

The road thus far

Chapter 1 >>>

> Transformation of the Singapore Economy

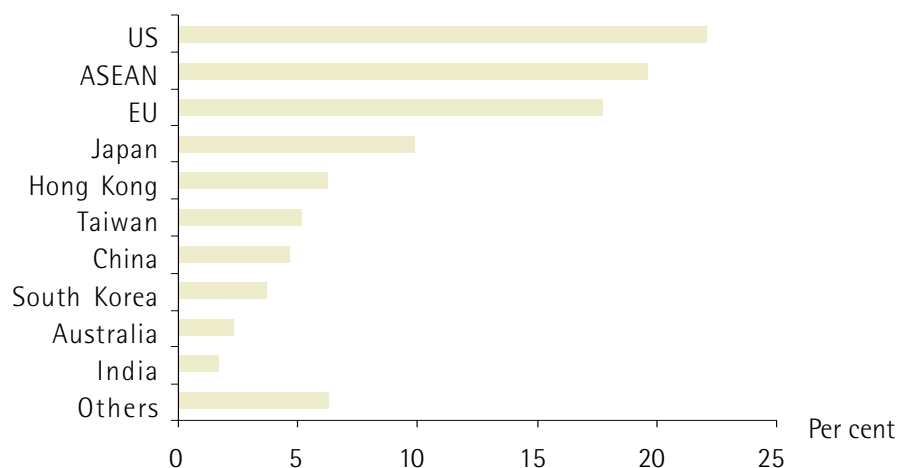
The Singapore economy has grown rapidly in the last two decades. Economic growth averaged 7.3 per cent per annum between the major recessions in 1985 and 2001. GDP in nominal terms has increased to S\$154 billion in 2001. Per capita income has more than doubled, reaching S\$37,200 in 2001. This has placed Singapore among the ranks of OECD countries like France and Germany, and ahead of others like Italy and Australia¹.

¹ Singapore's per capita income in US\$ terms was US\$20,700 in 2001, compared to France (US\$21,500), Germany (US\$22,500), Italy (US\$18,900) and Australia (US\$18,500).

A More Globally Connected Economy

The economy has also undergone significant transformation. Today, it is more globally connected than it ever was before. Exports have grown significantly. The nominal value of our non-oil domestic exports grew by 12 per cent per annum to close to S\$100 billion per year today with markets spanning all major economies [see [Chart 1.1](#)]. More than 140,000 vessels called on our ports in 2001 compared to 37,000 in 1985, and container throughput has grown from 1.7 million to 15.6 million TEUs. Air cargo rose five-fold from 0.3 million to 1.5 million tonnes.

Chart 1.1: Singapore's Top Ten Destinations for Non-oil Domestic Exports

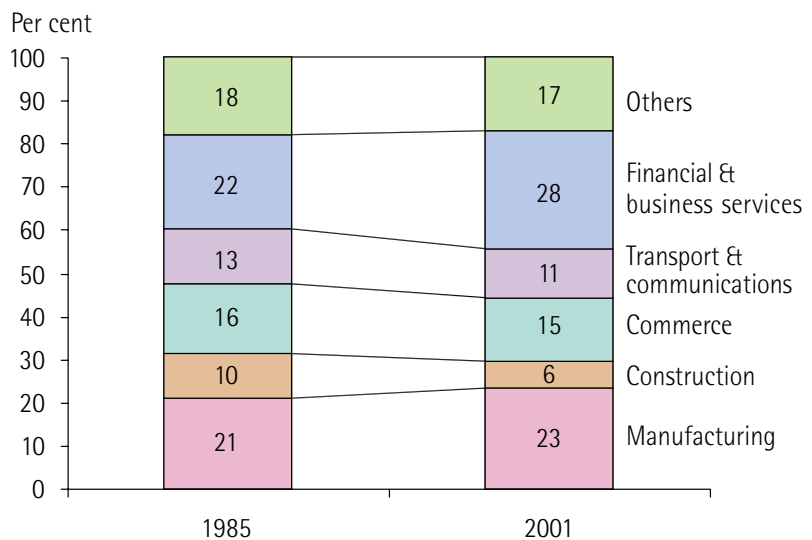


15 years of growth and transformation

An Upgraded Manufacturing Sector

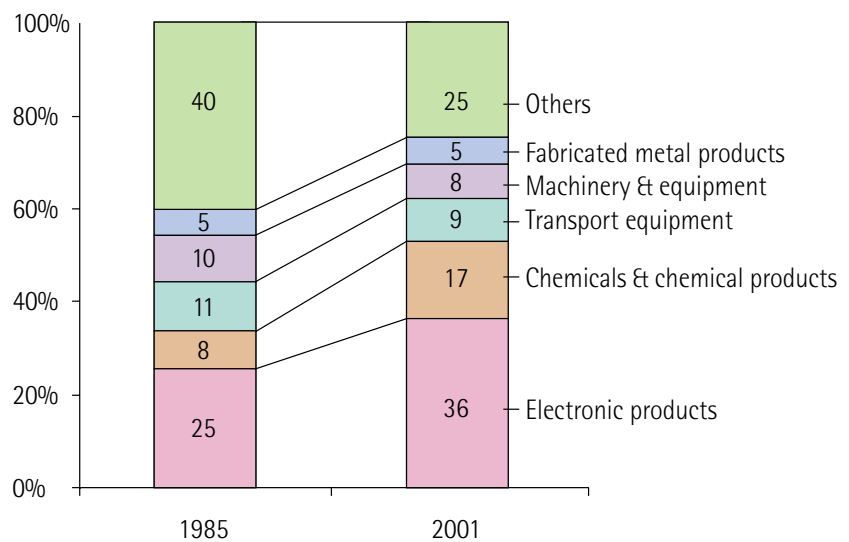
The broad structure of the economy is largely unchanged, with manufacturing remaining as a key sector [see [Chart 1.2](#)].

Chart 1.2: Structure of Singapore Economy



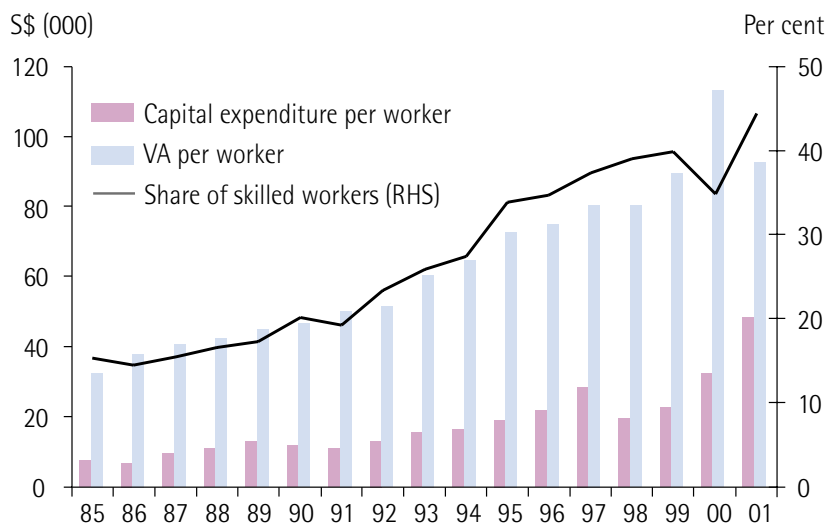
Within manufacturing, however, we moved up the value chain. Electronics and chemicals have increased in importance, accounting for 53 per cent of total manufacturing value-added (VA), up from 34 per cent in 1985 [see [Chart 1.3](#)]. The chemicals cluster has also grown. Jurong Island, conceived during the mid-1980s and developed in the early 1990s, has helped us realise our vision of a world-class chemical hub with an optimal combination of petroleum, petrochemicals and supporting industries. Today, chemicals-related products constitute more than 10 per cent of our non-oil domestic exports.

Chart 1.3: Structure of Manufacturing Sector



The sector has upgraded, as lower value-added, commoditised products like textiles and consumer electronics moved to other lower-cost countries. Driven by foreign as well as domestic investment, Singapore's manufacturing sector is now more capital- and skill-intensive [see [Chart 1.4](#)]. R&D activities have grown, not only in the traditional manufacturing-related areas like electronics and engineering, but also in new areas like biomedical sciences. Productivity growth has been strong, averaging 5.3 per cent per annum from 1985–2001, outstripping the other major sectors.

