

TRADE POLICY REVIEW

SINGAPORE

Report by the Government

Pursuant to the Agreement Establishing the Trade Policy Review Mechanism (Annex 3 of the Marrakesh Agreement Establishing the World Trade Organization), the policy statement by the Government of Singapore is attached.

Note: This report is subject to restricted circulation and press embargo until the end of the meeting of the Trade Policy Review Body on Singapore.

CONTENTS

	<i>Page</i>
I. IMPACT OF THE REGIONAL CRISIS ON SINGAPORE	4
(1) A CRISIS OF CONFIDENCE	4
(2) FIRST TECHNICAL RECESSION SINCE 1985	4
(i) Sectoral performance	5
(ii) Merchandise trade	6
(iii) Services trade	7
(3) BEYOND THE CRISIS	8
II. SINGAPORE'S RESPONSE	9
(1) SINGAPORE'S RESPONSE	9
(i) Short-term measures	9
(ii) Long-term measures	9
(2) DRAWING OUT THE KEY LESSONS	10
(i) Importance of manufacturing	10
(ii) Pro-business tripartism	10
(iii) Flexible exchange rate	10
(iv) Labour flexibility	10
(v) Prudent fiscal policy	11
III. BEYOND THE CRISIS	12
(1) CHALLENGES AHEAD	12
(2) STRATEGIES FOR SINGAPORE	12
(i) Manufacturing and services as twin engines	12
(ii) Strengthening the external wing	18
(iii) Building world-class companies	20
(iv) Strengthening our base of small and medium local enterprises	20
(v) Human and intellectual capital as a key competitive edge	22
(vi) Leveraging on science, technology and innovation	25
(vii) Optimizing resource management	27
(viii) Government as business facilitator	28
(3) CONCLUSION	29

I. IMPACT OF THE REGIONAL CRISIS ON SINGAPORE

(1) A CRISIS OF CONFIDENCE

1. Despite our strong fundamentals, Singapore did not escape unscathed from the crisis that buffeted the region, due to our close economic interdependence with the neighbouring economies. Between 1 July 1997 and 31 December 1998, our stock market fell by 28%, while the Singapore dollar lost about 14% of its value against the U.S. dollar. Real GDP growth fell sharply from 8.9% in 1997 to 0.3% in 1998. But we were less badly hit than many of our neighbours, who slipped into negative growth for the first time in more than a decade.

2. Recovery, however, has been relatively quick, quite against initial expectations. After two quarters of negative growth in the second half of 1998, the Singapore economy returned to positive territory in 1999. The V-shaped recovery was driven by a sharp global electronic upturn, which fuelled not only our manufacturing activities but boosted recovery in other Southeast Asian countries as well. Our cost-cutting measures, implemented in the thick of the crisis, had also enabled Singaporean exporters to benefit from the surge in external demand.

(2) FIRST TECHNICAL RECESSION SINCE 1985

3. The full impact of the crisis was felt in 1998, as deepening recessions in most parts of Asia led to a slump in Singapore's external demand.¹ The sharp depreciation in the regional currencies eroded our relative cost competitiveness. The global over-capacity in the electronics industry further contributed to the decline in Singapore's manufacturing sector. As a result, real GDP growth slowed significantly as the year progressed – from 4.4% in the first quarter of 1998 to 0.1% in the second quarter, -2.1% in the third quarter and -1.1% in the fourth quarter. On an annual basis, real GDP growth fell sharply from 8.9% in 1997 to 0.3% in 1998. About 29,000 workers were retrenched in 1998, close to three times that recorded in 1997, while the seasonally adjusted unemployment rate rose to 4.4% in December 1998 compared with 2% in December 1997. Our inflation rate and productivity growth slipped into negative territory.

4. The key economic indicators from 1995 to 1999 are listed in Table 1.

Table 1
Key Economic Indicators

Indicator	1995	1996	1997	1998	1999 Q1-Q3
Gross Domestic Product:					
At Current Market Prices (S\$ million)	118,601.9	129,022.9	142,451.0	141,328.0	NA
Annual Change (per cent)	11.2	8.8	10.4	-0.8	NA
At 1990 Market Prices (S\$ million)	102,941.9	110,722.7	120,587.4	120,888.9	94,445.9
Annual Change (per cent)	8.1	7.6	8.9	0.3	4.7*
Per Capita GNP in S\$	35,139.3	36,931.8	39,714.1	38,198.4	NA
Gross Fixed Capital Formation:					

Table 1 (cont'd)

¹ A significant proportion of Singapore's external demand is attributed to Asia. In 1996, Singapore's trade with Asian countries accounted for approximately 60% of our total world trade.

Indicator	1995	1996	1997	1998	1999 Q1-Q3
At Current Market Prices (\$ million)	39,973.3	49,548.5	54,382.1	52,260.2	NA
Average US\$/S\$	1.4174	1.4101	1.4848	1.6736	1.7020
Inflation Rate (CPI Change, per cent)	1.7	1.4	2.0	-0.3	0.1
Unemployment Rate (per cent)	2.0	2.0	1.8	3.2	3.6
Productivity (Annual Change, per cent)	3.0	1.3	2.6	-2.5	NA

* Full year preliminary estimate is 5.6%, as announced by Singapore Prime Minister Goh Chok Tong on 31 December 1999.

Source: Singapore Department of Statistics Manpower Research & Statistics Department, Ministry of Manpower Monetary Authority of Singapore.

(i) Sectoral performance

5. Growth in all sectors moderated significantly in 1998, with the manufacturing, financial services, wholesale and retail trade, and hotels and restaurants sectors contracting. The manufacturing sector was plagued by oversupply in the electronics industry and weak regional demand for petroleum and petrochemical products. The financial services sector was affected by the severe curtailment in offshore lending. The decline in entrepot trade and visitor arrivals affected the wholesale and retail trade, hotels and restaurants, and transport and communications sectors, while the smaller pipeline of projects lowered construction growth.

6. The sectoral performance indicators from 1995 to 1999 are listed in Table 2.

Table 2
Annual percentage change in sectors of the Singapore economy; at 1990 market prices

Sector	1995	1996	1997	1998	1999 Q1-Q3
TOTAL	8.1	7.6	8.9	0.3	4.7*
Goods Producing Industries	9.5	7.1	7.3	0.9	5.4
Manufacturing	10.0	2.9	4.5	-0.4	12.8
Construction	8.8	22.0	15.3	4.0	-12.7
Utilities	6.2	7.3	10.8	4.9	2.6
Other Goods Industries	-3.1	3.5	0.1	-7.2	-5.2
Services Producing Industries	7.6	8.1	10.2	-0.3	3.5
Wholesale & Retail Trade	9.6	6.1	6.4	-4.1	4.4
Hotels & Restaurants	5.3	8.5	1.9	-3.3	1.7
Transport & Communications	10.6	8.5	9.2	5.3	6.6
Financial Services	3.6	7.5	23.4	-8.8	2.8
Business Services	7.9	9.0	8.5	4.9	0.5
Other Services Industries	6.2	10.4	7.0	4.2	2.8
Owner-Occupied Dwellings	5.2	5.9	5.8	7.4	7.7

* Full year preliminary estimate is 5.6%, as announced by Singapore Prime Minister Goh Chok Tong on 31 December 1999.

Source: Singapore Department of Statistics.

(ii) Merchandise trade

7. Our external merchandise trade in 1998 contracted by 7.5%, caused primarily by a sharp drop of 14.6% in our trade with the crisis-hit economies (which make up about 40% of our total trade). Fortunately, our trade with other markets in the U.S. and Europe remained healthy, which helped to cushion the decline. It was a severe downturn from the period 1994 to 1997, during which growth in our external trade averaged 10.4% per annum. Singapore's trade performance from 1995 to 1999 is listed in Table 3.

Table 3
Singapore's trade performance, 1995-99

TRADE	Singapore's trade performance (at current prices, S\$ billion)					Annual percentage change in trade (%)				
	1995	1996	1997	1998	Jan-Nov 1999	1995	1996	1997	1998	Jan-Nov 1999
TOTAL TRADE	343.8	361.5	382.2	353.6	345.5	13.2	5.1	5.7	-7.5	6.6
Imports	176.3	185.2	196.6	169.9	170.2	12.7	5.0	6.2	-13.6	9.5
Exports	167.5	176.3	185.6	183.8	175.3	13.7	5.2	5.3	-1.0	3.9
Domestic Exports	98.5	103.6	107.5	105.9	105.0	11.2	5.2	3.8	-1.5	8.3
Non-oil	84.8	87.0	91.6	92.4	91.5	13.7	2.7	5.3	0.9	8.0
Oil	13.7	16.6	15.9	13.5	13.5	-1.9	20.6	-3.9	-15.3	9.8
Re-Exports	69.0	72.7	78.1	77.8	70.3	17.4	5.3	7.4	-0.3	-2.0

Source: Singapore Trade Development Board.

