209.5	22,500.1	23,323.1	24,757.1	24,543.4	27,718.0
Persons Aged 12 Years and Over ¹	4,265.4	6,664.7	10,717.7	11,852.8	12,432.1	13,477.3	17,230.1
Children Under 12 Years ²	4,800.8	7,544.8	11,782.4	11,470.3	12,325.0	11,066.1	10,487.9

Source : National Library Board

1 From 1997 onwards, figures refer to persons aged 13 years and over.

2 From 1997 onwards, figures refer to children under 13 years.

23.4

DAILY NEWSPAPER CIRCULATION

	Number						
	1991	1996	1997	1998	1999	2000	2001
Total	930,622	1,071,733	1,092,898	1,125,521	1,148,137	1,197,301	1,586,483
English	432,606	511,488	524,525	539,495	545,523	551,463	982,894
Chinese	443,589	493,934	500,479	514,531	528,219	570,775	529,580
Malay	50,126	58,357	58,933	61,612	64,289	65,103	63,836
Tamil	4,300	7,953	8,961	9,882	10,106	9,960	10,173

Source : Singapore Press Holdings Ltd

MediaCorp Press Ltd

Notes : Refer to daily average circulation for January-December.

English Newspapers - The Straits Times/Sunday Times, Business Times, New Paper/New Paper Sunday.
Figure for 2001 includes Streets and TODAY.

Chinese Newspapers - Lianhe Zaobao, Lianhe Wanbao, Shin Min Daily News, Friday Weekly, Thumbs Up.

Malay Newspapers - Berita Harian/Berita Minggu.

Tamil Newspapers - Tamil Murasu/Tamil Murasu Sunday.

23.5 VISITORS TO PLACES OF INTEREST

	1991	1996	1997	1998	1999	2000	2001
Thousand							
Singapore History Museum	266.9	251.8	262.6	242.5	335.1	308.7	267.8
Singapore Art Museum ¹	-	104.8	159.6	183.5	180.8	133.9	131.8
Asian Civilisations Museum ²	-	-	47.7	85.9	141.6	71.3	70.3
Singapore Philatelic Museum ³	-	23.2	29.5	38.7	43.3	37.8	46.7
Singapore Science Centre	543.1	427.9	637.5	469.4	510.1	489.6	520.6
Singapore Zoological Gardens	1,164.5	1,509.0	1,410.6	1,319.4	1,386.3	1,323.3	1,428.6
Sentosa ⁴	3,320.0	4,100.0	3,497.0	3,309.4	3,370.7	3,392.5	3,759.4
Chinese/Japanese Gardens ⁴	395.5	251.6	247.6	216.5	209.7	205.8	245.6
Jurong Bird Park ⁴	1,026.7	1,510.9	1,107.9	817.6	889.1	969.3	930.0

Source : National Heritage Board

Singapore Science Centre

Singapore Zoological Gardens

Sentosa Development Corporation

Jurong Gardens Pte Ltd

Jurong Bird Park

1 Opened in January 1996.

2 Opened in April 1997.

3 Opened in August 1995.

4 Figures refer to financial years from April to March of the following year.

23.6 UTILISATION OF SPORTS FACILITIES

	1991	1996	1997	1998	1999	2000	2001
Number							
Attendances							
Swimming	5,418,025	6,801,879	6,446,163	6,819,658	6,368,590	6,366,938	6,894,293
Bookings							
Tennis	180,460	99,902	108,432	99,639	102,250	105,205	108,425
Badminton	86,166	149,193	155,399	181,858	205,474	228,684	264,588
Squash	65,194	41,519	35,459	35,433	28,298	23,818	24,991
Netball	678	4,613	5,133	5,044	5,042	6,016	6,732
Soccer	8,043	9,874	9,911	9,108	7,796	7,888	7,570
Hockey	1,471	1,801	1,777	2,098	3,328	4,154	3,308
Rugby	61	345	474	417	535	485	607
Athletics	571	641	649	694	616	693	663
Golf (Persons)	16,526	4,762	4,657	4,003	5,159	4,413	4,926

Source : Singapore Sports Council

Note : Data refer to sports facilities provided by Singapore Sports Council.