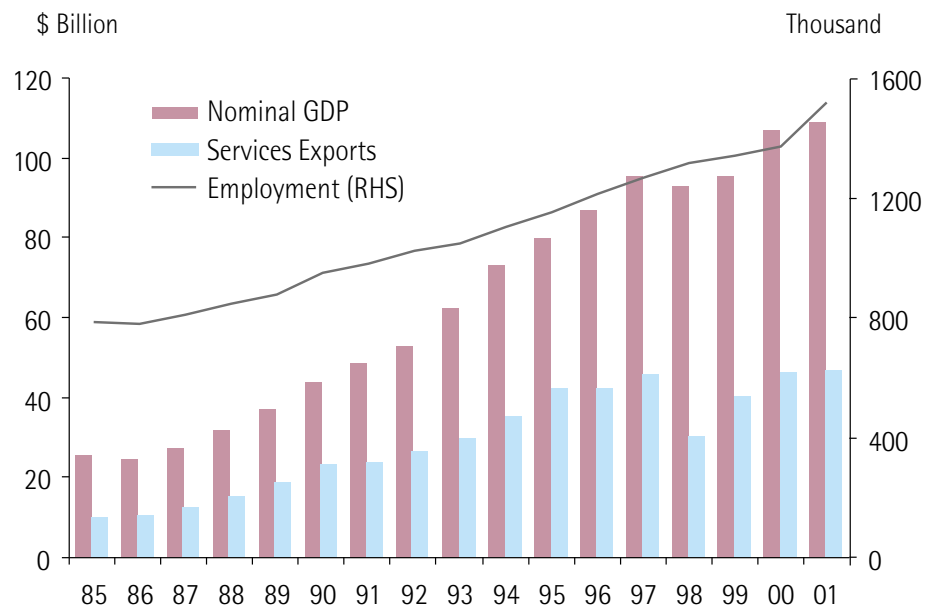
Chart 1.4: Manufacturing Has Moved Up the Value Chain



Changed Structure of the Services Sector

The services sector has undergone tremendous changes in the past two decades. Singapore has strengthened its position as the services hub for the region. The major services industries have enjoyed strong growth and created many employment opportunities for Singaporeans. Our services exports have grown by 9.9 per cent per annum between 1985 and 2001 to close to S\$50 billion, resulting in a healthy net export balance of more than S\$10 billion today [see [Chart 1.5](#)].

Chart 1.5: Growth of Services GDP, Exports and Employment



Singapore has become a major tourist destination. Today, we receive more than 7 million visitors per year compared to only 3 million in 1985 – the fastest growth coming from Asian markets, averaging 6.3 per cent per annum. This has boosted the VA of hotels and restaurants from S\$1.4 billion in 1985 to about S\$4 billion today. There have also been considerable spin-offs to other services industries such as retail, transport and communications.

More significantly, the face of the services sector has changed, as we liberalised areas like financial services, telecommunications and media. This has sharpened competition, strengthened domestic firms and benefited Singaporean consumers.

In financial services, for example, a new industry landscape has emerged, since progressive liberalisation began in 1998. Foreign banks have greater access to domestic retail banking, and competition has led to the consolidation among the local banks. Fund management activities and the capital markets have developed and grown. A plethora of financial products are now available to Singaporeans.

In the telecommunications industry, mobile phones and internet subscriptions have increased dramatically, and prices have come down rapidly since the industry was liberalised in a big bang in 2000. Consumers and businesses enjoy new services and lower costs. Singapore is building itself up as a telecommunications node.

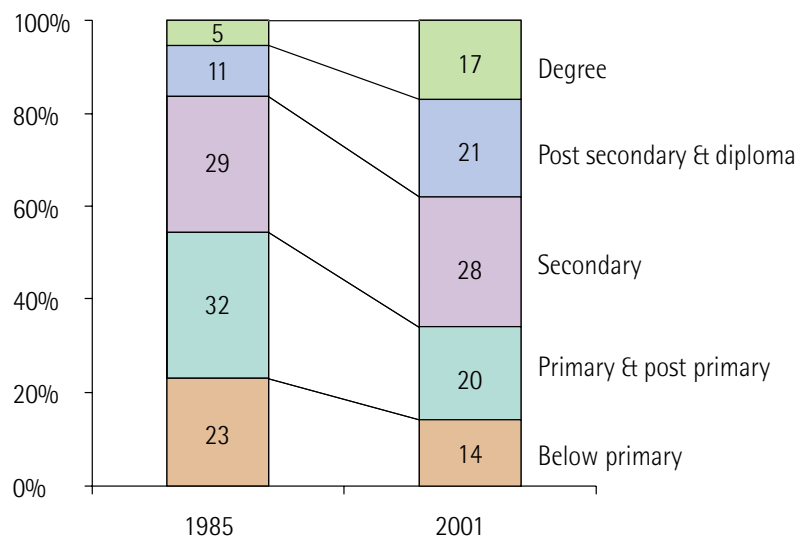
A Better Educated Workforce

The educational profile of our population has improved dramatically. From one university in 1985, Singapore now has three universities. There are more polytechnics and institutions of higher learning. Our institutes of technical education have also been upgraded and transformed. As a result, the output and quality of the educational institutions have gone up. In 1985, we produced 8,000 polytechnic and university graduates. By 2001, this rose to 25,800, not including Singaporeans who were educated overseas.

Our workforce has therefore become better educated, as younger cohorts enter the labour market. The average years of schooling has increased from 5.7 years in 1985 to 8.4 years in 2001, with the proportion of graduates in our total workforce more than tripling from 5.2 per cent to 17 per cent. 66 per cent of the workers have secondary and above education in 2001, compared with 46 per cent in 1985 [see [Chart 1.6](#)]. The improvement in educational attainment

has raised the skill profile of the workforce. The share of Professionals, Managers, Businessmen and Executives (PMBEs) has increased from 22 per cent to 42 per cent of total workforce over the same period.

Chart 1.6: Higher Proportion of Skilled Labour



> Improvements in Social Conditions

In tandem with the growth and transformation of Singapore's economy, our society has upgraded itself dramatically.

Singapore's resident population has increased from 2.5 million in 1985 to 3.3 million in 2001, without compromising the quality of life on this small island. Economic growth has not been achieved at the price of social inequity. The vast majority of Singaporeans have enjoyed the fruits of economic progress, as reflected in better social conditions.

Home ownership reached 94 per cent in 2001, unmatched by any other country in the world. The quality of housing has also improved. In 1985, 41,000 households lived in five-room flats. By 2001, this figure had risen to 194,000. There were close to 200,000 private residential properties in 2001 compared to only 84,000 in 1985.

Life expectancy, which was 73.9 years in 1985, has increased further to 78.4 years. The infant mortality rate has fallen from 7.6 to 2.2 per 1,000 live births over the same period, one of the lowest rates in the world.

With globalisation, Singaporeans travel much more. In 1985, Singaporeans only made a total of 480,000 trips overseas. Today, this figure stands at 4.4 million. Singaporeans on the whole have a much more international outlook.

Our arts and sports scene has become livelier. The number of arts performances more than doubled from 1,700 in 1991 to 4,100 in 2001. The number of visual arts exhibition days increased from 2,400 to 8,500 in the same period. The Esplanade is a new international icon for Singapore. It will bring the arts to more Singaporeans and spur our artists on to create more meaningful and original works.

We have made encouraging progress in sports as well. Singapore achieved its best ever results in international competitions such as the Commonwealth Games and Asian Games in 2002. Events such as the Rugby 7s, Tiger Skins and Standard Chartered Singapore Marathon have established Singapore as an attractive venue for international sports events.

The arts and sports scene will offer both Singaporeans and non-Singaporeans a vibrant and gracious quality of life. This will help us to retain and attract talent, create more jobs and stimulate ideas across other sectors of the economy.

> Conclusion

Overall, the Singapore economy and society have made tremendous progress since 1985. Our economic development in the past two decades has placed us squarely as an investment-driven economy. We have attracted many world-class companies to use Singapore as a total business centre. The inflows of foreign investment have helped to drive our economic growth.

However, our competitors are doing the same. Other regional and emerging countries are also striving to attract investment and vying to become business hubs. Global competition has intensified. As Singapore becomes more developed, the economic race ahead will become harder. We will need to work doubly hard to overcome the challenges ahead and sustain healthy economic growth.

A turning point

Chapter 2 >>>

Singapore has reached a turning point in its economic development. For more than two decades until the Asian Financial Crisis in 1997, Singapore enjoyed consistently high growth. Southeast Asia was doing well, foreign investment grew year by year, and our exports expanded. We upgraded our economy, and transformed the lives of Singaporeans in less than a generation.

The last five years, however, have shown clearly that this phase is over. The Asian Financial Crisis plunged Southeast Asia into political and economic uncertainties. The US recession marked the end of a long boom, and the beginning of a new period of slower growth. After September 11, 2001, the discovery of terrorist groups in Southeast Asia linked to Al Qaeda brought new anxieties that will stay with us for many years. We are facing significant challenges both in our external environment and on our domestic front.

External and domestic challenges in a new environment

> External Challenges

Globalisation and Technological Advances

First, globalisation and rapid technological advances are driving fundamental, long-term changes in commerce, industry and our daily lives. Markets, industries and companies are becoming global in scope, reaping huge economies of scale, and recouping expensive investment in R&D.

