

MERITOCRACY, PERSONAL RESPONSIBILITY, AND ENCOURAGING INVESTMENT

Lessons from Singapore's Economic Growth Miracle

Bryan Cheang, Bacchus Barua, Jake Fuss, Paige MacPherson, and Mackenzie Moir
Contributing Editor: Steven Globerman



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Lessons from Singapore's
Economic Growth Miracle

Collected Essays by

Bryan Cheang, Bacchus Barua, Jake Fuss, Steven Globerman,
Paige MacPherson, and Mackenzie Moir

Contributing Editor

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INTRODUCTION

Commentators and scholars ranging from classical liberals such as Milton Friedman to social democrats such as Joseph Stiglitz have admired and praised Singapore’s record of economic growth from 1965, when it achieved national sovereignty, to the present. The remarkable growth in the standard of living of Singaporeans is well illustrated through a comparison with the United States. In 2020, the real per capita Gross Domestic Product (GDP) for Singapore (US\$58,057) was virtually identical to the real per capita GDP of the United States (US\$58,190). By comparison, in 1961, Singapore’s real per capita GDP (US\$3,727) was only about 20 percent of the United States’ real per capita GDP that year (US\$19,271). In a wider comparison, in 2020 Singapore’s real per capita GDP was substantially higher than Canada’s (US\$43,258) and the United Kingdom’s (US\$41,098) and slightly higher than Australia’s (US\$57,952).

While the historical real economic growth rates of other so-called Asian Tiger economies, such as Hong Kong and Korea, are also impressive, Singapore’s economic growth performance matches or exceeds theirs.¹ For example, while Singapore and Hong Kong had virtually the same real per capita GDP in 1961, by 2020 Singapore’s real per capita GDP was almost one-third higher than Hong Kong’s. While Korea’s real per capita GDP grew slightly faster than Singapore’s from 1961 to 2020, Singapore’s average inflation rate was substantially lower than Korea’s in that period.

The first and last chapters of this volume discuss possible explanations for Singapore’s economic performance, as well as the singular political and social conditions that might make Singapore’s economic experience unique. Relatively strong economic growth has always been a public policy priority in Singapore. Successive governments have emphasized the importance of growing the “economic pie” in order to broadly raise standards of living rather than relying heavily on government transfer payments financed by high taxes on economically successful individuals and companies. To be sure, the government’s focus on economic growth has been criticized in recent years because it tolerates the economic hardship suffered by lower income earners. Consequently the Singapore government has increased funding for health care and other services targeted at lower income individuals and families. Nevertheless, the size of government in Singapore as measured by public spending or tax revenues as a share of GDP remains relatively small compared to developed OECD economies—and especially relative to the Scandinavian economies.

Singapore has strong institutions that are favourable to investment including an independent judiciary, a legal system inherited from the British that protects property rights, and a government bureaucracy that has an international reputation for its lack of corruption.

Since its inception as a sovereign state, Singapore has been open to international trade and international investment, and to immigration. Singapore's openness to the international economy has been a major source of competition for domestic producers, thereby encouraging them to be very efficient. Its openness to inward foreign direct investment and immigration has encouraged Singaporean companies to invest in physical and human capital which, in turn, largely underlies Singapore's real economic growth. A well-educated and hard-working labour force has been a particularly prominent contributor to Singapore's impressive record of economic growth. In this regard, the World Bank's "Human Capital Project," which attempts to quantify the contribution of health and education to future labour productivity, ranked Singapore first among 174 countries on this overall metric in 2020.

An emphasis on individual self-reliance and a belief in the importance of economic incentives are prominent features of Singapore's political governance. The emphasis on individual self-reliance and a related concern that universal government programs to fund social services will undermine that self-reliance help explain Singapore's approach to funding health care, education, employment insurance, and retirement that, while not unique to Singapore, is an important feature that differentiates Singapore from most other countries. The chapter on its income support system highlights how different Singapore's system is from that of most other industrialized countries because of the emphasis it places on individual responsibility.