(a) Exports

8. Our exports in 1998 only dipped slightly. In fact, non-oil domestic exports registered a marginal increase of 0.9%, as our export markets are diversified, with about 40% of our exports going to the crisis-hit economies and 40% to the U.S. and Europe. The effects of depressed demand from the crisis-hit economies were thus cushioned by sustained demand from developed markets in the West.

9. The demand from developed markets was mainly in non-electronic products such as pharmaceuticals. Export demand for our key electronic products, which make up 69% of our non-oil domestic exports, was weak, plagued by oversupply in the global electronics market. Our domestic exports of oil also declined significantly due to the plunge in oil prices as well as sluggish demand from the Asian economies, which accounted for about 80% of our oil domestic exports. Our re-exports also fell marginally in 1998, as the crisis weakened the import-ability of the affected economies, especially for domestic consumption.

(b) Imports

10. Our imports shrank by 13.6% in 1998, as a consequence of sluggish industrial activity and weak consumer demand in Singapore (for retained imports), as well as weak demand from the region (for re-exports). The decline was largely in imports of oil, printed circuit board assembled (PCBAs), disk drives, parts of semiconductors, disc media products, parts of colour televisions (CTVs), radios and video cassette recorders (VCRs), cigarettes and parts of aircraft.

(c) Trade balance

11. Unlike the preceding years in which we recorded a trade deficit, our trade balance recorded a surplus of S\$13.9 billion in 1998. Manufacturers ran down inventory in 1998 in view of the uncertain economic conditions.

(iii) Services trade

12. Singapore's total trade in services shrank by almost 18% in 1998, compared with 5.8% growth in 1997. The crisis resulted in a 32% fall in exports of services, compared with growth of 7.2% in 1997. The decline was due to several factors. First, lower receipts from travel services as a result of the fall in visitor arrivals. Second, lower receipts from freight and port services as a result of the sluggish regional trading environment. Third, lower receipts from financial services as a result of dampened foreign interest in the stock market. Meanwhile, although imports of services continued to grow, this masked the slower growth in payments for travel services as a result of fewer Singaporeans travelling abroad.

(a) Service balance

13. The surplus in our trade in services amounted to only S\$553 million in 1998. This largely reflected the widening of the transportation deficit to S\$2.6 billion and the travel deficit of S\$744 million.

14. Singapore's trade in services from 1995 to 1999 is given in Table 4.

Table 4
Singapore's trade in services, 1995-99

Indicator	Singapore's trade in services (at current prices, S\$ billion)					Annual percentage change in trade in services (%)				
	1995	1996	1997	1998	1999*	1995	1996	1997	1998	1999*
Total Trade in Services	67.44	70.02	74.08	60.79	53.12	19.5	3.8	5.8	-17.9	20.6
Exports of Services	42.26	42.24	45.28	30.67	29.21	20.1	-0.1	7.2	-32.3	33.8
Transportation	7.27	7.32	7.66	7.45	5.67	17.7	0.8	4.6	-2.7	0.9
Travel	10.98	10.55	9.45	7.68	6.48	6.0	-3.9	-10.5	-18.7	12.8
Insurance	0.50	0.56	0.66	0.70	0.58	-0.3	11.4	18.1	5.7	11.8
Gov't Services	0.13	0.14	0.14	0.14	0.10	-17.6	4.6	0.0	1.4	0.3
Other Services	23.39	23.67	27.37	14.70	16.38	29.9	1.2	15.6	-46.3	66.4
Imports of Services	25.17	27.78	28.80	30.12	23.90	18.6	10.4	3.7	4.6	7.6
Transportation	8.40	9.86	8.86	10.01	7.87	14.7	5.5	5.9	6.7	6.1
Travel	7.12	8.07	8.35	8.43	6.38	20.5	13.3	3.5	0.9	4.0
Insurance	1.38	1.42	1.48	1.23	0.98	17.2	2.5	4.9	-17.4	5.9
Gov't. Services	0.17	0.14	0.17	0.19	0.14	11.6	-18.1	21.1	13.1	-3.2
Other Services	8.10	9.30	9.41	10.27	8.54	21.6	14.7	1.3	9.0	12.4

* First three quarters data.

Source: Singapore Department of Statistics.

(3) BEYOND THE CRISIS

15. Against most expectations, the Singapore economy staged a strong recovery in 1999. It grew by a preliminary 5.6%, helped by several positive external factors – the strong upswing in the global electronics industry, the gradual recovery in the regional economies including Japan, continued growth in the U.S. and the EU, as well as our own cost-cutting measures. The growth momentum for most of our key economic sectors has clearly turned stronger, although the construction sector is still languishing and there are pockets of weakness in the manufacturing sector.

16. Singapore is now out of the woods and firmly on the road to economic recovery. The outlook for 2000 is positive. The strong demand for electronics products is expected to continue. The global economy is expected to expand further on the back of continued robust growth in Europe and the U.S., although there is some lingering risk of a sharp fall in U.S. stock prices. The regional economies are expected to recover further. Taking all factors into account, the preliminary GDP forecast for 2000 is 4.5% to 6.5%.

17. While the outlook for 2000 is encouraging, the reality is that the economic landscape in the region has changed. In the aftermath of the Asian crisis, many regional countries are now restructuring their economies, and will become more formidable competitors. The advances in technology and the momentum of globalization have also continued unabated. Singapore recognizes that we must transit into a Knowledge-based Economy, in order to remain globally competitive. It cannot be business as usual.

II. SINGAPORE'S RESPONSE

(1) SINGAPORE'S RESPONSE

1. The primary cause of Singapore's economic slowdown in 1998 was the sharp fall in external demand rather than fundamental problems intrinsic to our domestic economy. Our financial system was sound and transparent, our fiscal and monetary policies were prudent, and there was an absence of systemic weaknesses.

2. Once we recognized the severity of the situation, we acted quickly, firmly and rationally. We continued to keep our markets free and open. Our policies remained consistent, and favourable towards investors. We also took a number of immediate measures to restore some of our competitiveness and cushion the impact of the crisis.

(i) Short-term measures

3. The depreciation of the regional currencies relative to the Singapore dollar had eroded the competitiveness of our trade and services exports.

4. In response, the Monetary Authority of Singapore (MAS) managed our exchange rate more flexibly, consistent with economic fundamentals, in order to sustain confidence in the Singapore dollar while maintaining our external cost competitiveness. In the second half of 1998, MAS widened the band within which the Singapore dollar could fluctuate, in response to the increased volatility and uncertainty of financial markets.

5. As the solution to cost containment did not lie in simply depreciating the Singapore dollar to match the regional currencies, the government also addressed cost-competitiveness directly by reducing business costs. In June 1998, it announced a S\$2 billion off-budget package comprising measures to ease business costs (e.g. property tax rebates, and rebates or rental reductions for land, services and utility charges), enhance Singapore's economic infrastructure and stabilize specific sectors of the economy.

6. In November 1998, the government unveiled another S\$10.5 billion cost-cutting package to help companies cope with the economic downturn and to minimize unemployment, in response to the recommendation by the Committee on Singapore's Competitiveness (CSC). The government's package of cost-cutting measures included the following:

- (a) 15% reduction in labour costs, comprising a 10% point reduction in employers' Central Provident Fund (CPF) contributions and a reduction in variable wages;
- (b) Corporate tax rebate of 10% and extension of the 55% property tax rebate; and
- (c) Reduction in land rentals and other Government fees and tariffs.

(ii) Long-term measures

7. The CSC also critically re-examined Singapore's economic competitiveness over the next decade and proposed strategies to strengthen Singapore's long-term competitive position. Even as we implemented immediate measures to address the regional economic crisis, we were conscious that we had to adopt at the same time longer-term measures to propel Singapore ahead beyond the financial crisis. The eight key strategies the CSC proposed are further elaborated in Chapter III.

(2) DRAWING OUT THE KEY LESSONS

8. During the crisis, hardly any Asian economy was spared the panic and contagion. However, each economy's experience was different, in terms of how each was affected, how external problems interacted with internal weaknesses, and how each government responded. It is important that we draw out the key lessons, that we can apply when responding to future crises.