Globalisation extends to the market for talent. Talent is the key resource in the knowledge economy, and today, is in enormous demand everywhere. Talented people are internationally mobile. They have the option of pursuing their interests and living and working wherever the 'buzz' excites them. The alternative to a job in one country is not another job in the same country, but another job almost anywhere in the world. Talent therefore commands a world price. To attract world-class talent, employers have to offer them challenges and rewards comparable to what they can expect elsewhere.

Globalisation and technological advances open up tremendous opportunities for Singapore. Physical size and natural resources become less of a constraint as we tap markets in the global economy to broaden the basis of our prosperity. Technology itself is a powerful force. The US economy shows just how powerful it is, coupled with the flexibility and dynamism of free markets.

But globalisation and technological advances present enormous challenges too. Countries jostle intensely for pole position, but it is not just countries competing against one another. It is countries together with the talent and capital they have attracted, plus the MNCs which have invested in them. China is a formidable international player not just because of the drive and dynamism of its people and economy, but also because of the growing investment by Fortune 500 MNCs, and the hundreds of thousands of foreign entrepreneurs and professionals who live and work there. Hence skilled workforces, strong supporting industries and a business- and talent-friendly environment have become critical ingredients of international competitiveness.

Paradoxically, globalisation has also created a more integrated and collaborative world. It is more critical than ever for countries to be plugged into the global grid. Supply chains have become globalised. The international division of labour is being taken to extremes. Few products are now made entirely in a single country. The task is split into many small components distributed all over the world, in a dynamic production network that is constantly adapting itself to changing market conditions. The dual challenge for every country is to carve a niche for itself by excelling in some areas of production, while linking up with as many economic partners as possible, so that its exports fetch the maximum value in world markets.

To survive and grow in this environment, companies must continually restructure themselves and upgrade their products and processes, or else be pushed aside by competitors. Old jobs are being destroyed, to be replaced by new ones which demand greater knowledge, skills and adaptability from workers.

Workers everywhere, therefore, can no longer expect the security of lifetime employment, but must be prepared for job changes several times in their working lives. This constant flux means uncertainty and insecurity. In many countries, workers have responded by clinging to the *status quo* and resisting change. It is a challenge for countries plugged into the global grid to manage these changes, so that their workers can not only cope, but can take advantage of new opportunities. The alternative, to opt out of globalisation and get off the treadmill, no longer exists.

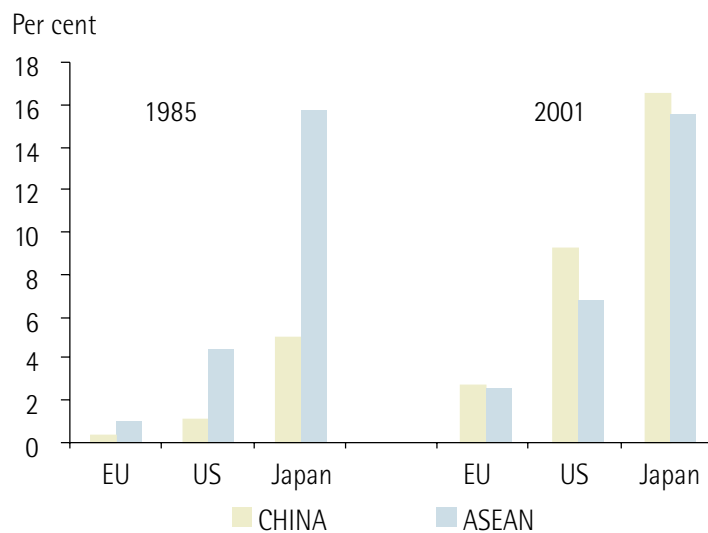
China and India

Second, new players, especially from Asia, are emerging in the world economy. As they strengthen their capabilities, attract more investment and export more sophisticated products, they will become increasingly formidable competitors.

One key emerging player is China, which has been completely transformed since opening up to the world economy in 1978. China's GDP has grown from US\$215 billion in 1978 to US\$1.2 trillion in 2001. Its exports have increased from US\$10 billion to US\$266 billion over the same period, expanding its share of the US,

Japanese and the EU markets dramatically compared to Southeast Asian countries [see [Chart 2.1](#)].

Chart 2.1: Share of China and ASEAN Imports by Major Markets



Source: US Census Bureau, Ministry of Finance, Japan, International Monetary Fund

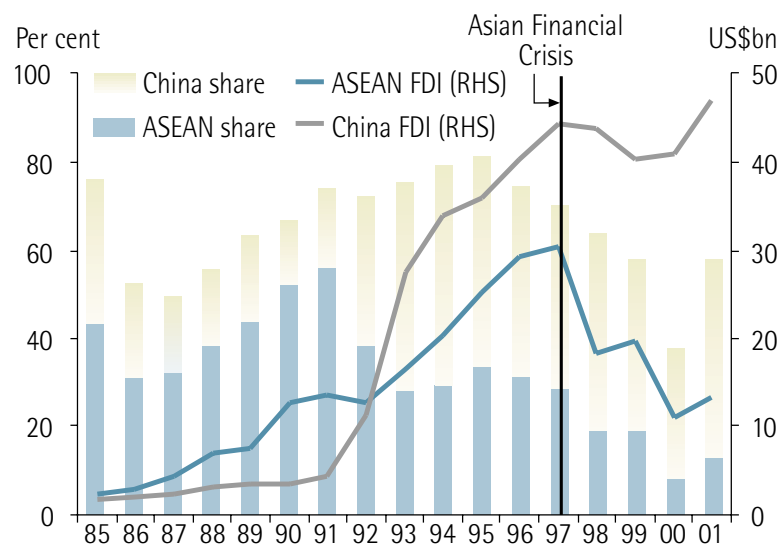
China is already a global centre for hardware manufacturing. It is rapidly building up its capability in the more knowledge-intensive areas such as software development and R&D, supported by a plentiful supply of highly educated and skilled workers¹.

MNCs are investing heavily in China. Since 1992, China has been the largest recipient of foreign direct investment (FDI) in Asia. The OECD has even predicted that FDI flows to China could amount to US\$100 billion in 2010. ASEAN, on the other hand, has lost some of its attractiveness to foreign investors since the Asian Financial Crisis [see [Chart 2.2](#)].

However, China is unlikely to soak up all the FDI to Asia. MNCs will want to spread their exposures, and not concentrate everything in one or two countries. And as incomes in China rise, the cost advantage that it now enjoys will narrow.

¹ Each year, Chinese universities produce about a million new graduates, of which about 500,000 major in science and engineering. In comparison, Singapore's three universities produced just about 10,000 graduates in 2001.

Chart 2.2: FDI Flows to China/ASEAN and as a Share of Asia's Total FDI



Source: United Nations Conference on Trade and Development

China is not the only awakening giant in Asia. India, with a population of 1 billion, including a middle class of about 300 million, has the potential to become a significant economic power as well. A consensus is gradually emerging in India that the country must abandon the old model of the 'licence raj', lower its high trade barriers and plug itself into the international grid, in order to prosper with the rest of the world.

The reforms in India may not yet be as vigorous and profound as those in China, and the results not as spectacular. But in the decade since India started liberalising, the economy has been growing 6 per cent annually, reaching US\$480 billion in 2001. Some specific sectors have taken off, especially IT. India exported US\$7.6 billion of software and related services in 2002. By 2008, India's software industry is expected to employ 4 million people and generate US\$57 billion in exports.

In the longer term, the emergence of China and India is undoubtedly a positive development for the world economy. A more prosperous China and India will mean bigger markets, more investment opportunities and bigger trading partners for Singapore and the region. As China and India export more, they will also import more.

In the short term, however, the entry of China and India into the market will mean dislocation in many countries, as industries restructure and relocate, and trade patterns change. Some workers will lose their jobs, while other industries will need workers, but those with different skills. Furthermore, while the overall global economy is wealthier, not every country will necessarily emerge better off. Countries which are competing head-on in the same products and markets will have to make painful adjustments. But those which have kept ahead will find opportunities to expand trade and investment with China and India, and benefit from their growth.

Southeast Asia

In contrast, Southeast Asia has suffered a reversal in its fortunes. Before the Asian Financial Crisis, Southeast Asia played a star role in the Asian economic miracle. The region was booming, with economies recording double-digit growth.

The Asian Financial Crisis in 1997, however, ended the boom abruptly. Unemployment rose, businesses folded, and governments and societies came under stress. Global investors' confidence in the region was severely dampened, and FDI was diverted away to Northeast Asia.

Southeast Asian economies are still working through the aftermath of the Asian Financial Crisis. Although growth picked up somewhat in 1999-2000, the region was hit by the downturn in the global electronics industry and the US recession in 2001. Today, the combined GDP of the original five ASEAN members is still about one-fifth lower in US\$ terms compared to 1997 and growth rates have not recovered to pre-crisis levels.

