9

Learning and Catch-up in Singapore

Lessons for Developing Countries

George Yeo, Tan Kong Yam, and Tan Khee Giap

9.1 Introduction to Learning and Catch-up in Singapore

The overall competitiveness of a state’s economy is not just about its ability to mobilize resources to achieve quality economic growth. Promoting greater ease of doing business and improving efficiency are also paramount. For instance, Ethiopia is an example of a developing country that has internationalized its economy by plugging into the globalization network. Key objectives are not only to achieve balanced and equitable economic development across the state through effective use of natural resources to accumulate government surpluses, but also to deliver meaningful employment over time to its people, ensuring social stability and a good quality of life for all in a green, sustainable, and liveable environment.

Effective leadership supported by an efficient civil service with budget sustainability are essential for the successful development of any economy, and such is the hallmark of Singapore’s rapid transformation from a third-world to first-world country in only a few decades. To become a competitive, efficient, and equitable economy with a harmonious society requires good governance and efficient public administration, supported by resilient public and private institutions. A government that is to efficiently deliver public services, guided by prudent and sound budgeting principles, needs to implement both hard and soft infrastructure programmes, a prerequisite for creating and redistributing wealth. Furthermore, in macroeconomic dynamics, a fine calibration between external and domestic demand requires the economy to be constantly refashioned in order to stay relevant. Such was the wisdom of Singapore’s founding father, Lee Kuan Yew.

9.2 The Neighbourhood Demonstration Effect

Regions need countries with a developmental success story to serve as role models for their neighbours. At the turn of the twentieth century in East Asia, Japan was such a role model.
During the Meiji Restoration period, Japan developed and modernized rapidly, economically as well as socially, both through local innovation and by utilizing technologies from more developed countries in Europe. After the Second World War, neighbouring economies like South Korea, Taiwan, and Singapore acquired ideas and technologies, as well as a psychological boost, from Japan, enabling them to achieve developed status.

In November 1978, senior vice-premier of the People’s Republic of China Deng Xiaoping made his first official visit to Singapore, where he met with Lee Kuan Yew and was shown the country’s Housing Development Board and the Jurong Town Corporation. Shortly after returning to Beijing, Deng began to spearhead reforms which ushered in more than thirty years of rapid economic growth for China. While there are no official records of their meetings, this piece of history was re-enacted in a state-sanctioned TV drama released in China (see Long et al., 2014). In the series, Lee remarks that China is in a better position than Singapore to develop because of its ‘progeny of scholars, mandarins, and literati’, to which Deng responds, ‘you’re right [;] there is no reason for China’s economy to be lagging behind’.

The notion of demonstration effect within a region can be put into the African context. In the 2000s, Africa was described by some as the ‘hopeless continent’; by 2011, it was more widely recognized as ‘rising and aspiring Africa’. According to the International Monetary Fund’s (IMF) World Economic Outlook in 2018, Ethiopia is among the fastest-growing economies in its region. If Ethiopia develops economically and socially in accordance with this growth, the country could be recognized as a pioneer in the development of sub-Saharan Africa. Just as Meiji Japan played a leading role in the development of East Asia, Ethiopia is in a unique position to lead region-wide confidence in Africa’s development: it is one of only two countries in the continent not colonized, with a long and illustrious history and culture.

The chapter is organized as follows. The first section briefly discusses East Asian development experience, before considering in detail the role of the Singapore government in formulating pragmatic public policies and planning longer-term development. Strategic steps towards industrial upgrading and longer-term economic transformation to plug Singapore into the global trading system are then highlighted, followed by analysis of successful and less successful case studies of industry cluster development. The chapter concludes with a look at the Singapore government’s updates on its strategic economic roadmaps, with relevant lessons for developing countries.

The East Asian experience shows that an export-oriented strategy of releasing production capacity through comprehensive planned investment to resolve infrastructure underdevelopment is not only a prerequisite for economic take-off but also a useful support in navigating through the middle-income trap (see Tan et al., 2014). For balanced, sustainable, inclusive regional economic integration and
social development, provision of both physical and soft infrastructure for greater connectivity is increasingly viewed as a regional public good. Most developing countries, including those from the African continent, however, tend to have weak budgetary conditions. Due to the relatively large capital requirements, the long gestation period, and the longer-term nature of returns on investment for infrastructure projects, the cost of financing tends to be high, and competition with other funding commitments keen, resulting in financing constraints.

In the longer-term roadmap for Africa, it is the stronger economies with comparative advantages that should seek to overcome the infrastructure bottleneck that is causing growth inertia and unbalanced regional development. Emerging economies with an abundant supply of low-cost unskilled labour and adequate financing for infrastructure development through public–private partnerships could bring about a reshuffling of global production networks, achieving significant poverty reduction and improved standards of living for the majority. Effective leadership and good governance will be paramount in harnessing and promoting infrastructure investment.

9.3 Singapore’s Track Record: Strong Budgetary Discipline and an Enabling Efficient Civil Service

Two prime attributes are critical to the successful development of any economy: prudent and sustainable budgetary discipline capable of financing strategic economic policies and social development initiatives; and effective leadership supported by an enabling, efficient civil service (see Tan et al., 2015).

The emergence of Singapore as a modern developed city state is partly a historical accident but also owes much to the effective leadership which enabled the economy to thrive under challenging circumstances. Five fundamental principles were recognized by the government as essential to the process of nation building. Hence Singapore’s achievements to date are by and large due to the facilitating role of the government—which paradoxically is inconsistent with the highly open and globalized city-state economy. The five basic principles are as follows:

1. Singapore will always be more rather than less dependent on external demand, given her small size and limited scope for domestic demand. Thus policies to stimulate domestic demand are likely to be ineffective. The pragmatic approach is to sharpen competitive edge, and build human resource capability and infrastructure capacity to capture and attract external demand.

2. With no natural resource endowment Singapore’s only resources are financial and human capitals. Hence continuing wealth accumulation and recruitment of foreign experts are keys to its continued success. Sound and sustainable
budgetary policies thus become the *sine qua non* for creation of government surpluses. Sensitive employment policies providing an appropriate local–foreign workforce mix are vital for continued growth, innovation, equitable social distribution, and stability.

3. While efficiencies can be introduced in education, health care, housing, land use, transportation, water, and electricity supply, these will become increasingly costly without subsidies. Policy subsidies should therefore distinguish target groups and potential benefactors, and should recognize the longer-term financial burden and sustainability.

4. With intensified global competition, trade protectionism, and the disruptive changes caused by digitalization and technological innovation, Singapore has been going through transformational change in an era of growth discontinuity since the 1997 Asian financial crisis and continues to experience rapid economic restructuring. Given widening income gaps and an ageing population, public policy for social mobility and wider social integration needs to take into account the potential fiscal burden of the high dependency ratio.