9. In the case of Singapore, although we expected the 1998 recession to be our worst economic crisis since independence, fortunately, most of our fears did not materialize. We were less affected by the crisis because of our sound economic and financial fundamentals. Nonetheless, by comparing the 1998 recession with our previous recession in 1985, we drew some useful lessons.

(i) Importance of manufacturing

10. The first lesson is the important role played by manufacturing in the Singapore economy. In both the 1985 and 1998 recessions, our sharp (V-shaped) recovery was underpinned by the manufacturing sector because it was a sector in which we were globally competitive. Although we had a thriving services sector, its domain was mainly regional. As such, when the region was badly affected by the crisis in 1998, our services sector was also badly hit. In contrast, our manufacturing sector had markets that reached beyond the region, and was able to capitalize on the robust growth in the EU and U.S. markets to buffer the decline in our services trade with the region.

11. Our diversified economic structure, comprising a globally competitive manufacturing sector and a regionally oriented services sector, is an important cornerstone of our economic policy. Singapore intends to preserve the prominent status of manufacturing in our economy, and at the same time, upgrade the competitiveness of our services sector to make Singapore a global, rather than a regional, services hub.

(ii) Pro-business tripartism

12. The second lesson is the important role played by our pro-business tripartism in Singapore. In both the 1985 and 1998 recessions, decisive action to restore export competitiveness was implemented swiftly with positive results.

13. In November 1998, the Government forged a consensus among unions and employers to implement a major cost cutting package worth S\$10.5 billion to help restore export competitiveness. Although the package comprised largely wage reductions, workers accepted that this was necessary. There was no social unrest. This is an example of tripartism and social cohesion in Singapore. It is a major competitiveness strength of Singapore, which we are determined to preserve and protect.

(iii) Flexible exchange rate

14. The third lesson is the importance of a flexible exchange rate. Our flexible exchange rate regime allowed us more room to respond to the sharp decline in the external environment, while keeping our interest rate low.

(iv) Labour flexibility

15. The fourth lesson, learnt from the 1985 recession, is the importance of labour flexibility. One of the major policy changes which arose out of the 1985 recession was to promote greater wage flexibility. Since 1985, we have, through tripartism cooperation, pushed for a significant increase in the variable component of total wages. As a result, the variable component of our wages has

increased steadily from 11% in 1987 to 16% 1997. This has allowed us to react more quickly in the 1998 recession by adjusting the variable wage component, and supplementing it with a smaller cut of 10 percentage points to the employers' CPF rate (compared to 1985 when the employers' CPF rate was cut by 15 percentage points).

16. However, the 1998 experience has taught us that even this is not enough. This is because most of the variable wages are currently in the form of annual bonuses, which are normally paid at the end of the year. So if a wage cut is necessary at the beginning of the year, cutting year-end bonuses may be too slow.

17. We are thus encouraging companies to introduce a monthly variable component into employees' wages. In other words, variable components will be found in each month's pay, and not just in the year-end bonus. This will allow wages to be adjusted more speedily when required.

(v) Prudent fiscal policy

18. Finally, the importance of prudent fiscal policy. We have always pursued prudence in our fiscal policy, accumulating budget surpluses in boom years. In this way, during a downturn, the Government budget will be in a position to pump prime where appropriate, but more importantly, to continue to invest in long-term economic infrastructure and capabilities.

19. The 1998 recession was no exception. We used the opportunity of lower sand price and lower construction cost to accelerate our land reclamation projects and to build up our industrial land bank. We also increased our budget allocation to education, IT, R&D and technopreneurship development. This will position Singapore well for the future, and the challenges and opportunities of the knowledge-based economy.

III. BEYOND THE CRISIS

(1) CHALLENGES AHEAD

1. Singapore has performed well in the last 30 years. The economy has grown by an average of 8.8% per annum since we gained independence in 1965. However, cost pressures are mounting as we begin to come up against our resource constraints.

2. The regional economic crisis has also altered the backdrop for Singapore's economic growth and cost competitiveness. With the regional economies undergoing extensive restructuring and reforms, the competitive environment will become tougher. The emergence of newly industrialized economies (NIEs) in Latin America, as well as the rise of mega economies like China, will also alter the competitive landscape. To stay ahead of the competition, we have to accelerate the restructuring of our economy and improve our competitiveness and capabilities.

3. At the same time, rapid technological improvements have contributed to changing production and consumption patterns. There is a fundamental shift towards knowledge-based industries with the rising importance of information, knowledge and skills.

(2) STRATEGIES FOR SINGAPORE

4. To meet these challenges, Singapore has adopted the following eight key economic strategies. Our vision is for Singapore to become an advanced and globally competitive knowledge economy within the next decade, with manufacturing and services as its twin engines of growth.

(i) Manufacturing and services as twin engines

5. The manufacturing sector has played a key role in Singapore's industrialization and economic development. Given its large contribution to GDP and employment, manufacturing will remain an integral component of the Singapore economy. We will position Singapore as a critical hub where MNCs and local enterprises use Singapore as their base to manufacture high value added products, and provide related services to companies here and in the region. We will maintain Singapore as a cost-effective base for manufacturing investments by ensuring that productivity growth is not outstripped by increases in business costs. We will help companies build up strong capabilities in all parts of the manufacturing value chain, from research and development (R&D) and design to production, marketing and sales (see Box 1).

Box 1: Industry 21

1. With the rapid advance of technology and globalization, knowledge is increasingly becoming a strategic asset for economic growth. There are abundant opportunities for businesses and workers who can tap the new ideas, innovations, and technologies that proliferate in a knowledge-based economy (KBE). The Economic Development Board's (EDB) Industry 21 (I21) plan is a blueprint to develop the knowledge-based industries which underpin the KBE, and reposition Singapore's manufacturing and service sectors over the next ten years.

I21 vision

2. I21's vision is for Singapore to become a vibrant and robust global hub of knowledge-driven industries, with focus on developing manufacturing and service industries with a strong emphasis on technology, innovation and capabilities. Singapore will also leverage on other hubs for ideas, talents, resources, capital and markets. World-class capabilities and global reach are essential if Singapore is to be

Box 1 (cont'd)

a global hub that is globally competitive. The goal is for Singapore to be a leading centre of competence in knowledge-driven activities and a choice location for company headquarters with product and capability development charters.

Quantitative targets of I21

3. Through I21, the following targets for the Singapore economy are to be met:

- (a) to develop knowledge-driven manufacturing and exportable services to constitute at least 40% of GDP and offering 20,000 exciting job opportunities every year;
- (b) manufacturing to contribute 25% of GDP;
- (c) at least two out of three jobs in the manufacturing sector to be for knowledge and skilled workforce; and
- (d) at least three out of four jobs in the exportable services sector to be for knowledge and skilled workforce.

Challenges and opportunities for all companies

4. New ideas, products, markets and industries present great opportunities for those with entrepreneurial spirit, capabilities and knowledge. Companies are encouraged to progress up the value chain of activities wherever the scope for innovation and application of new technologies is high. Such activities include R&D, product design and development, high-tech manufacturing, process engineering, value-added logistics, strategic marketing, and HQ activities.

5. EDB will continue to make it attractive to multi-national companies (MNCs) to anchor more of their key knowledge-intensive activities here, and to local companies to embrace more knowledge-intensive activities. High-tech start-ups are actively supported to nurture another generation of entrepreneurs.

Strategies to realize I21 vision

6. In order to realize the I21 vision, EDB would adopt the following strategies:

- (a) diversify among and within the key industry clusters. A balanced and robust mix of industries and markets will achieve sustainable growth and minimize vulnerability to fluctuations in specific sectors;
- (b) build up world-class capabilities and global capabilities. By upgrading capabilities, Singapore can compete effectively and remain attractive to investors;
- (c) promote innovation;
- (d) develop local talent and attract foreign talents; and
- (e) create a conducive business environment and world-class infrastructure necessary for knowledge-driven activities.

6. At the same time, we will develop Singapore into a premier services hub in Asia with a global orientation. This will widen our economic base and allow us to leverage on the complementarities between manufacturing and services activities. Besides strengthening our traditional hub services such as trading, financial services, logistics and tourism, we will promote new, high growth services like education, healthcare, info-communications and media. We will make available sufficient economic resources for our services sector at internationally competitive prices, and leverage on our strategic location and excellent business environment. We will also enhance our services capabilities, and help companies exploit information technology (IT) and telecommunications to overcome our physical and manpower limitations.