The economic malaise has been aggravated by the uncertainty in the regional political and security situation, particularly the rise of political Islam and the threat from extremist regional terrorist groups linked to Al Qaeda, as recently highlighted by the bombing in Bali.

Being part of the region, Singapore had thrived as we serviced our neighbours and invested in their prosperity. But today, we share their worries. While Singapore is too small to influence events in the region, we must nonetheless monitor developments carefully as they will affect us. Going forward, we must adjust our policies and strategies to secure Singapore's long-term growth amidst the difficult regional environment.

> Challenges on the Domestic Front

On the domestic front, Singapore is also at a crossroad. We have grown rapidly, and transformed our economy within a generation. However, the days of heady, double-digit growth are behind us. We must prepare for slower and more difficult growth.

On the demand side, the external environment has changed. The region is facing difficulties that will not be resolved in the short term. The US economy, which has long been a key driver of the Singapore economy, will grow more slowly than during the years of the long boom.

On the supply side, our economy is maturing. Our per capita GDP has reached OECD levels. So too our education profile is nearing developed country levels. It will not be possible for us to repeat the same dramatic transformation as we achieved over the last two decades, and therefore the same rates of growth in output and living standards.

On top of this, the speed of economic restructuring is likely to remain high and in fact, accelerate in the future. Lower-educated, older workers still in our workforce, mostly from the post-war baby-boom generation, will bear the brunt of this restructuring. In addition, our ageing workforce makes it harder for our economy to adapt to restructuring. Our workers will experience painful dislocation and structural unemployment, which were never serious problems in the past.

In addition, our fiscal position will become tighter. With a less buoyant economy, revenue will be reduced. On the expenditure side, there will be increasing pressure for greater spending on social infrastructure, including healthcare. We cannot look forward to the easy budget surpluses that we have become used to.

> Conclusion

Singapore has entered into a new environment with a fundamentally altered set of conditions. The days of relative political stability and the booming economies of Southeast Asia and the US, experienced in the past two decades, are over. So are the days of double-digit GDP growth for Singapore. We will have to grapple with slower growth amidst tighter resources.

However, this new environment also offers opportunities that benefit small and nimble states like Singapore. Globalisation, technological advances and the emergence of China and India all present new prospects for growth.

The ERC's objective is to fundamentally rethink our strategies for economic development in this changed world and deal with the challenges ahead.

Lowering costs, staying competitive

Chapter 3 >>>

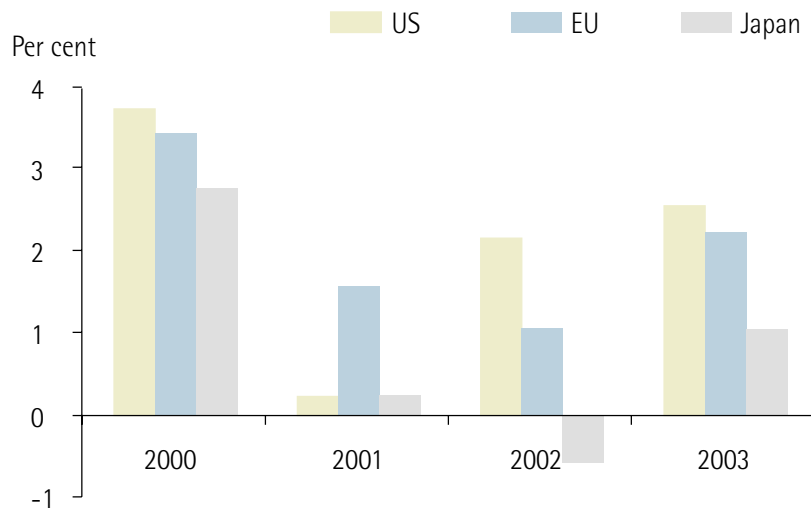
> Near-term Uncertainties

Even as we tackle the strategic challenges, we need to manage the current economic situation. A sound recovery from the severe recession in 2001 will help us to make the fundamental changes needed to prosper over the longer term. Our recovery thus far, however, has been less vigorous than expected. The economy is still weak, though growth has been positive, and non-oil domestic exports are picking up. Overall, the economy grew by 2.2 per cent in 2002.

The outlook for 2003 is clouded and uncertain. The Ministry of Trade and Industry's (MTI) preliminary forecast is for 2–5 per cent growth. The risks are not only economic, but also security and political, especially with the possibility of another major terrorist attack, and a war in Iraq. The EU and Japanese economies remain sluggish. In the US, most analysts expect a gradual recovery, supported by steady consumer spending and a more substantial pickup in corporate investment, in the second half of 2003. On the whole, the major advanced economies are expected to grow by 2.3 per cent in 2003, slightly better than the 1.4 per cent in 2002, but below their full potential. The lethargic G-3 economies will, in turn, cause a drag on the growth prospects for Singapore as well as our neighbours [see [Chart 3.1](#)].

Dealing with immediate economic uncertainties

Chart 3.1: Slow Recovery in G-3 Economies



2002 and 2003: Forecast

Source: US Department of Commerce, Bureau of Economic Analysis, Economic and Social Research Institute, Cabinet Office, Government of Japan, International Monetary Fund

Against this difficult backdrop, globalisation is proceeding apace. Every country is facing intensified competition. Asia is already feeling the impact of China's transformation. MNCs and financial institutions see more business opportunities in China and fewer in Southeast Asia, and are restructuring their activities and presence in Asia correspondingly.

Nearer to home, Southeast Asian countries, particularly our immediate neighbours Indonesia and Malaysia, registered positive growth in 2002. But their FDI inflows have fallen significantly, in response both to regional uncertainties and to competition from China. One significant concern is the security threat. Since the terrorist attack in Bali in October 2002, analysts and financial institutions have revised downwards GDP growth forecasts for 2003 for Indonesia and Malaysia.

Singapore has not been immune from these trends. Over the past three years, our manufacturing sector too has been restructuring. Familiar names like Hitachi and Sanyo have closed manufacturing plants here and shifted their operations to China. In 2002, companies like Philips and ING Investment Management relocated their Singapore regional head offices to Hong Kong to save costs and be nearer to their biggest Asian market.

This restructuring is a major reason why we are experiencing higher retrenchments and unemployment. The unemployment rate reached 4.8 per cent in September 2002 and is expected to stay around 4–5.5 per cent in 2003. For the whole of 2002, the number of workers retrenched is expected to be around 18,000–20,000. We expect this pace of restructuring to continue into 2003.

Fortunately, unlike other regional countries, Singapore has maintained the inflow of foreign investment. In 2002, we registered \$9 billion of manufacturing fixed asset investment, including nearly \$7 billion worth of foreign investment, and accounting for nearly \$2 billion in total business spending. This is about the same amount as in 2001. But the going is getting tougher. Companies are still keen to learn what we have to offer. They know that Singapore is taking decisive steps to strengthen itself. But they weigh this against the attractions of emerging new players like China, as well as the regional climate in Southeast Asia. Our economic agencies have to offer more incentives to get companies to commit projects to Singapore.

Given these cyclical and structural factors, therefore, our assessment is that while the Singapore economy should continue to grow moderately in 2003, it is likely that full recovery will only take place in 2004. We cannot be complacent.

> Dealing with Immediate Issues

These immediate problems make it more urgent that we restructure our economy to strengthen our position, rather than slow down essential changes. However, we should adjust the detailed implementation of our strategies, to take into account the present economic situation. Hence, in tax restructuring, the Government is phasing in the GST increase from 3 per cent to 4 per cent this

year, and then to 5 per cent in 2004, while retaining the original offset package. This will lessen the burden on Singaporeans, and help them cope with the uncertainties we are now facing.

More importantly, we must not undermine our cost competitiveness before the longer-term strategies can take effect. We must continue to manage business costs carefully, so as to give ourselves time to carry out the restructuring, and avoid giving companies any added incentive to move out their Singapore operations.

CPF Restoration

Wages form the largest component of the part of business costs which we can influence. The ERC supports the National Wages Council's (NWC) recommendation for continued wage restraint, including wage freezes or wage cuts for companies whose business, profitability or prospects are still adversely affected by the economic downturn. It is far more important to tighten our belts and save jobs than to have wage increases which will lead to the jobs moving elsewhere.

These NWC recommendations are for six months, until July 2003 when the NWC will return to its normal annual cycle. But the imperative to watch our cost competitiveness is unlikely to change soon, and the tripartite partners should take this into account in assessing the outlook and setting guidelines for wage settlements over the next two years.

The ERC does not recommend an extended across-the-board wage freeze, because this would be rigid, would lead to distortions in the labour market and be against the interests of workers. For the labour market to work properly, wages have to respond to market forces, not just the immediate prospects but also the medium-term outlook for the industry and the whole economy.