23.7

SPORTS AND PERFORMING ARTS COURSES CONDUCTED
BY COMMUNITY CENTRES/CLUBS

Type of Course	1991	1996	1997	1998	1999	2000	Number 2001
Classes							
Sports Courses	2,309	2,540	2,243	2,795	3,010	3,355	3,931
Ball Games	323	133	75	67	94	62	57
Board / Intellectual Games	-	11	2	-	1	29	33
Keep Fit	364	313	308	343	478	601	830
Martial Arts	818	824	904	908	1,022	1,192	1,284
Performing Sports	118	96	120	108	98	140	72
Water Sports	686	1,163	834	1,369	1,317	1,331	1,655
Performing Arts Courses	5,679	5,700	4,018	4,492	14,500	12,420	15,943
Dance	2,911	2,300	1,596	1,679	5,400	3,941	5,165
Drama	22	300	270	318	500	688	898
Music	2,738	2,000	1,350	1,659	6,300	6,332	7,981
Vocal ¹	-	1,100	797	836	2,300	1,459	1,899
Others	8	-	5	-	-	-	-
Participants							
Sports Courses	41,143	38,788	36,631	40,872	43,773	46,220	59,113
Ball Games	3,196	1,670	994	806	1,251	526	553
Board / Intellectual Games	-	84	14	-	9	358	380
Keep Fit	5,996	4,767	4,518	4,979	6,438	8,574	13,854
Martial Arts	22,020	17,067	19,256	18,844	21,913	22,858	28,534
Performing Sports	3,319	2,114	2,933	2,432	1,852	1,626	880
Water Sports	6,612	13,086	8,916	13,811	12,310	12,278	14,912
Performing Arts Courses	90,190	99,000	130,052	137,477	156,200	108,665	148,855
Dance	54,942	46,000	62,681	69,559	79,600	60,399	83,972
Drama	396	9,000	9,327	8,056	7,500	7,933	11,070
Music	34,452	18,000	19,768	22,447	26,500	12,399	17,385
Vocal ¹	-	26,000	38,105	37,415	42,600	27,934	36,428
Others	400	-	171	-	-	-	-

Source : People's Association

Note : Prior to 1998, period refers to financial year from April to March of the following year.

From 1998 onwards, period refers to calendar year.

¹ Prior to financial year 1993, Vocal was grouped under Music.

23.8 THE ARTS

Arts Form	1991	1996	1997	1998	1999	2000	2001
Performing Arts							
Total Performances ¹	1,698	2,824	2,510	3,777	3,765	3,870	4,110
Music	552	845	854	1,125	1,265	1,319	1,354
Dance	96	339	253	369	474	493	446
Theatre	952	1,297	1,212	1,624	1,642	1,647	1,974
Others	98	343	191	659	384	411	336
Ticketed Performances	1,163	1,658	1,511	1,749	2,066	2,055	2,202
Music	371	361	399	389	501	521	538
Dance	82	192	133	166	155	194	199
Theatre	642	992	926	1,139	1,278	1,266	1,424
Others	68	113	53	55	132	74	41
Attendance ²	678,970	705,142	754,115	821,698	914,020	857,892	939,728
Music	276,488	223,407	245,158	258,252	287,931	300,138	308,224
Dance	56,849	98,579	84,204	89,009	87,639	147,074	87,488
Theatre	292,169	337,741	391,612	432,912	369,120	349,453	515,762
Others	53,464	45,415	33,141	41,525	169,330	61,227	28,254
Visual Arts Exhibitions							
Number	255	273	346	399	406	520	518
Days	2,443	3,270	4,115	6,164	7,654	8,376	8,515