7. As part of our strategy to develop Singapore into a premier services hub, we will be progressively liberalising competition in many services sectors. We have begun sweeping reforms in the financial sector (see Box 2) and the telecommunications sector (see Box 3). We will be reviewing the competitive environment in other services sectors, including professional services, in the next few years.

Box 2: Singapore's financial sector reforms

1. In mid-1997, the Government set up a Financial Sector Review Group to tap private sector expertise and knowledge to assist in the task of examining strategies for the development of Singapore as a financial centre. It recommended that the Monetary Authority of Singapore (MAS) – the central bank and integrated supervisor of the financial services sector – shift the focus of its approach from that of extensive regulation to prudential supervision.

2. The former “one size fits all” approach has given way to new risk-based supervisory methods that distinguishes between the stronger and weaker players in the market. For the purpose of assessing the risks of individual institutions, their compliance with guidelines, internal controls and risk management would be emphasized. In addition, MAS is developing an internal rating system for financial institutions. This provides greater flexibility in MAS’ treatment of institutions with varying degrees in the quality of management – stronger ones will be able to have greater leeway to pursue their plans while the weaker ones will continue to be more stringently assessed. Transparency and market discipline now form an integral element of the supervisory process. With greater disclosure and hence market scrutiny, greater pressure would be placed on our financial institutions to operate more efficiently.

3. High supervisory standards will continue to be maintained to ensure that a sound supervisory framework exists to monitor and keep check of the liberalization process. Experience in the regional crisis had highlighted the dangers in pursuing liberalization without having the appropriate tools to monitor and keep check of excessive risks accumulated by financial institutions. The specific reforms in each of the different sectors of the financial industry are as follows:

Banking

4. In May 1999, a programme to liberalize the commercial banking sector and upgrade local banks was announced. In doing so, the government sought a graduated shift towards increasing competition and greater free play for market forces in the banking sector. This is aimed at increasing the competitive edge of our local banks, strengthening the banking sector to provide better quality services and enhancing Singapore’s position as a key financial sector. There are three key features in this programme.

5. First, qualifying foreign full banks that are strong, well-managed and committed to the long-term development of the Singapore market would be given increased access into the domestic retail market. This would take the form of expanded branch and ATM networks as well as the opportunity to forge shared ATM access among themselves. To allow foreign banks opportunities to expand their wholesale Singapore dollar (S\$) banking business, the number of restricted bank licences would be increased. In addition, the 90 odd foreign offshore banks would also see their S\$ lending level raised by over 60%. In October 1999, names of the successful foreign banks were announced.

6. Second, in a bid to improve the corporate governance of local banks, they would be required to appoint a Nominating Committee comprising a majority of independent directors within their boards. The propose of the committee is to ensure that the most competent individuals who can contribute to the bank and discharge their responsibilities in the interests of all shareholders, would be appointed to the board and senior management positions.

Box 2 (cont'd)

7. Third, the aggregate 40% foreign shareholding limit in locally incorporated banks was lifted. This removes the inefficient two-tier market for local bank shares – local and foreign tranches. The limit had prevented banks from having more foreign equity in its capital structure, and its removal paves the way for the striking of strategic alliances with foreign banks.

8. MAS has raised the minimum disclosure standards for banks and merchant banks, after taking into account the recommendations made by the private sector-led Committee on Banking Disclosure. The revised standards are in line with international accounting standards, and are applicable from financial year ending on or after 31 December 1998. MAS is continually reviewing the best practices of international banks in relation to disclosure, to enhance the disclosure standards further.

Debt Capital Market

9. The Asian debt market has been hard-hit by the regional turbulence. However the Asian currency crisis has also highlighted the need for the development of the debt market to reduce the reliance on inter-bank lending and to allow for greater market scrutiny and forces of competition to raise the operational efficiency and corporate governance of the various institutions in Asia. Given the above considerations, Singapore seeks to become a leading international debt market.

10. MAS has been issuing more Singapore Government Securities (SGS) to increase the free-float and to deepen the bond market. It recently issued ten-year SGS to extend the long end of the yield curve. Statutory boards and government-linked companies have also stepped up the issue of bonds to fund their long-term infrastructure and operational needs.

11. MAS has also revised its Singapore dollar internationalization policy, to allow supra-nationals and high-quality foreign corporations to tap the S\$ bond market, while maintaining safeguards to discourage speculation in the S\$. The first bond issue, by the International Finance Corporation in October 1998, was well received, showing that there is strong international interest in issuing S\$ bonds. There have been 19 issues by 16 foreign entities, raising a total of S\$2.875bn, since October 1998.

12. In addition, the central bank has also been working with other government agencies to develop the legal, regulatory, tax and accounting frameworks to support mortgage and asset-backed securities markets. The development of these markets will broaden the range of debt instruments available, and create spin-offs for other market players, like rating agencies and financial guarantee insurers.

Equity Capital Market

13. An integral element of the strategy to broaden and deepen Singapore's capital markets is the demutualization and merger of the country's cash and derivatives exchange. This will create a single integrated and privately-held stock company, that would separate ownership from participation in the exchange. The integrated exchange was officially launched on 1 December 1999. A public listing for the exchange is being studied. Following the demutualization of the exchange, new qualified brokers will gain enhanced access to the exchange, starting with institutional trades first. Fully open access to all trades (including retail trades) is expected by 1 January 2002. The liberalization of commissions would begin on 1 January 2000, with fully negotiable commissions from 1 January 2001. At the moment, the futures exchange is in the GLOBEX alliance, while negotiations on strategic tie-ups with major cash exchanges are underway.

Fund Management

14. In the promotion of the domestic fund management industry, a portion of government reserves that was previously managed by the central bank has been farmed out for private (both foreign and local) management. In addition, statutory boards and government-linked companies have also been encouraged to place out excess funds to external managers.

15. In addition, the rules governing the state pension fund have been revised to allow members to place a certain amount of their balance with professional fund managers. A vibrant fund management industry would attract a broader range of intermediaries and issuers, and act as catalyst for the further development of the equity and debt markets.

Insurance

16. Singapore has adopted a closed-policy in respect of new direct life insurers since the mid-1980s. The rationale has been to prevent unhealthy competition given the small size of the local market and the adequate number of participants – local and foreign – already operating here. This policy has, however, prevented new players, with new products, more efficient distribution channels and better marketing expertise, from entering the market, and insulated the domestic industry from international competitive trends.

17. For Singapore to become an important insurance hub in Asia, it is recognized that the domestic industry must keep abreast of developments in the international financial services market. For this purpose, the MAS is reviewing its approach to the insurance industry. It plans to liberalize the restrictions and allow new entrants. This review is in process and the details will be announced over the coming months.

18. In August 1999, the Government issued legislation to allow multi-line insurers and reinsurers to be involved in financial guarantee insurance business. By allowing foreign insurers the ability to set up branches in Singapore, it is hoped that this would attract players to base their regional operations within Singapore. This will contribute strongly to Singapore's development as a premier insurance centre and increase the credit standing of guaranteed debt issues, which will have a positive externality effect in developing Singapore's debt market.

8. Information technology (IT) will also play an increasingly important role as a business enabler. We will build on the strong foundation provided by the IT2000 Plan to position Singapore as a global IT hub in the Asia Pacific region. We will focus initially on developing Singapore into a communications and media hub, an e-commerce hub, and an IT innovation hub (see Box 3). We are also developing the necessary infrastructure (e.g. Singapore ONE) to facilitate business and working from home.

Box 3: Formation of the Info-Communications Development Authority of Singapore

1. The convergence of the telecommunications, IT and broadcasting industries has led to the emergence of the Information and Communications Technology (ICT) sector. The ICT sector is recognized as a key growth area as Singapore moves towards a knowledge-based global economy.

2. Previously, the promotion, development and regulation of the ICT sector spanned across various ministries and statutory boards. The development of the IT industry was spearheaded by the National Computer Board (NCB), which was under the Ministry of Trade and Industry (MTI). The Singapore Broadcasting Authority (SBA), under the Ministry of Information and The Arts (MITA), took charge of the broadcasting industry. The regulation of the telecommunications industry was handled by the Telecommunications Authority of Singapore (TAS), under the then Ministry of Communications (MINCOM).