5. The increasingly uncertain global environment makes ‘picking winners’ far more difficult than it used to be. The government’s new facilitating role in industrial policy instead promotes ‘hosting winners’. This requires greater financial resources and a lean and nimble, more transparent and accountable government responsive to closer domestic and international scrutiny.

9.4 Prudent and Sustainable Budgeting

Singapore has adopted a ‘workfare’ principle under which the government subsidizes the difference between current wage and defined living wage for the unskilled indigenous workforce through the Workfare Income Supplement (WIS) scheme, instead of a conventional welfare system of entitlement to unemployment benefits.

While ensuring that public services such as housing, health care, education, and transport remain efficient and affordable, this principle increases the international competitiveness and productivity of the workforce by directing resources to skills training, industrial internships, and updating the education curriculum rather than to welfare spending for the unemployed.

Table 9.1 shows the trends in Singapore’s budgetary structure from 1998 to 2018. The primary budget surplus begun to fall in 1999 and a primary budget deficit has developed since 2002 during the years of slow and low economic growth, although the duration and scale of structural deficits are relatively mild. Faster-than-expected economic restructuring following the 1997 financial crisis significantly altered costs structure and potential output, and competition from emerging global economies has been stronger than expected.
Singapore does not follow the conventional IMF budgetary accounting system but adopts a conservative system whereby development expenditure is included as part of total operating expenditure. Revenue from state land sales and returns from the state’s investment abroad are both excluded from total operating revenue. From 2000 to 2018, government spending on cash handouts such as New Singapore Shares, Economic Restructuring Shares, cash top-ups on Central Provident Funds, skills development fund, utilities rebates, subsidies, and workfare averaged US$2.3 billion per year (excluding top-ups to endowment and trust funds). This was largely buffered by contributions from net investment income (NII), which amounted to an average of US$6.7 billion per year over the same period, but has since more than doubled to US$15 billion per year from 2016 and 2018.

Singapore’s budgetary philosophy has always been to have a balanced budget, on average, over the business cycle, with surplus accumulated during good years and deficit incurred during not-so-good years. It has become the norm for the budget to be supplemented by NII, a timely dividend resulting from early decades

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary surplus (deficit)*</th>
<th>Special transfers</th>
<th>NII contributions</th>
<th>Overall budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY1998</td>
<td>977</td>
<td>52</td>
<td>–</td>
<td>925</td>
</tr>
<tr>
<td>FY1999</td>
<td>5,566</td>
<td>682</td>
<td>–</td>
<td>4,885</td>
</tr>
<tr>
<td>FY2000</td>
<td>3,531</td>
<td>1,835</td>
<td>2,287</td>
<td>3,983</td>
</tr>
<tr>
<td>FY2001</td>
<td>1,190</td>
<td>5,264</td>
<td>1,375</td>
<td>(2,698)</td>
</tr>
<tr>
<td>FY2002</td>
<td>(1,683)</td>
<td>1,802</td>
<td>3,675</td>
<td>191</td>
</tr>
<tr>
<td>FY2003</td>
<td>(3,184)</td>
<td>603</td>
<td>1,900</td>
<td>(1,887)</td>
</tr>
<tr>
<td>FY2004</td>
<td>(1,487)</td>
<td>1,661</td>
<td>3,043</td>
<td>(105)</td>
</tr>
<tr>
<td>FY2005</td>
<td>(463)</td>
<td>829</td>
<td>2,777</td>
<td>1,486</td>
</tr>
<tr>
<td>FY2006</td>
<td>(549)</td>
<td>3,580</td>
<td>2,845</td>
<td>(1,284)</td>
</tr>
<tr>
<td>FY2007</td>
<td>(639)</td>
<td>2,071</td>
<td>2,019</td>
<td>(691)</td>
</tr>
<tr>
<td>FY2008</td>
<td>1,600</td>
<td>4,390</td>
<td>3,650</td>
<td>(2,150)</td>
</tr>
<tr>
<td>FY2009</td>
<td>(2,344)</td>
<td>4,071</td>
<td>7,006</td>
<td>(819)</td>
</tr>
<tr>
<td>FY2010</td>
<td>722</td>
<td>1,505</td>
<td>7,352</td>
<td>980</td>
</tr>
<tr>
<td>FY2011</td>
<td>4,514</td>
<td>2,909</td>
<td>7,916</td>
<td>4,003</td>
</tr>
<tr>
<td>FY2012</td>
<td>6,811</td>
<td>1,458</td>
<td>7,870</td>
<td>5,821</td>
</tr>
<tr>
<td>FY2013</td>
<td>5,292</td>
<td>2,990</td>
<td>8,289</td>
<td>4,988</td>
</tr>
<tr>
<td>FY2014</td>
<td>4,151</td>
<td>4,330</td>
<td>8,553</td>
<td>(125)</td>
</tr>
<tr>
<td>FY2015</td>
<td>(4,250)</td>
<td>4,540</td>
<td>9,900</td>
<td>(4,880)</td>
</tr>
<tr>
<td>FY2016</td>
<td>(2,720)</td>
<td>2,870</td>
<td>14,370</td>
<td>5,180</td>
</tr>
<tr>
<td>FY2017</td>
<td>1,240</td>
<td>2,220</td>
<td>14,610</td>
<td>9,61</td>
</tr>
<tr>
<td>FY2018**</td>
<td>(7.34)</td>
<td>1.810</td>
<td>15.850</td>
<td>(0.60)</td>
</tr>
</tbody>
</table>

Note: Overall budgetary surplus (deficit) in US$ million = primary position + special transfers + NII contributions; *primary budgetary surplus (deficits) in US$ million; **estimated.

of prudent surplus accumulation and investment. NII will help Singapore to put in place further measures to strengthen its competitive tax structure, meet possible increases in spending on defense, social needs, health care, and employment support, and cope with its ageing population.

In the longer term, to build an even more inclusive society, there are only two ways to deal with the potential structural budget deficit. The first option is a ‘red ocean’ strategy of cutting government expenditure or/and raising taxes for short-term budgetary improvements with marginal financial impacts but longer-term consequences necessarily involving trade-offs. Governments of developing economies often do not have the strong discipline and political will to undertake such painful austerity measures, which gives rise to development inertia caused by financing, infrastructure, and production bottlenecks that exacerbate the vicious cycle of severe structural budget deficit or sometimes insolvency.

With its move into the knowledge-based economy in the new millennium, Singapore adopted the alternative ‘blue ocean’ strategy: drive for business innovation and transformation; deepen manpower skill sets; and strengthen global trade and investment partnerships with further internationalization of economic activities. This is reflected in the annual budget statements since 2016 when Industry Transformation Maps were first introduced. In the final analysis, having a period of robust and consistent economic growth is the best way to ensure sufficient financial resources and hence the government’s commitment to an even more inclusive society.