Instead, the ERC recommends that the Government defer any further restoration of the CPF contribution rate, beyond its present level of 36 per cent, for two years. While the CPF constitutes important old age savings for workers, it is also a statutory burden on wage costs for employers. Deferring further restoration

will avoid adding to this statutory burden at a difficult time. It will also send a strong signal to investors that Singapore is acting decisively to consolidate its competitive position.

The Government has stated its intention to restore the CPF contribution rate to 40 per cent, when economic conditions permit. The ERC supports a progressive restoration of the CPF rate to 40 per cent after the two-year period. However, the timing and pace of the restoration should take into account economic conditions then, and especially Singapore's cost competitiveness vis-à-vis other countries.

The restoration of the CPF contribution rate was linked to two other key CPF changes: reduction in the CPF salary ceiling for both employers' and employees' contributions from the current \$6,000 to \$5,000, and lowering of the employees' CPF contribution rate for workers aged 50-55 from the present level of 20 per cent to 16 per cent. The ERC recommends that the Government proceed to phase in these two changes and not defer them for two years, as the rationale for deferring the CPF restoration does not apply to them. We continue to urge employers to share their cost savings from the reduction in the CPF ceiling to deserving workers, such as through the variable component of their wages.

Foreign Worker Policies

A major advantage that companies in Singapore enjoy is the flexibility to hire not just Singaporeans, but also foreign professionals and workers whom they need. Even in a downturn, some industries and firms still cannot find enough Singaporean workers, especially those with the right skills and experience. This is so in the manufacturing sector, notably in the shipbuilding and repair industry.

Our foreign worker policies should be flexible enough to allow such industries and firms to employ the workers they need. This will help to keep their overall costs of production down, and make their operations in Singapore more viable. However, businesses cannot compete on low wages alone. To survive and prosper, they must continually upgrade their capabilities and improve productivity.

While we must keep our doors open to foreign workers, we must carefully manage the inflow to benefit our economy. An appropriate levy will regulate the demand for foreign workers, and ensure that they complement rather than displace Singaporean workers, and ultimately create more jobs for Singaporeans.

Land and Other Business Costs

We must manage the other components of business costs. The opening up of the electricity market to competition has helped lower electricity tariffs for consumers, especially the large users.

Land is another significant component of costs. Land costs are especially important for manufacturing projects, where Singapore is in direct competition with other countries. Our industrial land costs must therefore be kept competitive. JTC's recent move to lower industrial land prices and posted rents will not only help existing businesses tide over the current economic conditions, but reassure new investors that sufficient land at internationally competitive prices is available in Singapore for their projects.

Helping Singaporeans Cope

Even as we work to contain our costs and maintain our competitiveness, we must continue to help Singaporeans cope with the current economic difficulties.

Skills training and upgrading remain of paramount importance. New jobs are being created, and existing jobs are still unfilled, even during this slowdown. However, many of the jobs are in different industries, requiring new skill sets. To help workers upgrade their skills and qualify for these new jobs, the Government enhanced the Job Training Programme and the Skills Redevelopment Programme in 2001. The ERC supports the extension of these enhancements for another year until October 2003.

In addition, the ERC is recommending measures to help retrenched Singaporeans find new work, and keep unemployment to a minimum. These include encouraging part-time work, augmenting the Ministry of Manpower's job bank, improving job-matching efforts through better dissemination of information, and counselling to manage the expectations of retrenched workers and ensure proper job fit.

These recommendations on the CPF, foreign worker policies, industrial land costs and reducing unemployment will address the immediate challenges facing Singapore, and should be implemented as quickly as possible. But they also support our longer-term strategies, and will lay the basis for the strategic shifts that will take us forward.

> Conclusion

The outlook for 2003 is uncertain, especially in the first half of the year. We should monitor the situation carefully and fine tune our immediate strategies to maintain our competitiveness, while marshalling our resources and options to deal with the challenges at hand. This will ensure that we can stay afloat while we reposition Singapore for the future.

The way forward

Chapter 4 >>>

Introduction

The dramatic transformation of the Singapore economy over the last 15 years was the result of strong fundamentals built up through consistent, rational policies, based on sound principles and strategies.

The ERC has reviewed the principles which have guided our strategies, and believes that they remain valid today. However, with the changing environment, they cannot be static. We need to build on them, to suit the unfolding situation.

Longer-term strategies to remake the Singapore economy

> Principles and Strategies Reaffirmed

Since Independence, we have pursued rational, prudent macroeconomic policies. Fiscal spending has been disciplined and kept to essentials, avoiding budget deficits and allowing progressive reduction in taxes. Monetary policy has focussed principally on price stability and a stable Singapore dollar. These policies have sustained economic growth, kept inflation low, and preserved the value of Singaporeans' savings. Together with careful supervision of our banking and financial system, they have enabled Singapore to weather the Asian Financial Crisis better than most, and will continue to serve us well in an uncertain environment.

We have stayed open and outward-looking. We embraced globalisation long before it became a buzzword, tapping world markets and attracting foreign investment and talent. We kept our doors open to MNCs, when the conventional wisdom was to protect and grow domestic players.

We have created an overall environment where firms can operate smoothly, efficiently and profitably. We have a worldwide reputation for excellence, reliability and honesty. The Government and Judiciary are transparent and trustworthy. People know that in Singapore, their property, including their intellectual property, will be protected. Here their investment, their businesses and their families will be safe.

Our infrastructure is first-class, up-to-date and well-connected to the world. Businesses can rely on the port and airport, the telecommunications and public utilities, and the financial system. We have built a vibrant enterprise ecosystem in Singapore, where MNCs, larger companies and SMEs flourish and support one another with ideas, innovations, expertise and experience.

We have pursued pro-market, pro-competition policies, leaving the private sector to create wealth. We have allowed free market forces and competition to prevail, avoiding trade barriers or subsidies for our domestic enterprises, as these distort the market and lead to inefficient, uncompetitive industries. Our industries are thus able to properly respond to market signals, adjust their strategies and allocate scarce resources efficiently.

However, the Government is not passive. It scans market developments, sizes up promising industries and sectors in which we can develop an advantage, and builds up capabilities and infrastructure to increase our chances of success. We have to do this because we are small and need to specialise.

The Government has also started enterprises where there is market failure, or where the private sector does not have the capability or capacity to develop the market on its own. Wherever possible, however, the Government has corporatised and privatised these entities, and run them along commercial lines subject to full market discipline.

We have also invested heavily in the education and training of Singaporeans. To help Singaporeans reskill themselves after they have started work, we have expanded facilities and implemented programmes for continuing education and training.

In addition, we have maintained harmonious industrial relations and ensured that the system has the flexibility to deal with changes in our environment, rather than rigidly resisting them. We have developed a strong and responsible labour movement that takes pride in being an equal partner in Singapore's economic success, together with the Government and employers. This unique and proven tripartite formula is one of our major competitive strengths.

Finally, we have upheld meritocracy as a cornerstone of our society, and developed an ethic of individual self-reliance. We have eschewed a welfare state with handouts and subsidies, which create dependence and sap the will to achieve.

Instead, we have balanced the free market system with social equity and full opportunities for all. The extremes of *laissez faire* have been tempered with economic and social policies. The Government has heavily subsidised the provision of housing, education and basic healthcare, and enhanced Singaporeans' assets and enabled them to share the wealth they have helped to create.

We must build on these strengths, and shape them in response to new challenges, so as to position Singapore for the future.

> The Road Ahead: Remaking Singapore for a Different World

Expanding External Ties

The developed countries – the US, the EU and Japan – have been our main growth engines. Despite more uncertain growth in the US, the burden of welfare in the EU, and banking and corporate debts in Japan, these three economies will remain important sources of growth for Singapore, especially the US.

But new and significant engines of growth will emerge. The transformation of China and, to a lesser extent, India will pose enormous challenges as well as opportunities for us. We must position ourselves to exploit these opportunities. We must build up our linkages to these economies, to tap opportunities to expand trade and investment with them.

To do so, we must acquire up-to-date knowledge of China and India, and a good understanding of how business is done there. Our companies must understand well the opportunities and complexities of the business environment in China and India, in order to engage them effectively.

In parallel, we must continue to build up Singapore as a hub for foreign companies to base strategic and high value-added activities here, and to do business with the broader hinterland around us. This is defined by a radius of seven hours' flying time from Singapore and includes not only ASEAN, but greater China, India and even Australia.

We must continue to work with our ASEAN partners to achieve closer economic integration and strengthen our competitiveness as a group. Investors can exploit the complementary strengths of ASEAN countries, and expand their activities in the region.

We have also tapped opportunities for cooperation at the sub-regional level. Batam and Bintan, for example, have ample land and low-cost workers. Singapore has expertise in engineering, design, logistics and quality control. These combined advantages make Singapore, Batam and Bintan very attractive for manufacturing activities, and a viable alternative to China.