The main feature of Singapore's income support system is the Central Provident Fund (CPF), a compulsory program that requires workers and their employers to contribute a given percentage of their gross income into personal savings accounts and allows contributors a fair degree of autonomy over how they can use their savings. The savings can be used to pay for housing, education, health care, unemployment assistance, and retirement income.

Workers and their employers are both required to contribute to the employee's CPF accounts. Younger people deposit the majority of their contributions into accounts that save for retirement. As the worker gets older, more money is allocated for medical care (via MediSave accounts) to cover future health care costs. The CPF Ordinary Account can be used to pay for housing, investment assets, life or mortgage insurance, and educational training. There are constraints on both contributions and withdrawals, including a limited number of investment options and the age at which one can withdraw retirement funds.

The system has several beneficial features. One is that Singaporean pension payouts depend almost exclusively on the amount of savings in the pensioner's account. The defined contribution design ensures that Singapore's pension system is sustainable. The system also allows individuals to top up their contribution or defer the start of retirement payouts, thereby giving people more control over their savings lifecycles. To be sure, a system of forced savings is not a system of voluntary savings. However, the forced savings model ensures against moral hazard, i.e., individuals refusing to save voluntarily because

they expect the government to fund their retirement, any unemployment spells they might face, or their health care needs.

A criticism of the Singaporean model is that too many citizens fall through the cracks of the welfare system and are not provided with a sufficient standard of living at retirement or during periods of unemployment. While Singapore's income support system is light on universal welfare benefits and unemployment protection, there are programs outside the CPF that provide financial assistance to eligible Singaporeans. These are targeted at low-income families and individuals and tend to be more generous to those who are working, e.g., ensuring that working parents are eligible for more childcare assistance than are non-working parents. Singapore's government has also added top-up provisions to the CPF for low-income people.

Another criticism of the Singapore model is that while it provides flexibility in how savers can invest, they must do so within the investment vehicles the CPF provides. The returns to investments in riskier assets have been weighed down by administrative expenses and transaction fees, so that there is a minimal difference between returns on riskier assets and on government bonds. Perhaps in partial response to this situation, Singaporeans have disproportionately invested in housing. For the average Singaporean the resulting allocation of savings might be weighted too heavily towards real estate, but this is arguably also the case for the average Canadian, Australian, or British family.

The fact that residual savings from contributions to CFP accounts to pay for health care, education, and unemployment can be used to fund retirement and to leave as bequests mitigates people's incentives to use health care and related services more intensively and perhaps unnecessarily than they otherwise would. One might therefore expect to see evidence of relatively economical expenditures on social services such as health care and education in Singapore, as well as more consistent employment of workers.² One observation that indirectly supports this latter inference is Singapore's relatively low unemployment rate compared to other wealthy countries. For example, Singapore's average annual unemployment rate from 1981 to 2019 was 2.74 percent. By comparison, Korea's average annual unemployment rate was 3.53 percent over the same period, while the rates for Australia and the US were 6.80 and 6.17 percent, respectively.

Another relevant observation is Singapore's relatively low rate of spending on health care, which is a major government expense in all wealthy economies. In this regard, of 29 OECD countries, Singapore ranks as the lowest health care spender as a percentage of GDP and 18th out of the 29 countries for health care spending per capita. After adjusting for age, Singapore continues to rank as the lowest health care spender as a percentage of GDP, although it increases to rank 10th out of the 29 countries for age-adjusted spending per capita. Private spending makes up a larger portion of overall health care spending in Singapore than in most other OECD countries. Health care expenditures in Singapore come from a combination of sources including a mandatory basic insurance scheme paid from taxes, a government investment fund that serves as a safety net for the poor, and MediSave personal savings accounts that are part of the

CPF. Withdrawals for MediSave accounts can be used to pay for any medical expenses, including care received in private hospitals.³

While comparing the performance of health care systems across political jurisdictions is challenging given the variation in non-medical contributors to morbidity and mortality, it must be acknowledged that Singapore is, at best, an average performer on various performance measures including cancer survival rates. Furthermore, it is, if anything, a below-average performer on the availability of health care resources such as the per capita number of MRI and CT machines. Conversely, Singapore performs exceptionally well on life expectancy at birth and health-adjusted life expectancy.