The second approach to volatile and declining government revenues and expectations of a hike in public spending is broadening the tax base. The global trend of lowering indirect taxes such as corporation tax (CIT) and personal income tax (PIT), together with a more broad-based hike in taxes on direct goods and services (GST), is an integral part of government revenue reforms to ensure a broader and a less cyclical tax base which tends to be outstripped by rising public and social expenditures.

Raising GST, or value added tax (VAT) as it is sometimes termed, alone is clearly regressive since the additional amount of GST, however small, would be a much heavier burden on lower-than on higher-income groups and SMEs. However, the package of tax reforms adopted by the Singapore government in April 1994, which raised GST while also lowering PIT or/and CIT, was progressive because of the extensive and more than one-off GST offsets involving government subsidies and rebates. The ultimate objective was to render the economy more vibrant and competitive, with the economic cake growing over time and everyone benefiting. Developing countries can learn pertinent lessons from the prudent, sustainable budgetary philosophy as follows:

a. Economic restructuring can have a profound impact on public finance, and is thus a necessary but not a sufficient condition for structural budgetary
deicit. Given this condition, external shocks or business cycles may trigger a prolonged structural deicit.

b. The instability of government revenue streams can be exacerbated by overheating in one particular sector of the economy, such as bubbles in the property or equity market or both.

c. ‘Institutionalized’ public spending can hamper economic initiatives and social development plans unless there are fiscal buffers from other sources of investment income derived from accumulated government surpluses.

d. The unpredictability of budgetary conditions underlines the importance of grappling with the budgetary process. It may be useful to lessen the budget burden by outsourcing some social/public services.

e. From the perspective of inter-generational budgetary consideration, it may be critical to avoid the ‘spend now and pay later’ syndrome and adopt a more responsible ‘spend more now and enjoy the pay-off later’ paradigm.

f. There should be serious effort to build up or even institutionalize contingency budgetary resources as a hedge against uncertainty and external shocks, due to lack of continuity in government.

Politically, this restructuring may undermine the support of voters who are not prepared to swallow the bitter pill of painful tax reforms. The longstanding political style of the Singapore government, still relevant today, can be found in the classic speech by Minister Mentor Lee Kuan Yew at the 2005 Global Branding Forum:

I do not believe that popular government means you have to be popular when you govern. I think the best thing to do is to do all the unpopular things when you are governing so that at the end of your term, you have a choice of a date when you feel that they will be most grateful that you have done all these unpopular things and they vote for you.

9.5 The Enabling, Efficient Public Sector and the Art of Public Policy Management

There is no doubt that the prime movers of the Singapore miracle were the nation’s visionary and transformational leaders. However, the major institutional vehicle delivering national outcomes was the powerful civil service which prepared development plans, coordinated their implementation, and delivered public services efficiently.

Policies are designed for the long-term good, not short-term populism. This requires strong leadership with a vision and clear direction for the country. The watchwords for policy are flexibility and pragmatic anticipation of change.
Government is regarded as a trusteeship rather than an agency of special interest. Good governance in Singapore is built on three interrelated factors: accountability and transparency, long-term planning, and social justice. For that, a powerful, honest, and efficient civil service is critical.

In a comparison of how talent is selected in Malaysia, Thailand, and Singapore, Poochaoren and Lee (2013) find that Singapore’s process of identifying able civil servants is highly selective. The main selection principles are to get the best people, give them a challenge, and pay them well. Candidates are selected by academic results, with ministries often approaching junior colleges and universities for lists of top students. Candidates are also given psychometric tests to determine their suitability for the civil service.

There are also different streams of public service recruitment, including Administrative Service and High Potential (HiPo) programmes singling out those with potential to become administrative officers (AOs) or assume other leadership roles. Within these programmes, there are reporting and ranking systems with a quota-based bell curve designed to incentivize civil servants to work harder. The result is a clear, defined career path for candidates which ensures them a competitive salary. The downside to this system is the potential for an ‘us and them’ mentality between those deemed to be talented and those who are not. For example, the selection of candidates for HiPo programme is not transparent, while AOs are given a slight preference in the ranking system. Poochaoren and Lee (2013) warns that this might breed cynicism and complacency in the talented and resentment in those who are not.

Singapore’s approach to change in public service is described in ‘Public Service for the 21st Century: Being in Time for the Future’, known as PS21, which has three pillars: to anticipate, welcome, and execute change (see Civil Service College, 2015). The objectives of PS21 are first, to nurture an attitude of service excellence, anticipating and meeting the needs of the public with high standards of quality and courtesy. The essence of anticipating change is scenario planning with alternative possible views of the future. Ideally civil servants should identify driving forces and define critical uncertainties by dealing with known knowns, known unknowns, and unknown knowns, but not with unknown unknowns.

Second, to foster an environment which induces and welcome continuous change for greater efficiency, convincing public officials of the need for change before it becomes critical: evolution in execution yielding a revolution in results. It is crucial to mould public officials’ attitudes so as to ensure everyone is an activist for change. These high expectations require leadership, conviction, commitment, and tenacity in seeing through execution.

Third, to formulate and execute public policies cost-effectively by employing modern management tools and techniques, while considering the morale and welfare of public civil servants. Successful management of the civil service requires organizational excellence which must be both people and system oriented.
Citizens must therefore be regarded as customers of multiple agencies under the administration of a single government.

PS21 is a programme about change, not change to a specific final state but change as a permanent state. The thrust is to see change as a superior and necessary way of life and as an instrument for improvement and advancement. The idea is that any organization that effects change only in reaction to circumstances becomes the slave of circumstances, doomed to running around making urgent change after urgent change because it allows circumstances to catch up with it.

PS21 contains strategic imperatives encompassing continuous operational improvement, openness to continuous change, confidence about uncertainty, and superior leadership. These are summarized in Figure 9.1.

Appropriate incentives must be in place for civil servants if effective and efficient provision of public services are to be assured. The bottom line of a company is the profit margin. For the Singapore government, public officials’ key performance indicator is linked to GDP growth, which also takes into account events beyond the government’s control. This business-oriented mind-set and ‘Singapore Incorporated’ culture help to attract investment resulting in job creation. Figure 9.2 shows a typical bonus announcement for civil servants in 2017.

### 9.6 Public Policy Formulations Pioneered by the Old Guard

Singapore has successfully transformed itself from the third to the first world within a few decades. This achievement can be attributed to the public policy formulation pioneered by the country’s old guard under the leadership of Lee Kuan Yew, which can be summarized in the following five tenets.
9.6.1 Pragmatism in Public Policy Formulation—No Reliance on Textbook Cases

Pragmatism is the hallmark of Singapore’s unique and innovative policy initiatives. Pragmatism is more than simply being practical; it requires strong adherence to governing with integrity and principles. The affordability of the asset-enhancing public housing scheme through the Housing Development Board (HDB), and the unique Central Provident Fund (CPF) contribution system are examples of pragmatism in policymaking leading to innovation in its formulation.