We will continue to support the World Trade Organisation (WTO) framework as it remains the foundation for world trade, and protects small countries like Singapore against unfair unilateral trade policies. However, a purely multilateral approach has its limitations. We are therefore supplementing it with bilateral FTAs with key trading partners. We have secured FTAs with Australia, New Zealand, Japan, the European Free Trade Association and the US, and are now actively seeking deals with other partners including Canada and Mexico.

Our bilateral FTAs have sparked off interest from key players to engage the region. The US, China, Japan and India have declared their intentions to conclude FTAs with ASEAN. We must press on with these initiatives, which will increase trade and investment, and bind our economies and destinies more closely together.

Competitiveness and Flexibility

The emergence of China is exerting deflationary pressure on costs all over the world. However, Singapore cannot compete on the basis of low costs alone, as some of our factor inputs are fundamentally constrained by our unique situation. Land-scarce Singapore will never be able to compete with the land prices of larger countries. Our electricity generation is dependent on imported fuel, and prices can never match countries with hydro-electric power or coal resources.

Our sound macroeconomic policies and favourable business environment are pluses, but no longer adequate. We must make decisive changes to improve what we already have and to enhance our microeconomic competitiveness.

First, there is a worldwide trend towards lower direct taxes because what matters to businesses is after-tax returns. We must, therefore, keep the burden of direct taxes on companies and individuals as low as possible, to attract foreign investment and talent, and encourage Singaporeans to create wealth.

The ERC has therefore recommended, and the Government has decided, to reduce corporate and personal taxes, to bring the top rates down from around 25 per cent to 20 per cent over three years. In order to partially make up for the loss in revenue, we must raise the GST from 3 per cent to 5 per cent.

Second, we must refocus our CPF on its core purpose of providing for the basic financial security for the majority of our people. To be sustainable over the long term, the CPF cannot impose an unnecessarily heavy statutory burden on employers, especially for older workers.

The Government has accepted the ERC's earlier recommendations for changes to the CPF framework including higher contribution rates for the Special Account, reduced mandatory contributions for high income earners, imposition of a limit on CPF withdrawals for housing and lower CPF contribution rates for older workers aged 50–55. The ERC's further proposal to defer any restoration of the CPF contribution rate for two years, will help us to avoid increasing the statutory burden on wage costs until the economy has fully recovered.

Third, we must continue to make the labour market more flexible, to keep workers in jobs, and help retrenched ones to find new jobs. The CPF changes contribute to this goal. The Government should also facilitate companies wanting to adopt more flexible working arrangements to suit the demands of their businesses.

We should move faster on wage reform. Wages need to be more flexible. They should depend less on the seniority of a worker, and more on his performance and his company's profitability. The ERC recommends that companies move away, more quickly, from the seniority-based wage system. It also recommends that companies build up the Monthly Variable Component (MVC) expeditiously.

Finally, we must ensure that our infrastructure services and factors of production are priced as competitively as possible. Whether it is telecommunications, port services, power supply, or industrial land, we should encourage competition and ensure adequate supply, in order to promote efficiency, lower costs and raise standards. We cannot subsidise services below their true cost, but neither should we allow monopoly pricing to push up business costs.

In particular, the land market must be flexible and efficient, so that Singapore can make optimal use of the limited amount of land available. It is especially important for industrial land to be appropriately priced, so as to help the manufacturing sector stay competitive.

Entrepreneurship

For the longer term, our basic strategy is to upgrade ourselves and make Singapore a knowledge economy, banking on creativity and innovation to power the economy and tapping the potential of IT in all areas. For a small, resource-scarce country like Singapore, this is our only option to survive.

In addition to the relevant knowledge and technical skills, Singaporeans must have the right mindsets and attitudes for a knowledge economy. Our culture should accept diversity and failure, and embrace a broad notion of success. Singaporeans need to be more entrepreneurial, willing to take risks, seize new opportunities and thus create niches for themselves, whether they launch startups, work for MNCs or the public sector. As regional markets like ASEAN, China and India open up, our people must have the drive and spirit to conceive new business ideas, strike out on their own and venture abroad.

We need to strengthen incentives for Singaporeans to be innovative and venture beyond their comfort zones. We also need to refocus safety nets on the truly needy, and minimise the people's dependency on the State. There will be no entrepreneurship without self-reliance. Ultimately, the way to promote enterprise and creativity is through less Government intervention rather than more. An individual's success must depend on his own efforts and abilities, rather than on handouts from the State. Then our people and our companies will have every incentive to be enterprising, and the competition will strengthen the players and produce winners who can hold their own.

Promoting entrepreneurship and creativity raises deep issues of culture and social values, and is a long-term exercise. It is therefore all the more important to start early, and to sustain the push. The Government set up the Technopreneurship 21 Ministerial Committee in 1999 to oversee the development of technopreneurship in Singapore. To broaden the scope of this effort, in 2001, the Government redesignated the committee as the Entrepreneurship 21 Ministerial Committee. To sustain our efforts to encourage entrepreneurship and creativity, the Government should designate a Minister (or Minister of State) to work with the Entrepreneurship 21 Ministerial Committee, and focus on driving the initiatives for a more entrepreneurial Singapore at the operational level.

A key outcome of our efforts to promote entrepreneurship and creativity for a knowledge economy should be the growth of strong Singapore companies which can expand beyond Singapore, broaden our economic base and make our economy more resilient.

Growing Singapore companies should be addressed at three levels. First, we want to encourage the growth of enterprising startups and SMEs. We want more of our domestic enterprises to develop their own products and own the associated IP. Such companies can be a breeding ground for new wealth creators and revolutionary ideas, capturing more of the value accruing to upstream activities like R&D or product development, and downstream activities like branding and marketing. Not all will make it, but some will be successful, and in time will form a new generation of major companies.

This requires an environment in which enterprises can start up and grow. We need to keep our regulations to the minimum, and ensure that regulatory/licensing requirements do not bog them down. The ERC also recommends that the Government undertake initiatives to improve the access of emerging enterprises to financing, while still subjecting the companies to the discipline of the marketplace. Ministries and statutory boards should avoid spawning companies to provide services which private firms can provide, and crowding out the private sector.

Second, we have a group of major Singapore companies, including GLCs, which have the capacity to become international players. These companies have attained significant scale, technical capabilities and organisational depth, and need to venture beyond our shores to continue growing their businesses. As regional markets like ASEAN, China and India open up, they must be prepared to seize these opportunities, and should be encouraged to do so.

The ERC recommends that the Government adopt a holistic approach in developing a global brand name for Singapore, and encourage and support Singapore-based enterprises in their branding efforts. As not many Singapore enterprises have all the necessary competencies to compete abroad, the Government should promote a cluster approach among companies venturing overseas, where larger

companies lead a cluster of enterprises, including SMEs. The ERC also recommends that the Government eliminate double taxation of foreign source income that is remitted to Singapore.

Finally, there is a group of small, traditional companies, particularly in retail and personal services, which face serious difficulty adapting to the new, knowledge economy. We need to help them rationalise, upgrade themselves and meet the needs of a new generation of customers. We need to encourage these smaller domestic enterprises to become more innovative, and to experiment with new concepts, processes, products and services. We should also promote a new orientation towards service excellence by initiating a national movement for service excellence. The excess capacity in small local enterprises should be rationalised and restructured, including through the use of financial incentives.

Manufacturing and Services: Twin Engines

One area where the Government has intervened successfully is the manufacturing sector. Manufacturing accounts for more than half of our exports. It generates many spin-offs for the economy, contributes to the development of our domestic support industries, and gives us precious access to technology and management know-how. It creates well-paying jobs for Singaporeans with the technical skills and inclinations suited for the manufacturing sector. It also gains us valuable links to global markets.

Manufacturing will continue to be a key growth engine, but the competition will be tough. Every country is seeking to upgrade its manufacturing and we must do likewise to stay in play, especially in the face of competition from lower-cost economies like China. We must continue to attract high quality investments, by ensuring that our business environment remains competitive and the skills of our people are commensurate with our cost levels. We must develop capabilities in new areas such as industrial IT, micro-electromechanical systems, nanotechnology and photonics to improve the sophistication and growth potential of our existing manufacturing base of electronics, chemicals, biomedical sciences and engineering.

The ERC recommends that the Government improve our infrastructure by providing cluster-focused, shared facilities for new technology industries as we have done with our petrochemical complex on Jurong Island.

Manufacturing will become more knowledge- and research-intensive. We must strengthen our R&D efforts, so as to create and exploit IP. MNCs should make Singapore a key node in their global R&D networks, and should be encouraged to base major R&D and product development efforts here.

To achieve this, IP protection is critical. The ERC recommends that the Government strengthen patent protection laws, facilitate low-cost filing and establish an IP Academy to train IP professionals. The Government should also promote cooperation and co-development of products and processes between research institutes and local enterprises, to bridge the gap between research and commercialisation.