As is the case for all wealthy economies, Singapore has a mixed economy to a greater or lesser extent in that government has had and continues to play a significant role in market activities. In particular, the government has employed industrial policies to direct Singapore's economic development, including providing subsidies to private sector firms for the purposes of upgrading technology and business processes, making government investments in specific industries deemed important, and overseeing so-called government-linked corporations (GLCs). The latter are akin to state-owned enterprises, except in Singapore's case GLCs are indirectly controlled through a sovereign wealth fund called Temasek Holdings.

Industrial policy obviously involves government bureaucrats displacing decision-making by private sector participants to some extent, which in Otteson's (2023) continuum from capitalism to socialism would move Singapore along the continuum away from capitalism and towards socialism.⁴ However, the reality of industrial policy as practiced by Singapore's government is nuanced. Specifically, even though there are numerous GLCs in Singapore, the government has always sought to maintain an element of market discipline. To this end, GLCs are expected to provide commercial returns commensurate with investment risk. Furthermore, they are not favoured with special privileges and hidden subsidies. Concerns that GLCs were becoming too prominent a feature of Singapore's economy led to a privatization movement in the 1980s and 1990s, though the pace of privatization has slowed considerably since then.

The use of market incentives is also a feature of public policy in Singapore—and not just industrial policy. One prominent example is the use of road pricing. Another is housing policy. The government supplies the market with most of the housing in Singapore, and the government's sovereign wealth fund is a large investor in domestic construction companies. However, Singaporeans can be *bona fide* owners of property that they can rent or resell. Yet another example is unemployment payments. Singapore's Workfare program seeks to encourage low-skilled individuals to find work and upgrade their skills. It consists of an income supplement that tops up a low-wage worker's monthly income, but the supplement is unavailable to the unemployed.

Singapore's economy has significant features that can be characterized as socialist. Nevertheless, even in sectors of the economy where government is a prominent direct or indirect

participant, government policy promotes efficiency and includes incentives to encourage managers and employees to produce goods and services of relatively high quality at competitive prices. In this respect, Singapore is an outstanding example of how economic behaviour can respond to the incentives of performance-based rewards and other institutional features of a market system, even in government bureaucracies.

Notes

- 1 Taiwan is also considered an Asian Tiger, but economic data for it is not publicly available.
- 2 Specifically, workers have a financial incentive to stay employed so that they do not need to draw down their saving account to fund spells of unemployment.
- 3 Almost 40 percent of hospitals in Singapore operate on a for-profit basis.
- 4 See James Otteson (2023), *An Introduction to Socialism vs. Capitalism*, The Fraser Institute <<https://www.fraserinstitute.org/studies/an-introduction-to-socialism-vs-capitalism>>.