3. While this arrangement worked well in the past because of the clear distinctions between industries, the convergence of these industries meant that the traditional regulatory boundaries would eventually break down. Equally importantly, the Government felt that promotion and development of the ICT sector could only take place effectively if there was an integrated perspective, one that included regulation. This would then enable better policy coordination, as well as foster integrated development and application of ICT in

Box 3 (cont'd)

Singapore. In June 1999, the Government transformed MINCOM into the Ministry of Communications and Information Technology (MCIT) and merged TAS and NCB into the Info-Communications Development Authority of Singapore (IDA Singapore).

Liberalization of Telecommunications

4. Since the early 1990s, the Singapore government has been working towards introducing market competition in all segments of the telecommunications sector. The process started with the corporatization of SingTel in 1992. In 1996, the Government advanced the expiry of SingTel's exclusive license for public basic telecommunications services (PBTS) and in 1998, licensed StarHub to start its commercial operations in April 2000. In addition, the Government has also liberalized the paging, Internet access service providers (IASP) and the mobile telecommunications sectors.

5. To achieve our aim of becoming a leading info-communications hub in the Asia-Pacific, our telecommunications market must be globally competitive, with many players offering innovative, high quality and cost effective services. As such, the Singapore government announced on 21 January 2000 that it would bring forward the introduction of full market competition in the telecommunications sector by two years, from 1 April 2002 to 1 April 2000. It has also lifted the direct and indirect foreign equity limits for all public telecommunications licences with immediate effect. IDA would generally not restrict the total number of licences that may be awarded, unless there are spectrum and other physical constraints. IDA would assess the merits of each application and award licences based on objective, transparent and non-discriminatory criteria.

6. Going forward, as the respective sectors mature and transit to a competitive market-driven environment, IDA will regulate with a lighter touch, with the aim of safeguarding fair competition and protecting consumer interests. The earlier introduction of full market competition will strengthen Singapore's competitiveness and help position as the choice location in the region for key info-communications industry.

ICT 21 Masterplan – the Roadmap for the Net Economy and Information Society

7. The implementation of telecommunication liberalization policies, IT 2000 and Singapore ONE have enabled Singapore to lay a solid foundation, and will facilitate our transition into a Net Economy and Information Society. MCIT, together with IDA., is in the midst of formulating the 'ICT21 Masterplan', to facilitate the development of ICT in Singapore over the next 10 years into a new era of an electronic world. The vision is to transform Singapore into a dynamic and vibrant global ICT Capital with a thriving and prosperous Net Economy by the year 2010.

8. To succeed as an ICT Capital, Singapore will have to be a leader in the creative exploitation of ICT in key aspects of economic and social activity. At the same time, we must develop into a premier ICT gateway to the region, as well as an active global node in the Global Information Infrastructure of the future. The ICT21 MasterPlan will map out strategies to attain the following three key objectives.

Develop the ICT sector as the key sector of growth in Singapore's economy

9. Singapore's IT industry grew more than four-fold from S\$2.7 billion in total revenue in 1991 to about S\$12 billion in 1998. At the same time, the phased liberalization of telecommunications services has led to keener competition and a faster pace of innovation. Building on the current capabilities of the IT and telecommunications industry, IDA will spearhead the nurturing of an ICT industry cluster out of the convergence of information, telecommunications, broadcasting, consumer electronics and multimedia technologies. We will encourage and assist global industry leaders and promising local enterprises to design, develop, and mass-produce new products and services for the regional and global markets. This will position Singapore as a leading innovator and exporter of ICT products and services in the global marketplace.

Use ICT as a common platform to boost the performance of Singapore's knowledge-based economy

10. The Government will strive to build new and better capabilities in every major economic sector, and recognizes that ICT has a critical role to play in these endeavours. In learning to harness the full potential of ICT in each and every major economic sector, we will help position Singapore as a strategic global hub for e-business, e-commerce and e-trade, e-learning and talent exchange, and e-services-on-demand.

Leverage on ICT to enhance the quality of life and standard of living of Singaporeans in the Information Society of the future.

11. Key initiatives such as Singapore ONE, e-Citizen and e-Government are aimed at delivering a whole range of online interactive services for public convenience. To improve the quality of supply with ICT, the government will need to increase user demands. This will be achieved by creating a more conducive environment to boost literacy in ICT, connectivity and accessibility among our people. Our aim is to help all Singaporeans to take full advantage of and benefit from a new and emerging lifestyle in the new e-world and information society of the future.

(ii) Strengthening the external wing

9. We will continue to capitalize on growing external markets as a complimentary source of growth for the Singapore economy. This will strengthen the resilience and competitiveness of our economy. Besides continuing to encourage companies to participate in the growth of the region, we will also help them to explore opportunities further afield by organizing more trade and investment missions to other emerging markets. At the same time, we will build up capabilities in critical elements of the value chain here in order to strengthen linkages back to the domestic economy.

10. We will continue to champion further trade liberalization and advocate a New Round of trade negotiations in the WTO, and continually promote and defend an open and rule-based multilateral trading system, which is vital to the economic well being of Singapore. We will also continue to work within regional fora such as ASEAN and APEC and on a bilateral basis to promote regional and global trade and investment liberalization. (See Box 4.)

Box 4: Trade 21

1. The Trade Development Board (TDB) has developed the Trade 21 blueprint which sets out the challenges, strategies and objectives for Singapore's trade development in the next five years. Under Trade 21, TDB plans to help Singapore expand its global market share by achieving the following targets by 2005:

- (a) Merchandise trade to grow by 4-6% annually to S\$500 billion;
- (b) Offshore trade to grow by 3-5% a year to S\$220 billion; and
- (c) Services exports to grow by 5% a year to S\$43 billion.

Key Thrusts

2. The major thrusts of TDB in the next five years will be to:
- (a) Internationalize Singapore enterprises;
 - (b) Make Singapore the global centre for trade hub services;

Box 4 (cont'd)

- (c) Secure global market access for Singapore; and
- (d) Develop a world class trade facilitation system.

Internationalizing Singapore Enterprises (ISE)

3. TDB will implement a coordinated programme – the ISE Programme – to internationalize Singapore enterprises. The aim is to expand the trade and overseas commercial presence of local enterprises, especially in emerging and non-traditional markets. There will be particular attention on helping the services sector to internationalize. The target is for trade of local enterprises to grow by 6-8% per annum to reach S\$175 billion by 2005. Over this period, the proportion of indigenous overseas direct investments to GNP is expected to reach 30%.

4. Under the ISE programme, TDB will provide total support to companies at the three stages of international market development:

- (a) Preparation (i.e. international market evaluation and assessment, packaging & design development);
- (b) Developing access (i.e. international contact development, establishment of commercial presence); and
- (c) Positioning (i.e. international brand development, image enhancement).

5. A key component of the ISE programme will be to help Singapore enterprises break out of their domestic and regional market focus by leveraging on the Internet. TDB will complement the Local Enterprise Computerization Programme (LECP) – currently administered by the Info-communications Development Authority of Singapore (IDA) – with a scheme to support local companies using the Internet and e-commerce to expand their international market access. Brand development and marketing will also be given greater support, as this is critical for tapping the global market both in the physical and virtual world. In addition, TDB will provide marketing support to start-up companies under its Overseas Marketing Offices programme.

Developing Global Trade Hub Services

6. Trade hub services, such as international trading, transport and logistics, and exhibitions, contributed more than 13% to Singapore's GDP in 1998. These sectors will face stronger competition in future. Rapid advances in IT and e-commerce will also threaten Singapore's intermediary role in international trade.

7. TDB's Global Trade Hub Services Programme will attract and anchor global players in international trading, transport and logistics and exhibition services in Singapore. Global players in new sectors such as leasing, auctioning and direct marketing will also be brought in. In this regard, the key target markets are the U.S., EU and Japan. A cluster approach targeting key drivers of the sector and supporting ancillary activities will be adopted. Such ancillary activities include risk financing, credit risk insurance, futures trading and market information services. Manpower development and talent attraction will be important given the knowledge-intensive nature of these sectors. The aim is to ensure that Singapore continues to be physical gateway for international trade in an increasingly e-commerce driven global economy.

8. The target is to raise the share of trade hub services promoted by TDB to 14% of GDP by 2005. TDB will help these sectors to grow by 4 to 6% per annum, and raise the value-added to S\$28 billion from about S\$20 billion at present.