While we maintain manufacturing as a growth engine, we need to put more emphasis on growing our services sector. A strong manufacturing engine contributes to the growth of services, and likewise, a strong services sector makes factories in Singapore more competitive.

We must pay particular attention to exportable services. As China and India grow and prosper, their expanding middle classes will seek high-end, better-quality services, whether educational, medical or financial. The ERC believes that Singapore is well-placed to meet part of this demand and be a regional services hub. High quality service industries rely on a well-educated workforce, good physical infrastructure, a conducive legal environment and a sound reputation for quality and reliability.

Because our resources are limited, we have to focus on services which we are already or can become strong in. Traditional areas like trading and logistics, ICT, financial services and tourism have grown and we must continue to upgrade, liberalise and develop them.

At the same time, we should promote new areas such as healthcare, education and creative industries. We must market these services more aggressively, and systematically build up Singapore as a hub for them. In parallel, we must simplify our procedures and regulations to make it convenient for overseas customers to come to Singapore to make use of our services.

Unlike manufacturing, where EDB is the single promotion agency, services are too varied for all types of services to be promoted by a single champion. Some services have a social or public welfare element, for example education, healthcare and media. Others have high market concentrations, like telecommunications and port-related services. Still others require supervision to uphold standards and safeguard the public, as in the case of professional services.

As a result, services are subject to more complex regulations and policy trade-offs than manufacturing. Wherever possible we should relax or lift regulations that impede the development of our targeted services industries. But in doing so, we must strike a careful balance between economic and social objectives. The ERC recommends that the Government set up a Ministerial Committee on Services, to review these issues, make rational trade-offs between conflicting objectives, and coordinate Singapore's efforts to develop our key services industries.

Human Capital

To successfully implement these longer-term strategies, our people must have the right mix of hard and soft skills. We must focus on developing our human capital, ensuring that as many Singaporeans as possible are equipped with the know-how and skills for a knowledge economy.

In promoting entrepreneurship and creativity, we must start with pupils in school. An entrepreneurial and enterprising spirit is one of the Ministry of Education's (MOE) Outcomes of Education for secondary and pre-university education. The school curriculum has been streamlined and revised to provide our students with opportunities to think, reflect and explore, through open-ended activities, project work and more skills-oriented assessment modes. The Government has accepted the recommendations of the Review Committee on JC/Upper Secondary Education for a broader and more flexible JC curriculum and a more diverse JC/Upper Secondary education landscape. The on-going restructuring of the university sector will inject greater diversity in the provision of university education to better cater to larger cohorts with more varied educational needs and aptitudes. These efforts should continue and extend even to the adult workforce.

Hitherto, we have deliberately directed our education and training policies towards producing numerate and technology-savvy people to support a vibrant manufacturing sector. We should maintain this emphasis on technical and engineering education. However, as we develop service industries with good growth potential, we will also need to train and equip sufficient people with the capabilities and knowledge to work in these new areas. We must also develop a stronger research culture among young Singaporeans, and nurture those with a passion for research through exposure and postgraduate education.

Even as we develop Singaporeans, we must continue to welcome global talent. We have many talented Singaporeans, but the indigenous pool is too small to meet the needs of an increasingly sophisticated and globalised economy. We need to bring in people to supplement our talent pool. We not only need managerial and technical talent. We also need to attract foreign entrepreneurs, so that Singapore is a hub not only for MNCs, but also for SMEs and startups from all over Asia.

In addition, more Singaporeans are venturing to live and work abroad. We must maintain links with this overseas network, and tap on their contacts and expertise. The ERC has proposed, and gladly notes, the setting up of the Majulah Connection to engage overseas Singaporeans. Such a network will help a valued part of our Singapore family contribute to the nation, and stay rooted to Singapore.

Restructuring and Employment

Economic restructuring will invariably have a big impact on Singaporeans, with more frequent job displacements, changing employment structure and work arrangements, need for continual education and upgrading, and the increased threat of long-term unemployment. We must manage the pain and dislocation associated with economic restructuring so that they will not cause Singaporeans to resist urgent and essential changes.

Training and retraining remain critical to help Singaporeans upgrade and update their skills, and ensure that they remain relevant and employable. We are making changes to the education system to prepare our children for the future. But

the time spent in formal education is only a fraction of the economically active life span of an individual. To promote continuing education and training, the ERC recommends that the Government set up a national Continuing Education and Training (CET) body.

We need to help unemployed Singaporeans find new jobs as quickly as possible. The Ministry of Manpower should work with employers, including the public sector, to augment its job bank, and help match the jobs with retrenched Singaporeans. Counselling is also important to manage the expectations of our workers and ensure proper job fit. The ERC therefore recommends a comprehensive approach to helping the structurally unemployed, with the assistance of career counsellors, to identify their personal competencies and aspirations, suitable jobs and the additional skills that they need to develop to secure employment.

Despite our efforts, there will be retrenched Singaporeans who will take more time to find re-employment. They will need assistance to tide over their longer period of unemployment, especially lower-income individuals and families. As the basic intent is to provide temporary and not prolonged assistance, we must help these unemployed Singaporeans return to work as quickly as possible. The ERC therefore recommends that the Government refine its existing assistance schemes, focussing on those who need assistance most, ensuring stronger linkages between assistance and efforts by the recipients to find work or attend relevant training, and improving the delivery of assistance.

> Conclusion

The ERC recommendations sketch out the broad roadmap for our future economic strategies. But the world is not static, and we cannot pursue these strategies independent of the changes taking place. We will need to review their implementation after 2–3 years, and make adjustments and fine-tuning as we press on with the necessary changes. If we persevere as we have done in the past three decades, we will be able to build a better Singapore in the years ahead.

A globalised, entrepreneurial and diversified economy

Chapter 5 >>>

Each generation of Singaporeans will face its own unique test of fire. Their response will determine the fate and future of the nation. Our founding fathers confronted and overcame great odds. They developed our character as a nation, a spirit of resolve and sacrifice, and also of solidarity. They built and handed down to us solid foundations upon which to withstand storms and adversity, and realise our dreams and aspirations.

We have seen two major phases of economic transformation in our history, taking us from the third world to the first world in a generation. In the first two decades from 1965, we transformed Singapore from a colonial economy dependent on entrepot trade and the British Army, to a newly industrialised economy. This phase ended with the recession in 1985.

The Economic Committee's Report in 1986 set out strategies for the next phase of development. From 1985 till now, we attracted new, higher-valued investment in manufacturing and services, and deepened our pool of skills. Singapore moved up to first-world incomes.

The Asian Financial Crisis marked the end of this second phase. Today, we stand at the threshold of the next phase in the upward path of the Singapore economy. This transformation will be as challenging, if not more so, than our earlier two phases of development.

Singapore – a leading global city, a hub of talent, enterprise and innovation

> Our Future

Our next leap will be to make Singapore a leading global city – a hub of talent, enterprise and innovation, and one of the best places in Asia to live and work. By remaking and upgrading ourselves, we can achieve this in another decade and a half.

We will host both global MNCs and emerging business networks that link up China, India and Southeast Asia, and beyond.

We will be an oasis of knowledge and talent, more open than any other Asian city. We will be a hub of enterprise and innovation.

We will have a broad economic base, with services complementing manufacturing, startups complementing established companies, and Singapore companies complementing or becoming MNCs.

We will also be a fun and fulfilling place – vibrant, cosmopolitan, unique and confident in our blend of cultures and the arts, where East meets West and diverse ethnic heritages co-exist with modernity. Our society will be one that respects all achievements, be they in business, the sciences or the arts.

> Our Strengths

We already have significant strengths which provide the foundation for our efforts. We have an attractive business environment with a reputation for excellence, reliability, transparency, stability and honesty. Our infrastructure is first-class and we are well-connected to the world. Our labour force will continue to upgrade as younger, better-educated Singaporeans enter the labour market and older workers are retrained. Global talent will supplement our talent pool. Our multiracial population, English speaking but bilingual and familiar with different cultures, is well-placed to tap the growing opportunities in an Asian economy which is plugged into the global grid.

We must build on these strengths, and be willing to make bold adjustments.

> Globalised

By 2018, the global economy should be more integrated, as WTO members continue to liberalise their economies. The US and the EU will remain major economies. But by then, it will be a different Asia.

The combined GDP of East Asia will be bigger than the US or the EU. China's transformation will be well advanced. Shanghai and other coastal cities will pull along the inland provinces, like leaders of a flock of flying geese. China's export industries will command a major share in world markets. Its own already large market will continue to grow with the growing affluence of its populace.

Like China, India should see exponential growth of its middle class, if it continues reforming its economy and raises its growth rate. Japan should have broken out from the economic doldrums and be growing again.

Southeast Asian economies would have resolved their political and security difficulties, and returned to a path of stability and progress. Despite the problems in some countries, this would still be one of the faster growing regions of the world. Within 15 years, countries like Vietnam should have taken off economically. ASEAN would have achieved deeper economic integration with a market of over 500 million people, and stronger links with the rest of the world especially through FTAs with China, Japan, the US and India.