AN OVERVIEW OF SINGAPORE'S DEVELOPMENT AND PUBLIC POLICIES

Bryan Cheang

Introduction

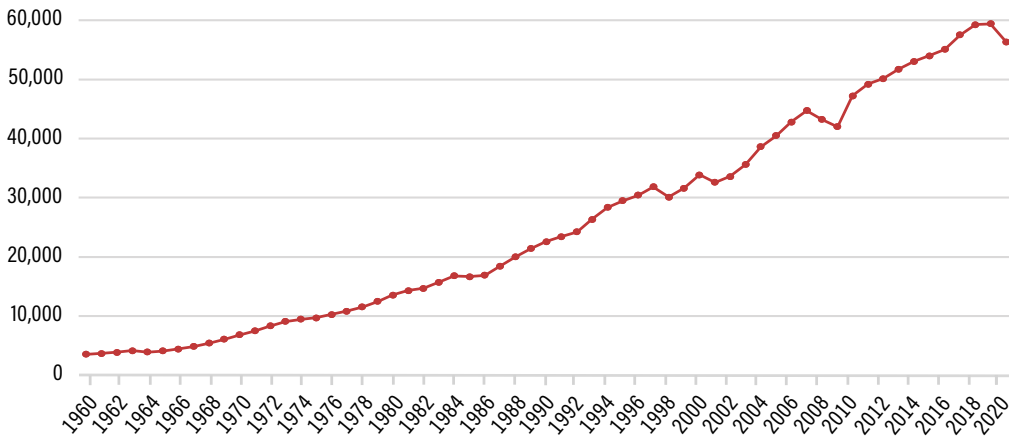
Singapore is a small city-state in Southeast Asia with a population of about 5.7 million (in 2019) that has undergone significant changes over the years. Founded in 1819 as a British colony, it experienced more than a century of colonial rule that emphasized economic openness. After a brief period under the Japanese occupation from 1942 to 1945, Singapore started on a gradual process of self-government which took about two decades to unfold. During that time, from 1963 to 1965, Singapore tried merging with Malaya—an idea that ultimately proved to be unsuccessful. It finally achieved national sovereignty in 1965 when the Republic of Singapore was born.

Since then, Singapore would become one of the wealthiest countries in the world with a global reputation for non-corrupt, effective, and efficient governance. Singapore now stands as a global city-state with various international connections and with trade, capital, and immigration flows that are among the highest in the world. It participates actively in world affairs and is a member of the United Nations, the Association of Southeast Asian Nations, the World Trade Organization, Asia-Pacific Economic Cooperation, and the G20, amongst others (Singapore, Ministry of Foreign Affairs, 2021).

Singapore boasts a strong economic record. Understandably, it has received worldwide admiration from prominent organizations, scholars, and commentators. Admiration of Singapore's economic model has come from across the political spectrum including from classical liberals such as Milton Friedman to social democrats such as Joseph Stiglitz. While different voices stress different aspects of Singapore's growth story, everyone is united in understanding that something remarkable occurred within a short time span and that Singapore offers crucial lessons for other developing nations.

Singapore has performed impressively over the years. As one of the four East Asian “tiger economies,” Singapore's rapid rise from third world to first world in a few decades is well known. The World Bank's World Development Indicators, which began documenting the GDP of nations worldwide in 1960, show just how rapidly Singapore has developed since its independence in 1964. Beginning with a GDP of \$7.713 billion (all currencies in constant 2010 US\$), Singapore peaked at \$338.646 billion in 2019, immediately before the

Figure 1.1: Per Capita GDP in Singapore (in Constant 2010 US\$)