9.6.1.1 Case Study: Public Housing, Asset Ownership, and Social-political Stability

During one of the frequent riots of the 1960s caused by high unemployment and social tension, Prime Minister Lee Kuan Yew was inspired by the sight of a resident rushing down from his apartment to carry his battered motorbike upstairs to determine that every citizen should have a stake in the stability of the country, this to be achieved by giving them a job and forcing them to save to buy a government-built flat.

Thus a series of highly innovative and interrelated public policies were conceived and implemented. Industrialization created jobs, generated income, and enforced savings. Social stability was restored with a virtuous cycle of economic prosperity, employment, rising standards of living, and improved quality of life for
the majority. The CPF and HDB were set up as statutory boards linking citizens’ asset ownership to the economy as a stake in the homeland. In 2018, 92 per cent of the population live in this accommodation, with 85 per cent owning their home. Public housing consists of housing estates, which are self-contained satellite towns with schools, supermarkets, clinics, and sports and recreational facilities. There are many different types of flat catering for various housing budgets. HDB flats were built primarily to provide affordable housing for the poor and assisted purchase is available through the CPF.

9.6.2 Industrial Upgrading to Connect Singapore to the Global Trading System

The top priority during the early days of nation building was to reinforce Singapore’s strategic location as a regional hub for international trade and services, projecting the republic as a cosmopolitan city state. Faced with limited financial resources after independence, the government prioritized education, concentrating on raising the quality of teaching rather than large-scale expansion of schools or heavy investment in airports and seaports promoting global economic connectivity. Singapore’s successful industrial transformation has made it an international hub for world-class financial, aviation, maritime, logistics, and telecommunication and education services.

9.6.2.1 Case Study: Strategic Industrial Upgrading towards a Knowledge-based Economy

In the five decades since political independence in 1965, Singapore has achieved one of the highest rates of economic growth among newly industrialized economies (NIEs). This rapid growth was initially driven by a strategy that leveraged foreign direct investment (FDI). As Singapore’s factor costs, especially of land and labour, rose in tandem with rapid economic growth, the government made a concerted effort in the 1990s to shift its policy focus, transforming Singapore from an investment-driven to a knowledge-based economy (see Figure 9.3). This policy shift emphasizes the building of intellectual capital and a vibrant entrepreneurial culture to create value and jobs.

When Singapore separated from Malaysia to gain independence in 1965, the challenge was to develop an economy despite having a small market and no hinterland to rely on. The Economic Development Board (EDB), established in 1961, focused on protectionist policies geared towards a more labour-intensive economy, supported by labour unions who believed that equipment-intensive and innovative industries were worse for workers. However, through legislation such as the Employment Act, the government gave more power to managers and restricted the power of the unions.
In the 1970s, the government removed many tariff restrictions, seeking to promote a more export-oriented economy and attract more MNCs to invest in Singapore. Indigenous firms also lacked productivity measures. FDI-friendly policies placing MNCs at the centre of economic and industrial development enabled a decade of double-digit growth. The EDB then sought to attract foreign and local entrepreneurs to encourage cooperation as well as healthy competition. Singaporeans were sent to the United States, Europe, and Japan to gain technological and technical expertise. The Ministry for Trade and Industry (MTI) set up organizations and statutory boards as spin-offs from EDB specializing in economic and financial activities (see Table 9.2; Republic of Singapore, 1960–2011).

An important industrialization success story relevant for other developing countries is the role of MNCs in helping to develop local industries, domestic entrepreneurs, and the professional class (see Wong, 2008). Several EDB–MNC joint training centres were set up to ensure the availability of skilled workers, including those with Rollei of Germany (optics and precision mechanics) and Philips of Holland (precision machining) in 1973 and 1975 respectively. Workers spent two years at the centre and two years being trained at the plant. Nurturing local supporting industries (LSIs) included support, improving capabilities, and
facilitating technology transfer to indigenous SMEs. This was a win–win formula for attracting and retaining MNCs, as it helped to lower costs of parts and components, and allowed MNCs to concentrate on final assembly and testing of finished products. An example of the EDB’s work under the Local Industry Upgrading Programme (LIUP) is shown in Figure 9.4.

In 1980s, the EDB set out to attract high-tech industries. Mechanization, automation, and computerization required more specialized skills, technical know-how, and production technology. Between 1979 and 1982, EDB set up three Institutes of Technology (ITs) with foreign partners: Japanese-Singapore Institute of Mechatronics, German-Singapore Institute of Production Technology; and French-Singapore Institute of Electro-Technology. They ran three-year courses for diploma-level graduates and four-year skills and craftsman certificate courses. Short courses were provided for supporting electronics industries to enable MNCs to outsource parts- and manufacturing-related services such as moulded stamped parts, surface finishing, printed circuit boards, sub-assembly and testing, tools and die, cartons and packaging, transportation, warehousing, and logistics.

In addition to its consistent upgrading of skillsets and diversification of the economy base, Singapore has coordinated and consolidated a number of different agencies. For example, the EDB attracts investment into Singapore; International Enterprise (IE) Singapore promotes the growth of Singapore-based corporations overseas to smooth the path of international trade; and SPRING Singapore oversees the healthy expansion of small and medium enterprises. On the other hand, Jurong Town Council (JTC) encourages the vigorous growth of the industrial landscape through the development of land and resources, while organizations such as A*Star are centred around high-end science and technology research.

<table>
<thead>
<tr>
<th>Year</th>
<th>Spin-off</th>
<th>Type</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>Singapore Institute of Management</td>
<td>Non-profit organization</td>
<td>Management training</td>
</tr>
<tr>
<td>1968</td>
<td>Development Bank of Singapore</td>
<td>Publicly listed company</td>
<td>Banking</td>
</tr>
<tr>
<td>1968</td>
<td>Jurong Town Council</td>
<td>Statutory board</td>
<td>Industrial estates</td>
</tr>
<tr>
<td>1968</td>
<td>Intraco Limited</td>
<td>Government-linked company</td>
<td>Trading</td>
</tr>
<tr>
<td>1968</td>
<td>Engineering Industry Development Agency</td>
<td>Non-profit organization</td>
<td>Industrial services</td>
</tr>
<tr>
<td>1972</td>
<td>National Productivity Board</td>
<td>Statutory board</td>
<td>Productivity matters</td>
</tr>
<tr>
<td>1973</td>
<td>Singapore Institute of Standards and Statutory board</td>
<td>Industrial standards</td>
<td>Industrial Research</td>
</tr>
</tbody>
</table>

The Ministry for Trade and Industry holds monthly ministerial meetings to coordinate overall policies and economic strategies based on regular input from all the various agencies including EDB, IE Singapore, JTC, A*Star, and SPRING Singapore.