Singapore would be a key node in the global economic network, linked to all the major economies. In Asia, we will be a major hub serving the region, together with other cities like Hong Kong and Shanghai. Our efforts to build links to China and India would be yielding dividends. Both will be large export and investment markets for us, as well as significant sources of technology and talent. Our companies will have established a significant presence in them and the region. China and India will have started investing overseas, though to a lesser extent than the US, the EU and Japan today.

> Entrepreneurial

Singapore will have graduated into a knowledge-based, innovation-driven economy. We will be a trend-setting city-state, a creative and entrepreneurial society.

We will be a society open to new ideas, always eager and quick to change for the better. New immigrants and visitors will bring new thinking and diversity and create new linkages and opportunities. Our people will pounce on half-opportunities, be willing to take calculated risks to create fresh businesses and blaze new paths to success. Society will welcome those who dare to be different, and celebrate those who succeed brilliantly. But it will also accept those who meet setbacks, and encourage them to pick themselves up and try again.

In a rapidly changing environment, each Singaporean will be alert to the world around him, respond creatively to it, and by his or her resourcefulness, create further opportunities and wealth. These values will be expressed not only by entrepreneurs launching startups, but also by workers in offices and factories, managers and professionals, and public officers in the Government.

Singapore will have developed the full spectrum of risk capital to fuel entrepreneurship. Just as more Singaporeans will take the road less travelled, so too more investors will fund promising ventures in their different stages of growth. Markets bringing together savvy investors and budding entrepreneurs will support the continuing renewal of our economy.

Singapore will also embrace global talent, attracting not only technical and management professionals, but also those with entrepreneurial and creative flair. They will add to our dynamism and cosmopolitan character.

> Diversified

We will have more engines of growth and a more diverse base of players, as we upgrade existing activities and companies and nurture new ones. In broad terms, we will maintain the current mix of manufacturing and services. But within each sector we should see major changes.

Manufacturing and Services

The manufacturing sector will continue to move up the value chain, and become more knowledge- and research-intensive. The key clusters of electronics, chemicals, engineering and biomedical sciences will be more concentrated in high value-added activities. Our long-term investment in R&D and training of skilled manpower in the research institutes, universities and industry would have yielded a portfolio of IP, to be skilfully commercialised. MNCs will base major R&D and product development activities here, and make this a key node in their global R&D networks.

Advances in the biomedical sciences, embedded software and micro-electro-mechanical systems, and new technologies such as nanotechnology and photonics will enable us to grow new industries.

Services exports will be a major engine of growth. Singapore will be Asia's leading provider of world-class services. Established areas like tourism, trading and logistics, ICT and financial services will continue to grow as we deepen our capabilities and strengthen our competitiveness. New areas like education, healthcare and other professional services will have taken off and become significant contributors to our GDP. Clusters of creative industries, especially in performing arts, design and media, will add breadth and buzz to our economy.

Both manufacturing and services will become more innovation- and knowledge-driven, thriving in an environment that offers good protection and opportunities to commercialise IP. Singapore will become an IP management centre and a trusted conflict resolution centre.

Broad Base of Economic Players

Our economy will have a broader range of firms. MNCs will continue to play a significant role, as they base regional HQs and more sophisticated activities here to do business with the broader hinterland around us and coordinate their regional and international strategies. This will be balanced by a larger and more vibrant stable of Singapore companies. Some Singapore companies with the scale and organisational depth will have grown their Asian and worldwide franchises, and become international players. Others will complement and support the MNCs and larger companies in Singapore, providing key components and services.

One visible result of a more entrepreneurial Singapore will be the emergence of a dynamic group of startup companies. We will host startups from many countries, just as we host MNCs. Not all will be at the frontiers of high-technology. Some will be pursuing new business ideas in traditional areas like food and agri-products, restaurants, lifestyle services and logistics. Through innovation, creativity, and technology, they will create value and carve out special niches for themselves. Some will succeed and over time upgrade and grow into industry leaders in their own right.

Wide Range of Jobs

Our education reforms and training initiatives would have resulted in a globally competitive and creative labour force. Changes in our national school system and universities will nurture young Singaporeans with greater breadth and flexibility, and a willingness to experiment. We will see more diverse talents. In addition, many world-class universities will have set up branch campuses in Singapore to complement our own tertiary institutes. They will educate some of our students and attract more talented foreign students to our shores.

Singaporeans will be culturally adept and outward-looking, able to operate in any city in the world. They will have built a reputation for technical and scientific

competence, for being problem solvers with good managerial skills. They will add and create value through constant innovation. These strengths will keep Singaporeans employable.

The mix of jobs will shift, matching the better education profile of our workforce and the diversifying needs of the economy. Many of the new jobs created will be knowledge- and skill-intensive, such as professional services, engineering and scientific work, software development or management functions. They will require new skill sets and competencies, especially those in the creative clusters.

Other jobs will require higher-level technical skills. These will involve quality craftsmanship, complex and customised activities aided by computers, or servicing and maintenance of production systems, laboratory equipment, factory plants and buildings. The job demands go beyond hard skills like technical knowledge and IT competence, to inter-personal skills as well as commitment, pride and professionalism.

Our ITE, polytechnic and university graduates will be well-equipped for these jobs, and well stretched by them. But not every job will be knowledge-intensive or technical. We must expect many routine jobs in factories and offices to be automated and upgraded, or moved out altogether to lower-cost countries. But even high-tech industries and high-end services require a proportion of semi-skilled workers. These jobs can pay well, but they often involve working in clean room environments, keeping irregular hours, or handling demanding customers.

Every Singaporean, regardless of age or educational level, who is willing to adapt to these job conditions and who makes the effort to learn new skills will find a place in the new Singapore economy.

> Growth & Incomes

In this next phase of our development, we are striving for dramatic qualitative change. However, our economy is maturing. Our population is ageing, with smaller cohorts of young Singaporeans. So in quantitative terms, our growth will not be as fast as before.

After the 1985 recession, the Economic Committee had projected that the Singapore economy could grow at an average of 4–6 per cent per annum in the medium term, based on 1–2 per cent annual growth of the labour force and 3–4 per cent productivity growth. We managed to exceed this over the past 15 years, and achieve an average of 7.3 per cent annual growth, because while productivity growth averaged 3.5 per cent per year, our labour force expanded by an average of 3.8 per cent per year, made possible by the inflow of foreign workers.

We believe that going forward our sustainable growth rate would be 3–5 per cent per annum, barring external shocks. This comprises labour force growth of 1–2 per cent, and productivity growth of 2–3 per cent.

3–5 per cent growth will already be an achievement. Few developed countries, at similar levels of per capita GDP, have sustained growth exceeding 3 per cent. But Singapore should be compared not with countries like the UK or the US, but with cities within these countries like London, New York, or Boston, where knowledge-based activities and creative talent concentrate. The cities can grow as fast as or faster than their hinterlands, with much higher per capita incomes than their national average, and indeed than Singapore's. Singapore should emulate the performance of these cities.

Slower growth will have implications on wage increases. In the long run, wages cannot increase faster than productivity. Between 1985 and 2001, real wages increased by 3.9 per cent per annum. Going forward, we expect real wages to increase on average by 2–3 per cent per annum. However, at the lower end of the skill spectrum, our wages will continue to come under pressure from lower-cost countries like China.

Despite this slower increase in wages, if we can sustain productivity growth rates of 2–3 per cent, by 2018 our per capita GDP, measured in today's prices, should reach US\$29,100, 40 percent higher than today¹. This exceeds today's per capita GDP of the UK, Germany and Sweden, and is slightly lower than Japan's.

¹ Assuming 4.0 per cent average real GDP growth, total population growth of 2.0 per cent.

> A Better Future for All

Change will not be effortless. Some Singaporeans will have difficulty adapting and keeping up with the changes. But if they make the effort, with help from the community and the State, nearly all should be able to make it. A few will still fall behind, but with skills training and upgrading, and by focussing Government help on those who need it most, we can keep their numbers as low as possible. As long as our economy prospers, all Singaporeans will share in the fruits of our success.

Making Singapore a leading global city by 2018 will require solidarity and hard work. Even with the right strategies, our progress will depend on external conditions. We are small and open, and must expect to encounter rough weather from time to time. However, if we remain united, and deal resolutely with difficult challenges and unsettling changes, we will stay on course and emerge stronger.

Globalisation is an advantage to a city-state like Singapore. We will be a nation that is relevant and valuable to the world, and a society that is cohesive with a national character of our own. Together, we will create a better future for ourselves and our children, in a Singapore which we will all be proud to call home.

Chart 5.1: Singapore's Projected Per Capita GDP in 2018



Source: International Monetary Fund, Ministry of Trade and Industry