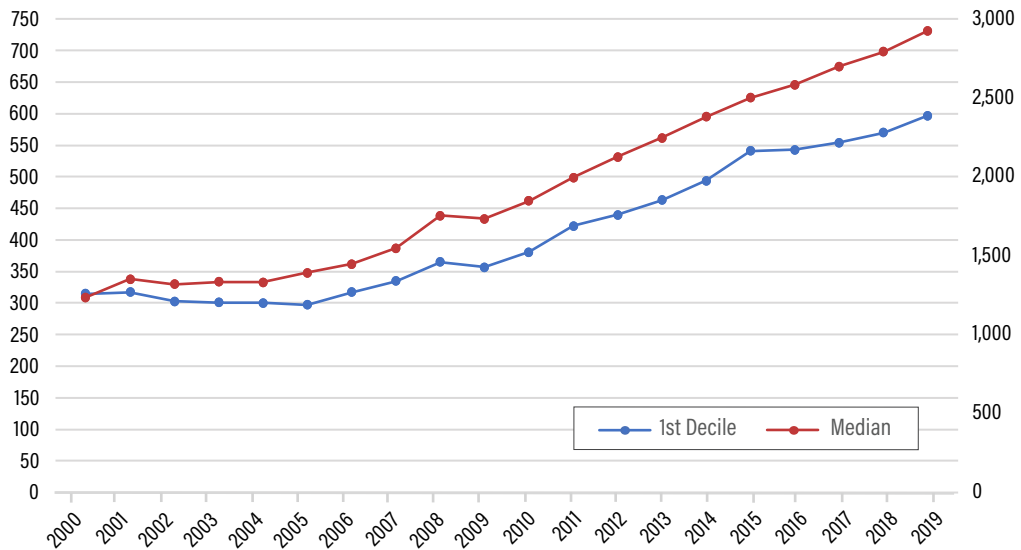


Source: World Bank (2021).

onset of the COVID-19 global pandemic (World Bank, 2021). This is an annual growth of about 4.4 percent over 55 years, averaging about \$6.017 billion a year. Similarly, GDP per capita of \$4,088 in 1965 reached \$59,274 in 2019, an increase of about 1.45 percent, or about \$1,005 billion per year (World Bank, 2021) (see figure 1.1). As of 2019, Singapore ranked tenth in GDP per capita, behind countries like Monaco, Luxembourg, Switzerland, and Denmark.

Economic growth in Singapore is not concentrated in the hands of the elite. From 2000 to 2019, the growth rate of the monthly income per household member was similar for the median and first decile earner. The former grew by 137 percent while the latter grew by 90 percent (World Bank, 2021) (see figure 1.2).

Figure 1.2: Monthly Household Income per Household Member (in Nominal S\$)



Source: Singapore Department of Statistics (2021c).

Singapore's economic performance is by no means perfect, suggesting that other countries should be cautious when drawing lessons from it. There are legitimate concerns about its performance in productivity, innovation, and entrepreneurship. Singapore's economic policies have also been criticized for focusing too much on multi-national corporations at the expense of home-grown firms and small enterprises, which may signal that its industrial policy approach has limits. Its political system remains repressed and illiberal and is in great need of reform.

Understanding Singapore's economic policies

Singapore's economic strategy has always relied heavily on interventionist industrial policy—and continues to do so (Lim, 1993). In Singapore, industrial policy involves 1) government subsidies to firms so they can upgrade their technology, human capital, and business processes, 2) government investments in specific industries, 3) government provision of industrial facilities to specific companies, and 4) maintaining government-linked corporations (Chia, 2005). This naturally leads to questions about whether Singapore is a free-market success story, or whether its success was largely brought about by government intervention.

To answer this definitively is beyond the scope of this chapter, but I provide tentative reasons to be sceptical about government industrial policy playing a central role in Singapore's development. First, while the Singapore government indeed supports development with its industrial policy, the country had already achieved considerable economic success during the British colonial era when such policies were not in place. Even before it established the modern state apparatus of the People's Action Party (PAP),¹ Singapore was flourishing as a free port, with open markets and trade. This made Singapore one of the most prosperous cities in the region, an achievement that preceded and occurred before it developed and pursued its formal industrial policy. (One can only wonder how much more progress Singapore would have achieved had the PAP government continued this more market-led path.) Second, Singapore's success is cause for reflection on what economic development really means. While Singapore's national incomes have grown at a relatively high rate over the years (see figure 1.2), it has performed relatively poorly on productivity, entrepreneurship, and innovation. This suggests that while its industrial policy may have contributed to high income growth, it struggles with higher-quality development (Cheang, 2022).²

Additionally, while the Singapore government has indeed used industrial policy heavily, it cannot be the only contributor to Singapore's economic success. Many other nations have also employed industrial policies, to no avail. A fuller analysis of Singapore's economic success must also consider other factors that have all benefitted the country including its favourable geographical location, the confluence of fortuitous circumstances in the post-war period which saw the rise of multinational corporations and their capital investments, and its decision to maintain (though not fully) the British structure of governance. To credit Singapore's economic position today as the simple product of government intrusion into markets would be overly simplistic. Even though Singapore engaged in extensive

state planning, such interventions *co-existed with* market elements as opposed to fully suppressing markets as was the case of the former Soviet economies.