Singapore Polytechnic and Ngee Ann Polytechnic were among the early pioneers offering three-year diploma courses in sciences and engineering which became an incubator for indigenous business entrepreneurs such as Wong Ngit Liong, who founded the billion-dollar Venture Manufacturing, and a professional training ground for indigenous managers such as Koh Boon Hwee, who later became chairman of Singapore Airlines. The success of Singapore’s committed industrial upgrading can be seen in the near twenty-fold growth of GDP and double-digit sectoral growth summarized in Table 9.3.

9.6.3 Long-term Planning for an Inclusive, Productive, Environmentally Friendly, and Socially Harmonious Cosmopolitan Singapore

As one of the world’s most densely populated countries with a multi-racial, multi-religious, multi-cultural, and multi-lingual population of 5.6 million, Singapore’s public policies were aimed at an inclusive society from the start of the nation
building process. Given its small geographical area of 720km² and lack of natural resources, development policies which maximize land-use value and are inclusive, productive, environmentally sustainable, and socially harmonious are paramount.

Even highly developed economies, however, are today facing worsening income inequality. Although this is frequently said to be an inevitable outcome of globalization, many, including Professor Jagdish Bhagwati and Ben Bernanke, former chairman of the US Federal Reserve, argue that it is the rapid skill-biased technological change rather than the globalization process itself which is causing most of the disparity.

The fundamental social equalizers of education, innovation, and entrepreneurship are critical for an inclusive and productive society. Thus a prolonged period of social stability is an overwhelming priority, without which upward social mobility and a meritocracy-based society cannot prevail. The ultimate solution to worsening income disparity is not state handouts, rebates, or subsidies. Creative policy measures and human resource management are needed that ensure decent-paying jobs and retraining for the lowest-earning 20 per cent of society. As Singapore has moved up the technological ladder to meet the challenge of the new economy, the urgent need to recalibrate the skillset of the indigenous workforce has prompted a restructuring of higher education with the addition of entrepreneurial and industry-relevant dimensions.

Until the end of the 1990s, the National University of Singapore (NUS) followed the traditional British university model with teaching as the primary mission and research as a secondary function, and limited linkages between academia and industry. The major impetus for change came in the late 1990s. Economic slowdown precipitated by the Asian financial crisis led to growing recognition by policymakers of the need to increase the entrepreneurial dynamism

Table 9.3 Contributions to Singapore’s GDP by sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP at constant 2005 prices at end of period ($ million)</td>
<td>6,863</td>
<td>16,567</td>
<td>39,229</td>
<td>82,659</td>
<td>165,245</td>
<td>299,625</td>
</tr>
<tr>
<td>Average growth pa (%)</td>
<td>9.3</td>
<td>9</td>
<td>7.8</td>
<td>7.2</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Manufacturing (%)</td>
<td>13.8</td>
<td>11.1</td>
<td>7.3</td>
<td>7.5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Construction (%)</td>
<td>16.7</td>
<td>6.4</td>
<td>5.3</td>
<td>10.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Services (%)</td>
<td>7.6</td>
<td>8.5</td>
<td>7.9</td>
<td>7.5</td>
<td>5.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Share in GDP (at end of period)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing (%)</td>
<td>15.2</td>
<td>22.8</td>
<td>27.4</td>
<td>26.3</td>
<td>25.7</td>
<td>27.1</td>
</tr>
<tr>
<td>Construction (%)</td>
<td>4.3</td>
<td>8.2</td>
<td>6.2</td>
<td>4.3</td>
<td>5.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Services (%)</td>
<td>80.5</td>
<td>69</td>
<td>66.3</td>
<td>69.6</td>
<td>68.6</td>
<td>69.1</td>
</tr>
</tbody>
</table>

of economy. In a speech in August 2002, Dr Tony Tan Keng Yam, deputy prime minister and minister for defence, stated:

The three primary roles which a world-class university should play in a modern economy and society [are]: i. delivering quality undergraduate education; ii developing graduate education and research; and iii fostering entrepreneurship and industry involvement.

The Singapore government has since embarked on the path of upgrading tertiary education to match the modern economy comparable to those world-class academic institutions prevailing in the west. Tertiary education would now gear toward post-graduate studies with strong emphasis on scientific research. Most of all, the academic curriculum of local universities would now place emphasis on being industry relevant and aiming to produce entrepreneurs who are well versed in the latest technology developments.

With strong support from top political leadership, NUS appointed a new vice chancellor with research leadership experience at leading US universities and corporate experience at a major US corporation. Subsequently highly distinguished and experienced academics from the United States and Europe were appointed vice chancellors at other universities including Nanyang Technological University, Singapore Management University, and Singapore University of Technology and Design.

9.6.4 Planning for a Comprehensive Long-term Vision

The Urban Redevelopment Authority (URA) undertakes long-term planning but its Singapore Urban Development Plan (SUDP) is an example of its ability to actively respond to change. SUDP plots national land allocation for the long term while meeting national needs in the short term, with land allocated to sectors that need it the most following detailed revisions of the Master Plan (see Figure 9.5).

Figure 9.6 shows the structure and function of URA with its mission ‘to make Singapore a great city to live, work and play in’. Competing land requirements of housing, commerce, industry, airport, seaport, green parks, water treatment and storage require long-term planning. However addressing short-term needs calls for inter-agency discussion and coordination between agencies including the Singapore Land Authority, National Parks Board, Singapore Tourism Promotion Board, Land Transport Authority, Civil Aviation Authority of Singapore, Maritime Port Authority, Public Utilities Board, Business Chamber of Commerce, and Trade Councils.

Singapore takes a sustainable approach to development which relies on a robust system of good governance, a pragmatic sense of environmentalism, and lastly, a balanced approach to growth and national interests. Figure 9.7 provides an overview
Figure 9.5 Singapore Urban Development Plan: A comprehensive long-term vision

Source: Urban Redevelopment Authority, 'Singapore Urban Development Plan'
URA–Singapore’s National Planning Authority

To make Singapore a great city to live, work and play in

Figure 9.6 Structure and functions of the Singapore Urban Redevelopment Authority
Source: Urban Redevelopment Authority, 'Singapore Urban Development Plan'

Planning Framework

<table>
<thead>
<tr>
<th>Concept Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Broad strategies for the next 40–50 years</td>
</tr>
<tr>
<td>* Reviewed every 10 years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Master Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Detailed plans for the next 10–15 years</td>
</tr>
<tr>
<td>* Reviewed every 5 years</td>
</tr>
<tr>
<td>* A guiding plan, actual pace of development will depend on market demand</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Land Sales &amp; Development Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Implementation</td>
</tr>
</tbody>
</table>

Figure 9.7 Planning framework of the Singapore Urban Redevelopment Authority
Source: Urban Redevelopment Authority, 'Singapore Urban Development Plan'
of URA’s strategic planning framework. The long-term Concept Plan is reviewed every decade and adjusted to suit the national interest. The Master Plan has a detailed medium-term plan for the next ten to fifteen years. A Guiding Plan monitors the actual pace of development based on market demand.