Securing Global Market Access

9. Despite the failure of the WTO to launch a new round of trade negotiations, TDB will work with like-minded countries to push for the talks to be restarted. A new round will enable Singapore to seek:

(a) greater market access for the 12 priority services sectors identified by the Committee on Singapore's Competitiveness; (b) reduction/elimination of industrial tariffs; and (c) clear rules for trade facilitation. As the Internet and e-commerce is inherently borderless, devising a permanent set of rules that facilitates global e-commerce growth and addresses governments' regulatory concerns will be a high priority.

10. Concurrently, Singapore will pursue market access with key trading partners through regional and bilateral free trade agreements. This approach will complement our efforts in the WTO.

World Class Trade Facilitation and Documentation

11. The development of TradeNet has provided Singapore with a major competitive advantage. TradeNet Plus will be completed by 2001. It will integrate the entire trading cycle in Singapore, using the latest information and communications technology. There are at present several global initiatives to minimize or eliminate complex paper documentation in the international trading process (e.g. Bolero, TradeCard, Identrus, TEDI, etc.). These initiatives provide businesses with the international connectivity to allow seamless information flow as well as reduce data re-keying and entry errors. TDB will encourage local service providers to link up with these global initiatives as international gateways. In addition, TDB will collaborate with private sector service providers to develop an Internet-based global network for international trade by leveraging on the TradeNet Plus infrastructure. Hubbing such a network in Singapore would further strengthen Singapore's position as a global trade and logistics hub.

(iii) Building world-class companies

11. While foreign MNCs will continue to be a key driver of economic growth in Singapore, we also need a stable of our own world-class companies to add depth and resilience to our economy.

12. As a start, we will leverage on the existing government-linked companies (GLCs), as they have the potential to grow into world-class companies given their size and resources. The GLCs will focus on a few business areas with the aim of developing world-class capabilities to compete regionally and globally. We will also help the other local enterprises build up core competencies in manpower, research and development, capital and financing, and market information.

(iv) Strengthening our base of small and medium local enterprises

13. We will help the small and medium local enterprises (LEs) build up their capabilities to be more resilient in the face of slower growth and keener competition. Programmes will be formulated to encourage LEs to pool their resources to achieve synergy and economies of scale. We will also help them to raise their technological capability, efficiency and service quality.

14. We will encourage LEs to adopt best practices, develop their own brands and products through innovation and overseas marketing, and to re-engineer their processes. Special attention will be paid to the non-tradable domestic sectors to help them raise their productivity. (See Box 5.)

Box 5: Small and Medium Enterprises 21

1. The 1988 SME Masterplan outlined a coordinated national effort to develop SMEs. The thrust then was to build and strengthen SMEs' capabilities so as to increase their efficiency and grow them into promising local enterprises. A review of the masterplan is necessary, however, in the light of the emerging trends and Singapore's drive towards a knowledge-based economy (KBE). SMEs need to stay relevant and continue to contribute in such a rapidly changing economic environment.

2. The SME 21 is a ten-year strategic plan which will address the challenges faced by SMEs. It recommends strategies to position them for the KBE.

Box 5 (cont'd)

SME 21 - Vision and Goals

3. The vision of SME 21 is to create vibrant and resilient SMEs that will enhance Singapore's competitiveness and economic growth in the KBE. There are three goals supporting this overall vision:

- (a) Grooming innovative high growth SMEs;
- (b) Developing productive SME sectors; and
- (c) Creating a knowledge-based pro-enterprise environment.

4. To achieve the SME 21 vision, a three-pronged approach comprising enterprise-level strategies, sector-level strategies and generic strategies will be adopted. This holistic approach is taken to address the diverse needs of the SMEs in different sectors and at different stages of growth.

Enterprise-level Strategies

5. These strategies are applicable for a handful of enterprises that are already leaders in their fields and have the potential to grow further through focused assistance. SME 21 aims to transform such SMEs into strategic and creative businesses with strong cultures of learning. Companies will be encouraged to

- (a) Foster organizational excellence by adopting best practices;
- (b) Create new business models to enable the company to respond flexibly to market changes;
- (c) Harness technology and knowledge for growth; and
- (d) Embrace a culture of lifelong learning at the workplace.

6. Some key initiatives include:

- (a) *SME Mentoring Programme*. This allows SMEs to learn from the experiences of established company directors. A network of advisors will act as an external "board of directors" for the SMEs to advise the CEO on strategic issues faced by the company.
- (b) *CEO Learning Circles*. These provide CEOs of SMEs a platform to network, share and exchange experiences. A consultant will facilitate the discussions so that the sessions are conducted in a systematic and structured manner.
- (c) *Technology Network (TechNet) Programme*. This will facilitate connections between innovative SMEs, aspiring technopreneurs, researchers and venture capitalists. SMEs will be able to acquire new technologies more rapidly.

Sector-level Strategies

7. Some issues and problems faced by SMEs cannot be adequately tackled at the enterprise level. These problems could be peculiar to a sector or may involve many players in the value chain. To achieve a quantum improvement in productivity, some sector-level strategies have to be adopted.

8. The first strategy is to facilitate collaborative partnerships and alliances for greater synergy. Economic groupings such as business fusion groups and franchising will be encouraged. These are ways in which SMEs can partner with one another and outsource key services so as to enjoy greater economies of scale. This will lead to gains in productivity and efficiency.

9. The other strategy includes the upgrading of the domestic services sector. Particular attention will be paid to the revitalization of the retail sector and upgrading of the construction sector.

10. In the retail sector, SME owners will be encouraged to make use of business groupings and other tools and technologies like supply chain management to increase their operational efficiency. PSB will also actively promote e-retailing as a business model for them. A comprehensive range of measures will be put in place, including the introduction of innovative retail concepts.

11. To upgrade the construction sector, PSB will promote training in core skills for the construction industry as well as encourage wider adoption of industry standards. With greater standardization and alignment, productivity for construction and related work will increase.

Broad-based Strategies

12. These strategies apply to all SMEs and are aimed at improving the capabilities of SMEs and fostering the spirit of innovation and entrepreneurship. Programmes are targeted at changing the mindset of SMEs, improving SME financing, facilitating SMEs' access to international markets and increasing the pool of talent available to SMEs.

13. A key initiative here is the development of Singapore as an SME hub to create a vibrant environment for SMEs to flourish. Foreign SMEs will be attracted to Singapore to set up operations and/or to link up with local SMEs in collaborative partnerships. In addition, they will be encouraged to use Singapore as a springboard to reach out to the region. Local SMEs will benefit from this cross-fertilization of best practices and expertise and will be encouraged to improve their capabilities and seek out emerging opportunities.

(v) Human and intellectual capital as a key competitive edge

15. With increasing globalization and the shift towards a knowledge-based economy, human and intellectual capital has become a key competitive factor of production. We will develop a workforce that is cost-competitive, motivated and highly productive, with world-class capabilities in business management, technology, innovation, production and services, and international market development.

16. A two-pronged approach will be adopted. The first prong is to nurture our domestic manpower to their maximum potential, starting at school and continuing throughout working life. We are putting in place various incentives for continuing education and training of the workforce. One such initiative is the Skills Redevelopment Programme, which has been very successful in helping to retrain workers affected by the regional crisis. We will also increase our indigenous labour force participation rates by encouraging economically inactive persons to re-enter the workforce.

17. The second prong involves enhancing the attractiveness of Singapore to foreign talent, in order to overcome our constraints of a limited domestic talent pool and low population growth. We will provide affordable accommodation, and exercise greater flexibility in the employment of foreign talent. We will also review foreign worker policies to deploy these workers to higher value adding economic activities, and promote skills upgrading. We have repositioned the Ministry of Labour into the Ministry of Manpower to integrate the efforts of the various manpower agencies under the umbrella of a national manpower agency. (See Box 6.)

Box 6: Manpower 21

1. As part of Singapore's overall strategy to succeed in the knowledge economy, the Ministry of Manpower (MOM) was established in April 1998 by expanding and transforming the previous Ministry of Labour. The purpose of the Ministry is to put in place a strategic architecture to develop a globally competitive workforce for the economy. This includes the total value-chain of manpower planning, manpower development, international talent attraction and management, workplace environment and industry promotion. Through balancing the demand and supply of manpower, and with a strategy of continuous workforce upgrading for lifelong employability, the Ministry will spearhead Singapore's thrust into the "knowledge-based economy" from the manpower point of view.

2. Sustainable long-term economic prosperity demands the transition from comparable advantage (low-cost labour) to competitive advantage (highly skilled workforce) to achieve product/service

Box 6 (cont'd)

differentiation. This requires a new paradigm for the development of manpower. In the knowledge economy, people are the creators and implementers of knowledge to produce new goods and services. Such value creation by our talents (as opposed to labour inputs) is strengthened by lifelong learning (as opposed to training). The workforce must concentrate on building capabilities (as opposed to skills) in order to achieve lifelong employability (as opposed to lifelong employment). The new manpower paradigm is about people as a generator of wealth, instead of a factor of production.