Without dismissing the significance of the existence of industrial policy and the benefits it has brought to certain areas of Singapore’s economy, this chapter focuses on other aspects of Singapore’s development, specifically the pro-market policies that the incumbent People’s Action Party has pursued over the years, a perspective that also warrants consideration. Several themes stand out in Singapore’s history of promoting economic development and each will be discussed in the following sections. First, Singapore inherited modern institutions from the British, institutions that have presided over a relatively tolerable administration of justice. Second, the Singapore government prioritized pragmatic goals centred around economic growth, market efficiency, and self-reliance over unrealistic socialist ideals.

Sound institutions

Singapore’s growth is not just a happy accident for a once-developing country. Its growth has been sustained by a general commitment to a pro-market, pro-business, pro-competition environment. The World Economic Forum’s Global Competitiveness Index (GCI) testifies to this. As of 2019, Singapore tops the GCI, besting even paragons of innovation like the United States, the Netherlands, and Switzerland (Schwab, 2019: xiii). It has sustained its impressive ranking over the years and is especially notable for how it bests G7 economies, as table 1.1 shows.

Table 1.1: World Economic Forum’s Global Competitiveness Index Rankings, 2016-2019

Country	2019	2018	2017-2018	2016-2017
Singapore	1st	2nd	3rd	2nd
United States	2nd	1st	2nd	3rd
Japan	6th	5th	9th	8th
Germany	7th	3rd	5th	5th
United Kingdom	9th	8th	8th	7th
Canada	14th	12th	14th	15th
France	15th	17th	22nd	21st
Italy	30th	31st	43rd	44th

Sources: Schwab (2019: xiii), Schwab (2018: xi), Schwab (2017: ix), and Schwab (2016: xiii).

The index seeks to rate each country based on how close its economy is to the hypothetical frontier of competitiveness, “an ideal state where an issue ceases to be a constraint to productivity growth” (Schwab, 2019: 3). Under the latest methodology (used for the 2019 report), the index ranks each economy based on 12 indicators, each having equal weight in determining a country’s final score. These indicators measure four components:

the economy's enabling environment, human capital, market conditions, and innovation capability (Schwab, 2019: Appendix A). Respectively, these components generally measure the government's capability and commitment to uphold the rule of law and property rights; the health and quality of the workforce; the magnitude of competitiveness, openness, and how great the incentives are for markets to operate; and the ability and willingness of businesses to innovate.

Economists have singled out legal institutions and property rights protections as an especially important aspect of competitiveness (Norton, 1998; O'Driscoll and Hoskins, 2003; Rodrik, Subramanian, and Trebbi, 2004). Singapore has consistently performed well on this measure as evidenced by its performance on rule of law indices. In 2018, Political & Economic Risk Consultancy Ltd. ranked Singapore first out of 16 countries for corruption, ranking above countries like the United States, Japan, and Hong Kong.³ In 2019, Singapore ranked in the 96th percentile for the rule of law in the World Bank's Worldwide Governance Indicators (2020b). In 2020, Singapore ranked twelfth out of 128 countries in the World Justice Project's Rule of Law Index. Transparency International (2020) ranked Singapore third out of 180 countries in its Corruption Perception Index. Singapore ranked first out of 178 countries in the Heritage Foundation's Economic Freedom Index in 2021 and in the Fraser Institute's *Economic Freedom of the World* report it has held second place consistently for a number of years. Singapore also ranked fifth out of 114 global financial centres in the Global Financial Centres Index (2021).⁴

Another indicator, the Ease of Doing Business Index, complements our insights by focusing on the regulatory efficiency of an economy. Unlike the GCI, which takes a more holistic look at economic competitiveness, the Ease of Doing Business Index focuses more narrowly on how government policies facilitate the ease of creating and managing businesses, through indicators such as how many days it takes to start a business, register property, or pay taxes (World Bank, 2020a: 79). On this indicator, Singapore ranks very highly overall—first in 2016 before being overtaken by New Zealand. The sub-indicators of the Ease of Doing Business Index also reveal much. Testament to its efficient legal system, Singapore is first in “enforcing contracts” in the latest 2019 ranking (World Bank, 2020a).