9.6.5 Zero Tolerance of Corruption

Studies by the World Economic Forum and Transparency International have shown a negative correlation between corruption perception and economic competitiveness and attractiveness to foreign direct investment. World Governance Indicators by the World Bank Group have also concluded that political stability is positively related to absence of corruption. A study by Transparency International closely linked corruption with state failure. Singapore continually tops the rankings for being among the least corrupt countries in the world. A strict zero tolerance of corruption, from financial rewards to exchanging power for favours, has been the bedrock of the country’s effective public policy formulation and its efficient implementation.

However, as a former colony, Singapore was rife with corruption in its early days. A British-commissioned report found three main reasons: low salaries for public officials, ample opportunities for corruption, and low risk of detection and punishment for corrupt practices (see Quah, 2001, 2017). These factors still prevail in many developing countries. Instability caused by historical and ongoing civil strife or even natural disasters provides scope for corruption. The ‘natural resource curse’ of many resource-rich developing nations which creates incentives for bribery is another factor. Landlocked countries may have rampant corruption among customs and border officials.

There are three ways to combat corruption. First, strengthening existing anti-corruption mechanisms. This is not feasible for many developing nations because they do not have a strong enough base from which to expand. Second, multiple government anti-corruption agencies (ACAs) that can tackle different types of corruption. Again, this is not recommended because it would create multiple underfunded ACAs competing with each other for resources. Third, as suggested in the literature, a single independent ACA, such as Singapore’s Corruption Practices Investigation Bureau (CPIB). Key features of successful ACAs include independence of political whims and police jurisdiction, an effective ACA should be chaired by incorruptible and competent staff. The most important factor enabling an ACA to properly do its job is a conducive environment created by strong political and public support as well as comprehensive anti-corruption laws.

When Singapore took over from the British colonial government, corruption was rife. Prevention was weak: public officials were poorly paid. The population
was less well educated and, ignorant of their rights, often resorted to bribery to get things done. The CPIB, founded in 1952 even before Singapore gained independence from the British, is one of the oldest agencies in the world dedicated to handling corruption matters. It works directly under the Prime Minister’s Office, and if the prime minister refuses to sign off on an investigation, the CPIB can go to the president instead.

There are four main pillars to Singapore’s culture of anti-corruption: effective and all-encompassing anti-corruption legislation; an effective independent ACA; a system that punishes corrupt practices adequately; and efficient government administration (see Figure 9.8). Political will is a key ingredient as it forms that all-important sub-structure upon which all the superstructures of anti-corruption work rest. It provides the soil and the nutrients which allows the seeds of anti-corruption work to germinate and grow. The government has matched its words with deeds as it has mobilized the public and the entire civil service to fight corruption.

Government departments that are prone to corruption, such as police or customs, have their procedures periodically audited to ensure fewer opportunities for corruption. CPIB also can investigate corruption in private enterprises. Through its policy of keeping public-sector jobs economically competitive, the government is able to hire and keep professional staff for the CPIB as well as reduce the chance of other public-sector workers resorting to corruption.

**Figure 9.8** Anti-corruption framework in Singapore

*Source:* Quah (2001)
9.7 Preserving a Democratic Electoral System Allowing for Checks and Balances

Singapore’s parliamentary democracy has three pillars: legislation by parliament; governing by the government; and jurisdiction by the courts.

Legislation. Parliament consists of eighty-seven constituency MPs, with a maximum of nine non-constituency (NCMPs) and about nine nominated (NMPs) (see Figure 9.9). Parliament is dissolved and a general election (GE) held every five years. In accordance with legislation passed in 1984, after a general election NCMPs are picked from the highest-polling losing opposition party candidates. Further legislation in 1990 provided for NMPs to be nominated by the Parliamentary Nomination Committee, approved by parliament, and to serve a two-year term.

Government. Following a general election, the president of Singapore appoints the MP who has the majority support of his fellow MPs as prime minister (PM), and on the PM’s recommendation other cabinet ministers (CMs) and ministers of state (MOSs) are appointed. The PM, CMs and MOSs are in charge of the various government ministries and collectively report to parliament. The independent Public Services Commission appoints civil servants.

Jurisdiction. The Supreme Court consist of the High Court and Court of Appeal and subordinate courts are district and magistrates courts. The chief justice and high court judges are appointed by the president on the PM’s recommendation. Magistrates are appointed by the Legal Service Commission.

The president of Singapore is the supreme head of state and is elected by the citizens of Singapore. The presidential candidate must be a citizen aged 45 or above, not an MP and not belonging to any political party, must have held a significant position in the public or private sector and be of high moral and good social standing. The president normally takes the advice or recommendations of the PM. However, he can act independently in accepting a motion to dissolve parliament, accepting nominations to high positions as required by the constitution, and in proposals to deploy the government’s reserves or surpluses.

Fifty years of political milestones for the People’s Action Party (PAP) can be summarized as follows. During 1954–9, the old guard was leading the anti-colonial movement. From 1959 to 1963, PAP went through internal party struggles and conflict. Singapore became part of Malaysia and PAP advocated anti-racial politics from 1963 to 1965. Singapore was expelled from Malaysia and became an independent city state in 1965. PAP was elected as the governing party with a two-thirds majority through nine general elections held every five years from 1968 to 2015.

The PAP has the following prime objectives in government: ensuring political stability; delivering robust economic development through meritocracy with
Figure 9.9 Singapore’s constituencies in the 2011 general election

social mobility; promoting the national interest; forging a united, inclusive, and harmonious community; and cultivating national identity. The guiding principle of national development is the starting point and ultimate end of policy formulation. The PAP won a landslide victory at the 2001 general election which was held soon after the September 2001 terrorist attacks and the collapse of the US tech bubble. In times of crisis, Singaporeans turn instinctively to the trusted hands of the PAP. Ten years later, the 2011 general election was a political watershed for the PAP, which scored only 60.1 per cent of the popular vote, down 15 per cent from ten years previously, and losing five parliamentary seats in a Group Representative Constituency (GPC) and two parliamentary seats in Single Representative Constituencies (SRCs) (see Table 9.4). While GDP growth has been quite respectable over the last ten years, satisfaction levels and confidence in the future seem rather flat, if not negative. The PAP did badly in 2011 because it was out of touch with the grass roots, and was perceived to have become arrogant and deaf to increasing unhappiness over issues such as congestion, rising house prices, and excessive reliance on foreign workers.