Source : National Arts Council

1 Includes both ticketed and non-ticketed performances.

2 Refers to ticketed attendance only.

23.9 REGISTERED ARTS SOCIETIES AND COMPANIES

Arts Discipline	Number					
	1996	1997	1998	1999	2000	2001
Societies ¹						
Total	205	215	213	224	228	236
Music	53	55	54	59	61	64
Dance	19	20	21	21	23	22
Chinese Opera	10	10	10	10	12	11
Theatre	35	40	39	41	43	47
Literature	13	13	13	13	14	16
Visual Arts	36	36	35	39	36	36
Photography	9	9	9	9	10	11
Multi-Discipline	30	32	32	32	29	29
Companies ²						
Total	201	198	212	220	256	270
Music	10	10	11	14	19	19
Dance	5	5	5	8	10	11
Chinese Opera	24	24	29	27	27	29
Theatre	17	18	19	25	32	45
Visual Arts	134	130	137	135	150	143
Multi-Discipline	11	11	11	11	18	23

Source : National Arts Council

1 Include arts societies registered under Registrar of Societies.

2 Include arts companies registered under Registrar of Companies and Businesses.

MISCELLANEOUS

24

1992	1993	1994	1995	1996	1997	1998
1,890.2	1,890.2	1,890.2	1,890.2	1,890.2	1,890.2	1,890.2
4,556.9	4,556.9	4,556.9	4,556.9	4,556.9	4,556.9	4,556.9
6,486.5	6,486.5	6,486.5	6,486.5	6,486.5	6,486.5	6,486.5
5,128.7	5,128.7	5,128.7	5,128.7	5,128.7	5,128.7	5,128.7
1,748.1	1,748.1	1,748.1	1,748.1	1,748.1	1,748.1	1,748.1

Electricity was first made available to the Republic in 1906. Today, electricity is generated by PowerGen, PowerAsia and Tans Power, which together operate 5 power stations. The total installed generating capacity is 7,976 megawatts (MW).

MISCELLANEOUS

A network of 400 kilovolt (kV), 230kV, 66kV, 22kV, 6.6kV and 0.4kV cables interlinked by transformers at substations forms PowerGrid's transmission system whereby electricity is supplied from the power stations to the customers. The network now consists of about 21,206 kilometres of cable circuits, 48,256 megawatt-hours of transformer capacity and 9,071 substations. In order to meet future demand for electricity, PowerGrid has put in place a new extra high voltage of 400kV transmission system to enhance the fault handling capability of the grid system while at the same time providing economic transmission of electricity supply.

PowerGen is the sole gas transporter and gas system operator in Singapore. It uses a fully automated state-of-the-art supervisory Control and Data Acquisition (SCADA) system to monitor and control the transmission and distribution network. Gas is made available island-wide through our 2,600 km pipeline network.

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Electricity

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A network of 400 kilovolt (kV), 230kV, 66kV, 22kV, 6.6kV and 0.4kV cables interlinked by transformers at substations forms PowerGrid's transmission and distribution system whereby electricity is supplied from the power stations to the customers. The network now consists of about 21,206 kilometres of cable circuits, 46,526 megavolt-amperes of transformer capacity and 9,031 substations. In order to meet future demand for electricity, PowerGrid has put in place a new extra high voltage of 400kV transmission system to enhance the fault handling capability of the grid system while at the same time providing economic transmission of electricity supply.

Gas

PowerGas is the sole gas transporter and gas system operator in Singapore. It uses a fully automated state-of-the-art Supervisory Control and Data Acquisition (SCADA) system to monitor and control the transmission and distribution network. Gas is made available island-wide through our 2,600 km pipeline network.

Fire Occurrences

The Singapore Civil Defence Force's (SCDF) mission is to protect and save lives and property for a safe and secure Singapore. The data on fire occurrences are compiled by the SCDF.

Definitions

Residential buildings: Refers to all buildings, either permanent or temporary, used for residential purpose only. It does not include hotels, boarding houses, hostels, etc.