Singapore's high rankings on these indices are no coincidence. They reflect the Singapore government's deliberate efforts to position the country as an attractive and conducive place for doing business. These efforts are based on the belief that the institutional environment must be one that protects property rights, including intellectual property, and one that respects the rule of law and contractual obligations. This is best reflected in a keynote speech by former Minister of Trade and Industry Chan Chun Sing when he declared to European Union delegates that “while we continue to strengthen... external linkages, domestically, we are also ensuring that Singapore remains a conducive place for doing business. Our pro-business policies, sound legal and regulatory system, and robust intellectual property protections provide certainty to businesses and foster innovation. These are important attributes of our competitiveness, which we take very seriously” (Chan, 2018).

Caveats are in order. The existence of these institutions and Singapore's high rankings by no means suggest that Singapore is a minimal-intervention state. In fact, some of these indices may obscure deeper and more complex forms of state intervention into Singapore's economy (Cheang, 2022). Indices in general can also be misleading if used uncritically (Muller, 2018). But the point here is that Singapore is genuinely committed to using market forces, immeasurably more so than socialist regimes where market forces are actively suppressed.

The British legacy

Many scholars point to Singapore's government policies as the main contributing factors to its economic success (Lim, 1993; Huff, 1995). This view focuses on the heavy industrialization, the pro-active government support of multinationals, and the training of the local workforce that the Singapore state pursues (Low, 1998). This view is not wrong, but is only part of the larger story. An equally important aspect of Singapore's development comes from its colonial history, which saw it inheriting modern institutions and experiencing trade-led economic growth.

A former British colony, Singapore inherited an enviable set of institutions even before it became independent. In the early years of its self-government (1945-1965), prior to its achieving full independence, Singapore was already a thriving commercial hub with all the institutions and infrastructure needed to support a thriving economy (Lim, 2016: 2). In fact, Singapore owes such a great debt to the advantages bequeathed to it by its colonial masters that “even iconic Singapore social policies like Housing Development Board (HDB) public housing... and Central Provident Fund (CPF) savings for retirement... and its unusual currency board system... had their origins in colonial-era policies and institutions” (Lim, 2016: 2).

Lee Soo-Ann (2016) detailed the history of Singapore's development under the British, explaining the confluence of events that underlie Singapore's rich inheritance. As she notes, Stamford Raffles “discovered” Singapore in 1819 and subsequently insisted that it be a vanguard of Adam Smith's free trade imperative to resist the mercantilism prevalent in that era, i.e., that it be a trading port without tariffs. At the time, Singapore had a very small population of a few hundred people and Raffles pursued a policy of the free movement of labour, accepting any migrant who would come. This policy not only made Singapore viable as a trading port, but made it a popular one; its free trade regime attracted traders, making it a hub for the spice trade (Cheang, 2022).

Prominent Singapore historian Constance Mary Turnbull has recognized Sir Stamford's classical liberalism. Turnbull wrote that Raffles “reflected the most advanced radical, intellectual, and humanitarian thinking of his day. The type of society he aspired to establish in Singapore was in many ways ahead of contemporary England or India... he established in Singapore a free port following the principles of Adam Smith and laissez-faire at a time when Britain was still a protectionist country” (2009: 50).