Over the period 2011–15, the PAP government worked hard to address the cost of living, issues of housing affordability, public transport, and health care, and significantly reduced the inflow of foreign workers. In the 2015 general election their share of the vote increased by almost ten percentage points. As of today, the ruling party is able to claim the following five significant achievements in public

<table>
<thead>
<tr>
<th>Year of election</th>
<th>No of seats won*</th>
<th>% of votes won#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>43 (51)</td>
<td>54.08%</td>
</tr>
<tr>
<td>1963</td>
<td>37 (51)</td>
<td>46.93%</td>
</tr>
<tr>
<td>1968</td>
<td>58 (58)</td>
<td>86.72%</td>
</tr>
<tr>
<td>1972</td>
<td>65 (65)</td>
<td>70.43%</td>
</tr>
<tr>
<td>1977</td>
<td>69 (69)</td>
<td>74.09%</td>
</tr>
<tr>
<td>1980</td>
<td>75 (75)</td>
<td>77.66%</td>
</tr>
<tr>
<td>1984</td>
<td>77 (79)</td>
<td>64.83%</td>
</tr>
<tr>
<td>1988</td>
<td>80 (81)</td>
<td>63.17%</td>
</tr>
<tr>
<td>1991</td>
<td>77 (81)</td>
<td>60.97%</td>
</tr>
<tr>
<td>1997</td>
<td>81 (83)</td>
<td>64.98%</td>
</tr>
<tr>
<td>2001</td>
<td>82 (84)</td>
<td>75.29%</td>
</tr>
<tr>
<td>2006</td>
<td>82 (84)</td>
<td>66.60%</td>
</tr>
<tr>
<td>2011</td>
<td>81 (87)</td>
<td>60.14%</td>
</tr>
<tr>
<td>2015</td>
<td>82 (88)</td>
<td>69.92%</td>
</tr>
</tbody>
</table>

Notes: *Number in brackets denote the total number of parliamentary seats; # % based on number of valid votes.

services, which are by no means common in many developed or developing countries. First, no Singaporean who wants to work is denied a job unless they are voluntarily unemployed. Second, no Singaporean who wants to study is denied an education because of financial constraints. Third, the majority of Singaporeans will always have a roof over their head and own it as a valuable asset. Fourth, no Singaporean who is unwell is denied basic health care and affordable medical treatment. Finally, public transportation remains affordable for the young, working adults, and senior citizens.

As Lee Kuan Yew, the founding father of Singapore, succinctly put it:

The government must be clean and efficient, be able to protect the people and to ensure every citizen is able to lead a good life and progress within a stable and disciplined society which must also be capable of ensuring a better life for future generations.

In summary, the five tenets laid down by the political old guard under the leadership of Lee Kuan Yew have underpinned Singapore’s public policy formulation for decades and have become a major part of the socio-political contract between the ruling party and the electorate. However, in the post-Lee Kuan Yew era, it is not surprising that the articulation, communication, and implementation of policy will have to take a more consultative approach by engaging in national conversations, and at times, intense debate in terms that resonate with people.

**9.8 Singapore’s Strategic Transformation to a Knowledge-Based, Innovation-Driven, and High Value-Added Economy**

To develop its industries, Singapore adopted a strategy of leveraging global and emerging multinational corporations to encourage cluster development. In particular, Singapore looked to exploit the window of opportunity in the high-tech development and globalization cycle. This strategy required strong support and planning by its ministries and statutory boards, including proactive, targeted FDI promotion policies, geographic agglomeration, and proactive investment in core infrastructure and skills. There was also an opportunity to leverage anchor firms to stimulate development of more specialized resources supporting industries and services.

**9.9 Industry Cluster Development Policies: Singapore’s MNC Leveraging Strategy**

Wong (2008) analyses two case studies—the biomedical tech sector and the offshore marine engineering cluster—of how the Singaporean government
worked to strengthen the country’s innovation base and knowledge-based industrial clusters.

The biomedical tech sector had to be built from the ground up. This involved attracting foreign talent to train and work in Singapore, developing education institutions to better train locals, international collaboration, and nurturing venture capital for firms in related sectors. In marine engineering the government sought to expand the already strong transport sector towards offshore marine engineering. The difference in strategy between the two sectors illustrates the need to take a tailored approach to developing a knowledge-based cluster that depends on the resources initially available.

Until the mid-2000s, the clusters in Singapore included electronics, computer equipment and peripherals; precision engineering; maritime (ship-building and repair, offshore engineering, port and shipping services); chemical manufacturing; semiconductor assembly and testing; and pharmaceutical manufacturing. However, from the late 2000s, emerging clusters included interactive digital media, water treatment and clean technology, biomedical devices, and life sciences. There are a number of notable examples of industry cluster development. Biopolis is a research and development centre focusing on biomedical, biotechnology, agro-biology, and engineering research. It houses several A*Star institutes and is situated close to universities, creating a technology corridor. Fusionopolis is a research and development complex that focuses on ICT research, media, broadcasting, and solutions for e-business, e-commerce, and the overall development of an intelligent city.

9.10 The Nation’s Pillars of Industrialization: Successful and Not-so-successful Case Studies

9.10.1 Case Study of a Successful Industry Cluster: Jurong Island Chemical Hub

Singapore has no oil or gas resources and limited land space. But against all the odds, it has achieved tremendous success in the petrochemical industry. Today, Singapore is the third-largest oil refining centre in the world, the largest bunkering port, one of the top three oil trading hubs in the world, and the price discovery centre of Asia’s oil trading industry.

Jurong Island Chemical Hub is today a growing chemical hub in Asia (see Figure 9.10). Its stellar success can be attributed to clever land utilization, adaptability to volatile markets, and adequate attention to safety and security. It is home to almost ninety international petroleum and chemical companies, and has contributed to investments of over US$47 billion. The hub manufactures refined and chemical products from integrated petrochemical complexes of oil majors.
Exxon Mobil and Shell, intermediate products from chemical producers such as Sumitomo & BASF, to automotive chemicals and agro-chemicals from firms such as Evonik and Solvay.

### 9.10.2 Case Study of a Not-so-successful Industry Cluster: Biomedical Sciences in Singapore

Singapore’s vision for this industry cluster is to project Singapore as a biomedical sciences hub with world-class capability across the whole value chain. The strategy adopted by Singapore included human capital, intellectual capital, and industrial capital elements, and an ethical framework (Figure 9.11).

However, the reality may be different from the vision. First, there is a limited pool of talent in Singapore to develop this sector. Second, there is intense global competition in life sciences. Other larger countries, including the United States and China, have access to financial and human capital resources that impose significant competitive pressures on small countries like Singapore to grow and develop in the life sciences industry. Finally, Singapore lacks a sufficiently large domestic market for the life sciences industry to be able to achieve a critical mass to grow and develop. These three factors have led to the lack of growth in the biomedical and life sciences sector.
In 2018, the guaranteed funding for core research activities and overheads of A*Star scientists is set to be cut by up to 20 per cent. The ten biomedical institutes and laboratories, which employ about 1,700 research scientists, engineers, and technicians, had their fixed funding cut to about 70 per cent in 2011. News of another round of cuts in fixed funding has unsettled the biomedical research community. Some scientists are considering leaving for institutes overseas.