Public, commercial and industrial buildings: Refers to all buildings, either permanent or temporary, used for other than residential purpose, such as commercial, manufacturing, storage, sales, services and public buildings.

Non-building: Refers to all other properties or things other than buildings, such as vehicles, vessels, aircraft, electrical cables, bridges, canal, discarded material, vegetation, etc.

Criminal offences

Singapore's crime statistics are compiled from offences reported to the police during the reference period and not at the time the offences were actually committed.

24.1 ELECTRICITY GENERATION AND SALES

Gigawatt Hours								
	1991	1996	1997	1998	1999	2000	2001	
Generation	16,596.6	23,458.4	26,188.1	28,283.2	29,520.1	31,665.0	33,088.5	
Sales	15,088.8	21,906.1	24,627.8	26,072.9	27,082.5	29,173.3	29,653.4	
Domestic	2,657.8	4,162.9	4,736.9	5,328.4	5,344.1	5,726.3	5,984.6	
Manufacturing	7,079.1	9,659.1	10,946.5	11,117.1	11,655.6	12,009.6	11,821.6	
Other Industries	5,351.9	8,084.0	8,944.5	9,627.4	10,082.8	11,437.5	11,847.3	

Source : PowerGrid Ltd

24.2 GAS SALES

	1991	1996	1997	1998	1999	2000	2001
Piped Gas Sales (million units) ¹	852.9	1,151.3	1,218.2	1,266.1	1,306.8	1,363.1	1,370.8
Domestic	na	412.3	431.6	464.6	486.7	510.3	516.8
Non-Domestic	na	739.0	786.6	801.6	820.1	852.8	854.1
LP Gas Sales (net tonnes)	120,632.7	127,064.1	125,330.9	124,697.9	122,152.6	123,000.3	117,323.7
Domestic	na	79,623.2	77,864.7	78,179.7	78,705.2	81,619.5	75,971.7
Non-Domestic	na	47,440.9	47,466.1	46,518.2	43,447.4	41,380.9	41,352.0

Source : Singapore Department of Statistics

PowerGas Ltd

One unit is equivalent to one kilowatt hour

¹ Figures from 2000 onwards are estimated.

24.3 FIRE OCCURRENCES

Type of Property	1991	1996	1997	1998	1999	2000	2001
Total	5,740	5,508	6,705	6,047	5,850	5,280	5,095
Building	3,325	4,021	4,430	4,604	4,696	4,320	4,264
Residential	2,176	3,287	3,620	3,796	3,876	3,560	3,499
Commercial & Industrial	1,149	734	810	808	820	760	765
Non-Building	2,415	1,487	2,275	1,443	1,154	960	831

Source : Singapore Civil Defence Force

24.4 SELECTED CRIMINAL OFFENCES

Type of Offence	1991	1996	1997	1998	1999	2000	2001
Number of Cases Reported							
Robbery	1,404	768	741	895	663	463	562
Housebreaking	3,520	1,737	1,526	1,687	1,562	993	965
Motor Vehicle Theft	3,346	2,467	2,242	2,736	2,149	1,651	1,252
Snatch Theft	678	313	315	452	348	299	304
Per 100,000 Population							
Robbery	45	21	20	23	17	12	14
Housebreaking	112	47	40	43	40	25	23
Motor Vehicle Theft	107	67	59	70	54	41	30
Snatch Theft	22	9	8	12	9	7	7

Source : Police Intelligence Department

SINGAPORE DEPARTMENT OF STATISTICS

LATEST EDITIONS OF PUBLICATIONS

Prices in S\$
(excluding postage)

General

1	Monthly Digest of Statistics Singapore	5.00
2	A Guide to Singapore Official Statistics	8.00
3	Yearbook of Statistics Singapore, 2002	8.50
4	Singapore 2002, Statistical Highlights	13.50
5*	Singapore In Figures, 2001	—
6*	Singapore In Brief, 2002	—
7*	2002 Singapore Data Sheet	—
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