National Manpower Blueprint

3. Manpower 21 is a strategic blueprint to develop our workforce as a key competitive advantage – to support as well as to create economic growth in the knowledge economy for Singapore. The vision is for Singapore to evolve into a “Talent Capital” – a place where industries command the necessary skills and expertise for their activities; where people use their talents to create new value; where entrepreneurs are able to thrive; and where people can develop their full potential through continuous learning and participation in meaningful jobs. It is a city of ideas, innovation, knowledge and exchange; a place with a strong culture of continuous learning for lifelong employability and a country where government, employers, unions and community organizations work in partnership to drive economic development.

4. The Manpower 21 blueprint articulates a comprehensive and integrated approach to realize this vision, through addressing the entire value chain of activities. To ensure that efforts on these fronts are synchronized, six strategies have been identified to achieve the vision:

- (a) *Integrated Manpower Planning* to ensure better fit between manpower demand and supply.
- (b) *Lifelong Learning for Lifelong Employability* by establishing an in-employment system called the School of Lifelong Learning.
- (c) *Augmenting Our Talent Pool* to enhance Singapore’s competitiveness and expand the economic pie
- (d) *Transforming the Work Environment* to enhance productivity and optimize resource use
- (e) *Developing a Vibrant Manpower Industry* to enhance manpower development, deployment and management; and
- (f) *Redefining Partnerships* to realize the vision of a Talent Capital in collaboration with stakeholders at the national, industry and workforce levels.

Integrated Manpower Planning

5. Manpower planning is critical in shaping the strategies and goals of all other manpower efforts and ensuring a better fit between manpower demand and supply. Key challenges in manpower planning include anticipating future manpower needs in a world where change is the only constant, sustaining employability and striking a balance between local and foreign workforce participation to ensure economic and social cohesion.

6. To manage these challenges, an enhanced Manpower Information System will be developed to provide relevant and timely manpower information to policy makers, employers, training providers and individuals. This system will comprise regular updates on employment trends and forecasts, training data, and other useful information such as a Job Profile Index to assess the economic value of jobs, including knowledge content and wage levels. In addition, a National Manpower Council will also be established to set strategic directions and oversee Singapore’s national manpower planning, development and augmentation strategies and targets.

Lifelong Learning for Lifelong Employability

7. There is no such thing as a lifetime job. This notion belongs to the past. The worker of today needs to realize that times are changing, and that to remain in the workforce, it is critical to continually learn new

skills and upgrade. Knowledge is the key to lifelong employability. The benefits of lifelong learning are tremendous for employers and workers alike. For employers, training increases workers' productivity and competitiveness, and hones their ability to respond quickly to changes. Workers gain by acquiring new skills, leading to better job prospects, security and salaries.

8. To address this issue, a National Skills Recognition System (NSRS) will be established to develop definitive workplace skills standards and accord recognition to training that meet these standards. To help individuals overcome time constraints in learning, the system will be designed to encourage bite-size modular learning that can be offered part-time or even on-the-job. It is also planned that a National Skills Council comprising industry players, learning providers, unions and the government will be formed to direct the development of the NSRS.

9. The Manpower 21 blueprint also looks at providing employer- and individual-based incentives to stimulate lifelong learning amongst Singaporeans. To encourage more employer-based training, the government has revised the ceiling of the Skills Development Fund (SDF) levy from \$1000 to \$1500, which will be implemented from 1 July 2000. This is in view that although SDF disbursements have been increasing correspondingly with the rising levels of employer-based training, SDF levy collections have been on the decline because of increasing wages.

10. To encourage Singaporeans to assume personal responsibility for lifelong learning, MOM will work with the Ministry of Finance to broaden the existing criteria for courses eligible for income tax relief. These courses may include those not directly related to an individual's existing business, profession or employment, but which serve to enhance his/her employability.

11. The changing workplace has also brought with it a new set of information challenges. The lack of a single source of information on labour market trends, skills demands, employment and training have created time and accessibility obstacles. To overcome this barrier, the Government, in partnership with the Community Development Councils (CDCs), will build a network of one-stop career centres to provide workers with employment-related information.

Augmenting Our Talent Pool

12. The competition for international talent is very sharp. Talent who work in and for Singapore will enlarge the country's economic pie and help transform Singapore into a knowledge-based economy by facilitating the cross-fertilization of expertise and ideas. To further our bid to attract international talent and entice overseas Singaporeans back home, there are plans to expand and intensify the operations and infrastructure of Contact Singapore, a resource centre giving information and advice on education and career opportunities in Singapore. Currently, Contact Singapore has centres in Boston, San Francisco, Toronto, Washington D.C., London, Perth, Sydney and Hong Kong.

13. MOM will also review Singapore's foreign worker policy guidelines to re-allocate foreign workers from low to high value-added sectors. The re-allocation of the foreign workers will result in productivity gains without taxing the fabric of the society, and contribute to raising the skills profile of Singapore's workforce.

Transforming the Work Environment

14. A review of work environments and practices is essential to raise productivity, improve employee participation and more importantly, motivate workers to enjoy what they are doing. As part of efforts to improve the work environment, MOM is looking at job re-design to utilize resources efficiently. At present, a large number of low-skilled foreign workers are employed in industries such as construction and this perpetuates a cycle of low productivity, poor work conditions and remuneration, and lack of interest by local workers. One way of breaking this cycle is not to increase the number of foreign workers, but to promote and facilitate job redesign such as making workplaces more friendly for older workers, the disabled and housewives.

15. Although Singapore's workforce has been consistently ranked first by BERI, Singapore does not fare well in workers' attitude and technical skills. Good HR practices, including comprehensive staff development plans, will help to upgrade the quality of workers and increase motivation. Good HR practices are also integral to attracting and retaining talents, both local and international. In this regard, it is envisaged that a national recognition award will be created to recognize employers with exemplary HR development and management practices.

Developing a Vibrant Manpower Industry

16. Singapore recognizes the need to leverage the power of technology and the growing demand for skills in the services sector. In line with current trends, MOM will work with the Economic Development Board to encourage world-class institutions that carry out R&D in workforce training/organizational development and high value-added global manpower companies to set up operations in Singapore. Examples of such institutions include U.S.-based National Training Laboratories and the Centre for Creative Learning.

17. Other recommendations to develop a vibrant manpower industry include the formation of a self-regulating manpower industry association; developing a manpower industry upgrading programme to encourage leading players to share information and methodology with smaller companies; and developing talent for the industry through certified courses.

Redefining Partnerships

18. The harmonious tripartite partnership among the government, employers and trade unions has been an important cornerstone for Singapore's economic growth and social progress. It has resulted in a harmonious industrial climate that is conducive and attractive to investments.

19. One of the challenges facing the labour movement is the impact of the changing educational profile of workers in the unions. With new workforce entrants being better educated, the union membership base has been shrinking. To address this issue, MOM, the National Trades Union Congress (NTUC) and the Singapore National Employers Federation (SNEF), will organize an annual National Manpower Summit to tap the collective wisdom of the tripartite partners in reviewing and charting Singapore's manpower strategies. A Labour Management Partnership Programme to support joint labour-management initiatives will also be introduced.

18. Singapore needs a thriving group of local entrepreneurs to help drive innovation-led growth and capitalize on new business opportunities in the knowledge-based economy. To encourage entrepreneurship as well as create a more conducive environment to attract, motivate and retain talented staff, we have facilitated the use of employee stock option programmes by giving more favourable tax treatment and relaxing some of the restrictions on them.

(vi) Leveraging on science, technology and innovation

19. As technology becomes increasingly important, Singapore needs to develop indigenous science and technology capabilities to complement our MNC-led technological development. Given our limited resources, our R&D efforts will be focused on those areas where Singapore has already built up reasonable world standing and which are eventually relevant to the industry. We will ensure a steady flow of R&D results to the industry, and enhance our links with other global technological centres. We will nurture and build a critical mass of high-tech enterprises through the Technopreneurship 21 programme, and catalyse the development of a vibrant venture capital industry to seed the development of new start-ups (see Box 7).

Box 7: Technopreneurship 21

1. The Technopreneurship 21 (T21) initiative strives to build a conducive environment in Singapore to support the creation of knowledge-based, high-growth companies that target the global markets.