Figure 9.12 shows the production process in biomedical sciences. Even after many years of government investment and initiatives, Singapore was not able to make a breakthrough at the first stage of basic and clinical research.

In addition, Singapore’s multi-pronged strategy included economic development via investment, recruitment of overseas talent, legal and ethical frameworks, clinical centres of excellence, extramural funding for investigator-based research, research institutes, improvement of the education system, physical infrastructure
such as Biopolis, and the development of local human resources such as scholarships for graduate and post-doctoral studies.

9.11 Singapore Government Updates to Strategic Economic Roadmaps

The Singapore Economic Committee was formed in 1985 to examine the longer-term problems and prospects of the Singapore economy, identify new growth areas, and define new strategies for promoting growth. As the Committee studied the problem, it quickly realized that it also had to address the 1985 recession which was caused largely by a slump in commodities’ prices and loss of competitiveness. The recession could not be brushed aside as a cyclical difficulty which would eventually disappear by itself. On the contrary, the recession was a manifestation of fundamental problems in the economy. These had to be corrected, with policies changed, not only to overcome the recession, but also to set the correct direction for the country’s longer-term growth. Four of the Committee’s major recommendations are of particular importance:

1. Undertake competitive and structural wage reforms.
2. Undertake competitive and structural tax reforms.
3. Upgrade business efficiency and productivity.
4. Promote service industries to diversify the economy further.

The Economic Strategies Committee was set up in 2010 to identify key recommendations on seven broad strategies to help sustain Singapore’s longer-term growth target of 3 per cent to 5 per cent over the next decade. The seven key strategies are:

1. Growing through skills and innovation.
2. Anchoring Singapore as a global Asia hub.
4. Making innovation pervasive, and strengthening commercialization of research and development.
5. Becoming a smart energy economy.
6. Enhancing land productivity to secure future growth.
7. Building a distinctive global city and an enduring home.

The Committee for the Future Economy, formed in 2017, suggests that the national workforce should have deep skills and be inspired to learn throughout their lives. Businesses should be innovative and nimble. The cosmopolitan city
should be vibrant and connected to the world by continually renewing itself. The government needs to be well coordinated, inclusive, and responsive. The committee recommended the following moves:

1. Deepen and diversify our international connections.
2. Acquire and utilize deep skills.
3. Strengthen enterprise capabilities to innovate and scale up.
4. Build strong digital capabilities.
5. Develop a vibrant and connected city of opportunity.
7. Partner each other to enable innovation and growth.

These collective efforts will allow Singapore’s economy to grow by 2–3 per cent per year on average for the next decade, exceeding the performance of most advanced economies, and becoming a value-creating economy that is open and connected to the world, offering a multitude of opportunities, with sustainable wage growth and meaningful careers for all Singaporeans. There is a rising expectation among younger voters of leadership renewal in the next general election, due by 2020 at the latest. A more uncertain global environment and protectionism in trade are to be expected. An ageing population, flagging economic dynamism, and rising health care costs are some of the more challenging circumstances that need to be better prepared for (Republic of Singapore, 1986, 2010, and 2017).

Surrounding the public policy discourse, there are three serious socio-economic challenges that both Singapore’s leadership and public will have to deal with: alleviating worsening income disparity; improving upward social mobility; and enhancing social integration by class, ethnicity, religion, and cultural group.

Given the increasing discontent caused by the spread of globalization, more should be done to ensure balanced and inclusive economic growth in order to reduce income inequality. While improving upward social mobility and promoting greater social integration between people from diverse backgrounds may be a daunting task, these goals are paramount, especially in a densely populated city state. The wisdom of the new leadership will be measured by how it approaches issues such as integrated housing programmes, ensuring a level playing field in education, promoting religious harmony, and forging a common national identity that evolves with time.

Singapore took its place on the world stage as the host of the historic Trump–Kim summit in June 2018. In the past Singapore has successfully organized annual meetings of the World Trade Organization, The World Bank Group, and the International Monetary Fund, and will undoubtedly continue to host similar high-level meetings in the years to come. The country’s current internationally credible
reputation for efficiency has been nurtured over the decades by the Singaporean
government under the PAP. However, there will be a host of new social, economic,
and political challenges to face as the country moves ahead.

9.12 Lessons for Developing Countries

As the old Chinese saying goes, one should think of potential crisis even if one is at
peace or in safety. The Singapore government tends to have a strong sense of crisis
to the extent that there is an element of paranoia, which may well be healthy!
A perpetual sense of crisis and alertness for the government would mean public
policymakers and senior civil servants would always be ahead of the curve. For not
only the government but also the population at large to be constantly on guard
against complacency, ready for change in anticipation of potential scenarios
ahead, would strengthen the public sector’s crisis-management capability.

Constant monitoring of an economy’s relative global ranking on ease of doing
business, reviewing infrastructural competitiveness, investing in research and
development, spotting industry and market trends, establishing a committee to
crystal-ball gaze into future disruptive changes caused by rapid technological
innovation and the imminent replacement of conventional jobs by new skillsets,
are paramount for longer-term strategic economic planning.

Developing countries, especially those emerging economies undergoing rapid
economic expansion, need to take a balanced approach to national development
and be conscious that income disparity, slowing down of upward social mobility,
and uneven distribution of opportunities for different social groups could lead to
social disharmony and friction within the community.

Promoting robust economic growth, ensuring a balanced government budget
over the business cycle, and even generating moderate government surpluses
would help to cover the rainy days.

Expanding the middle class through creation of decent-paying jobs is still the
optimal way to guarantee adequate and sustainable public services including
housing, education, health care, and transportation.

As for existing latecomers to industrialization, the window of opportunity may
now be narrower as mechanization, robotization, and digitalization have over-
taken much labour-intensive production, so catching up on relevant skillsets
becomes a daunting task calling for public-sector initiatives, especially for SMEs.
Developing countries are running out of industrialization opportunities sooner
and at much lower levels of income than early industrializers, with evidence that
both globalization and labour-saving technological progress in manufacturing
have been behind these developments. Premature de-industrialization has signifi-
cant economic and political ramifications, including lower economic growth and
democratic failure. The recent round of trade protectionism initiated by the
United States to retaliation by China, Japan, and the European Union is an added cause of concern for global trade and investment. However, there could be another new round of opportunities for developing economies as reshuffling of production value chains begins across the globe from affected economies, notably China, to emerging economies including those in Asia, Africa, and Latin America. Governments of emerging economies need to send out trade and investment missions to actively attract and quicken the pace of production relocations.

References