T21 Thrusts

2. The T21 initiative consists of the following four thrusts:

- (a) *Pro-Enterprise Environment.* Reviewing of rules and regulations to remove obstacles and build up the environment & infrastructure to support the creation and growth of new businesses.
- (b) *Financing.* Enhancing venture investment and financing in Singapore. The US\$1 billion Technopreneurship Investment Fund (TIF), which forms the focus of this thrust, serves to draw more venture capital activities and talents into Singapore.
- (c) *Facilities.* Creating safe, comfortable and conducive facilities that provide an intellectually stimulating and creative environment for talent to congregate. The proposed development of a Science Hub at Buona Vista will be an icon of this thrust.
- (d) *Education.* Infusing within the Singapore population a culture of innovation and enterprise; a readiness to take calculated risks; a willingness to accept failure as part of the learning and growing process.

Pro-Enterprise Environment

3. The first set of changes to the rules & regulations to develop a pro-enterprise environment to support technopreneurial development was announced in July 1999. The areas covered by these changes include improving the rewards of engaging in technopreneurial activities, increasing the tolerance of failures, encouraging better risk acceptance and attracting technopreneurial talents. Some examples of these changes are as follows:

- (a) *Reward - Equity Ownership and Risk Sharing*

Employee Stock Option (ESOP) Scheme. The scheme was introduced to allow the tax payment for taxable gains arising from qualifying ESOPs to be deferred for up to five years.

Technopreneur Investment Incentive Scheme. The scheme aims to promote investment in technopreneurial start-ups. Qualifying investors, whether companies or individuals, will be allowed tax deductions on losses incurred from selling qualifying shares in an approved technopreneur start-up; or from the liquidation of an approved technopreneurial start-up.

- (b) *Tolerance of Failure and Ease of Re-Starting*

Revision of bankruptcy laws. The changes aim to promote responsible risk-taking by fostering a climate where business failures need not result in bankruptcies and where those who become bankrupt through taking normal business risks are given appropriate differential treatment from those who become so through misdeed or mismanagement. Among the main changes was the raising of the debt threshold for filing of bankruptcy from S\$2,000 to S\$10,000.

- (c) *Risk Acceptance and Management*

Technopreneur Home Office (THO) Scheme. The aims of the scheme are to lower the start-up cost and facilitate the creation of high-tech and knowledge intensive new businesses by allowing technopreneurs to use their residential premises as home offices.

Change in tendering procedures for Government Projects. The Government tendering procedures were changed to allow companies to tender for Government's IT and high-tech projects below S\$5m in spite of their not having conventional track records. This is in recognition that the knowledge/know how of individuals is as important as company *per se*, and start-up firms may be able to provide more innovative solutions.

Financing

4. The strategic uses of the US\$1 billion Technopreneurship Investment Fund (TIF) is an important part of Singapore's technopreneurship development drive. It signals our commitment to technopreneurship development and more importantly serves as a catalyst to attract technopreneurial talent and venture capital money into Singapore.

5. The TIF will be used to co-invest with private sector in specific programmes to provide seed money for technopreneurial start-ups, draw in venture capital money into Singapore and develop networks with other venture capital firms around the world. The TIF fund managers will work with and through private sector venture capital firms to stimulate the venture capital industry and technopreneurship sector in Singapore.

Facilities

6. The Government has earmarked an area - the Buona Vista area – as a focal point for the development of the Science Hub. The Science Hub is planned with the key objectives of making the Buona Vista a premier R&D area and to make its living and working conditions as pleasant, comfortable and convenient as possible to attract RSEs to live and work in Singapore. Known as the Buona VISTA (Science Hub), it would be an integrated development encompassing industrial, R&D, commercial (shops, banks, venture capitalists, law firms, etc.), social (restaurants, pubs, events centre, etc.), recreational (sports facilities, parks, etc.) and residential uses.

7. Buona VISTA is positioned as the place for technology start-ups; a hub of technology ventures and entrepreneurial activities. A potpourri of research centres and institutes, technology-focused companies and services supporting and contributing to the technopreneurial culture will support this area.

Education

8. One of the key pillars of the Education thrust is to develop the next generation of graduates who are able to contribute effectively to the growth of a knowledge-based economy. The National University of Singapore and the Nanyang Technological University have announced a new university admission system from year 2003 that will include reasoning test, project work and extra-curricular activities to supplement the current reliance on examination results.

(vii) Optimizing resource management

20. To optimize resource management, our strategy will be to maximize effective supply as well as minimize effective demand. We will balance between the need for efficient allocation among competing uses, and the need to price them competitively in order to attract quality investments.

21. We will ensure that there is sufficient land for industrial development, by accelerating reclamation and encouraging more optimal land usage. We will provide world-class supporting infrastructure and price our industrial land competitively. We will work towards a cost-competitive and secured supply of water, and better manage the supply, demand, conservation and recycling of water. We will also liberalize the power sector, and ensure that the quality and cost of power supply are competitive (see Box 8).

Box 8: Liberalization of the electricity sector

1. The electricity industry in Singapore is gradually being liberalized. Competition is being introduced in stages, which began with the corporatization of the Public Utilities Board's (PUB) electricity undertaking in 1995. As a result, there are currently three generation companies (PowerSenoko, PowerSeraya and Tuas Power); one grid company, PowerGrid; and one electricity supply company (Power Supply). A fourth generation company (SembCorp Cogen) will start operation in 2001.

2. As two of the generation companies are wholly-owned subsidiaries of Singapore Power, the Government decided in March 1999 to unbundle Singapore Power through its divestment of PowerSenoko and PowerSeraya in 2001. Separating ownership between the generation and grid companies will ensure a more level playing field for new entrants in the contestable sector, and further enhance competition.

The Singapore Electricity Pool

3. The Singapore Electricity Pool (SEP) started operation in 1998 to enable competition among generation companies. The SEP allows trading of electricity between generation and supply companies in a competitive environment. The SEP is under the governance of the Singapore Electricity Pool Executive Committee (SEPEC), which comprises the representation of the generation and supply companies, the transmission and distribution company, and PUB.

4. In addition, overseas power producers operating their power plants outside Singapore may supply electricity through the SEP. To ensure system security, the total supply to Singapore from all overseas power producers is capped at 600 MW in the first instance. There is no restriction to foreign participation in providing professional services, contracting services and the supply of equipment for the electricity industry.

Pricing Mechanism

5. A price cap mechanism is applied to regulate the revenue of PowerGrid, a monopoly, which operates the transmission and distribution of electricity. The price cap is set based on the CPI-X formula, i.e. prices are allowed to increase with increases in the consumer price index less efficiency gains. The factors to be taken into consideration when measuring efficiency gains include, inter alia, labour productivity and technology improvement. Power Supply's margin in the franchised retail market is also regulated. While prices in the non-franchised market need not be regulated, the revenues of the generation companies are currently still regulated during the transitional period towards effective competition.

6. Further measures to introduce full competition will be undertaken in the next two years. Besides unbundling the two main generation companies, the Government will also be introducing greater competition in the retail sector and amending the rules and regulations to make them more pro-competition. These measures will enable consumers to reap the full benefits of de-regulation and reform in this sector.

(viii) Government as business facilitator

22. As Singapore's economic structure develops and matures, globalization and the attendant intense competition will require us to continually innovate to retain an efficient and pro-business environment. The regional crisis has also highlighted the importance of government's role in economic management.

23. The government will continue to regularly consult with the private sector to study the impact of regulations on competitiveness and business costs before implementation. We will review our regulations periodically and streamline them where possible. We will benchmark ourselves against best practices to avoid excessively stringent regulations. We will move towards greater transparency

in the approval processes, and empower mid-level and frontline officers to exercise greater flexibility in the administration of rules and regulations.

(3) CONCLUSION

24. In Singapore's short history of 34 years, we have had only two recessions – in 1985 and 1998. Being small and open, the Singapore economy, more than most other countries, was especially vulnerable. Large external shocks like the recent crisis have significant repercussions on our growth.

25. This will not be the last economic crisis for Singapore. There will be others. As before, we may not be able to fully anticipate them. More importantly than being able to devise quick-fix solutions, we recognize that we have to build up strong institutions that can withstand the challenges of globalization, especially in the financial and corporate sectors. We must have sound policies and develop capabilities that will allow us to exploit the opportunities of the future. These long-term investments in institutions and capabilities are what we believe will prepare us for more competitive times.