Apart from Stamford Raffles, the other early British leaders of colonial Singapore, such as William Farquhar and John Crawfurd, also strongly emphasized free trade. The latter, who Raffles himself appointed, continued the tariff-free status of the port and even abolished port charges, anchorages, and other shipping-related fees (Turnbull, 2009: ch. 1). Their allegiance to free trade was also coupled with a belief in open immigration. British leaders welcomed the throngs of immigrants from nearby China and India, all of whom flocked to Singapore in search of economic gain. Prominent local historians Ernest Chew and Edwin Lee have documented and acknowledged this twin combination of free trade and open immigration:

It [Singapore] succeeded because it was an island enclave of uninhibited private enterprise, open to all races, without any religious or linguistic qualifications. It was also a free port. Except for a short interlude at Penang between 1786 and 1801, the idea of permitting trade without simultaneously taxing it was virtually unknown in the East at this time. Trade in ports under Western colonial rule were either subject to monopolies or higher duties and all kinds of restrictions, while the ports, great and small, under local rule were heavily taxed and were often subjected to all forms of exactions imposed at the whims and fancies of their rulers. Trade sometimes seemed to be tolerated rather than encouraged. Free port status, which attracted both Asian and Western traders, was one of the principal reasons for Singapore's rapid success. (Chew and Lee, 1991: 47)

Regional developments also enhanced Singapore's position as a free port. Due to problems in India at the time, Singapore and the new colonies of Britain in Southeast Asia took on greater significance and became known as the Straits Settlements with their own independent jurisdiction. Moreover, as a thriving trading port in a strategic location, Singapore was seen as the key colony of the Straits Settlements, and the new governing body focused on it over the others. It was during this period that the European demand for spice fell, and Singapore began to depend on trade in tin, rubber, and oil for its revenue. Singapore acted as a "staple" port, where rather than domestically producing these goods, it acted as a hub through which regional companies and countries exchanged these goods (Huff, 1997). At the turn of the twentieth century the domestic production of rubber became significant, a process which also saw the growth of prominent Chinese rubber industrialists and banking services (see Yong, Gonzalo, and Mar, 2014 for an example). The export of tin and rubber also led to advances in shipping and insurance services in Singapore, and the land on which tin was mined and rubber trees were grown required business management as well. These developments made Singapore a business and financial hub in addition to a trading one.

Because Singapore was a popular business and trading hub, multiple currencies flowed through it, which made the values of gold and silver volatile. Consequently, the British introduced a currency system that could be exchanged for the British pound, integrating Singapore into the economy of the expansive British Empire. Moreover, the new currency

enabled capital to flow relatively easily between Britain itself and Singapore. The stability of the currency, a key feature of healthy market economies, allowed Chinese banks to emerge to serve the Chinese business community, which was especially beneficial because of the language barrier between the British and the Chinese and further enhanced Singapore's role as a financial hub.

All these developments were reinstated in Singapore in the years following the Japanese occupation. For two decades, from 1945 to 1965 when it achieved full independence, Singapore customized and adopted British institutions and practices. They included building a local civil service based on the British model and a Westminster electoral system. The economic practice of free trade and open immigration continued, except that this time, the local Chinese business community became more prominent than ever, with Chinese banks, companies, and business leaders contributing a greater share of national income (Visscher, 2007).

Hence, even before Singapore achieved national independence in 1965 it was on firm financial ground because it had inherited Britain's institutions and long legacy of economic openness.

A tolerable administration of justice

One of Adam Smith's key insights is not just his emphasis on small government, but on government that is non-corrupt. This is an important reminder to market liberals, who often praise the virtues of the free market but neglect to emphasize the institutional prerequisites needed to make it work. In fact, a "tolerable administration of justice" is one of the few aspects Smith believed was essential to "carry a state to the highest degree of opulence" (from a 1755 lecture in Stewart (1794), section IV, para 25).

The emphasis on "administration" is one of the keys to understanding Singapore's economic success. Over the years, it has sought to establish a non-corrupt, competent public administration based on the rule of law. While the existence of public administration itself may be anathema to some classical liberals, a state cannot escape some administration if it is to exist in a polity. What is essential is ensuring that this administration is well designed, market-friendly, and conforms to the rule of law. And even though Singapore's public administration is not libertarian, it still features a competent civil service, has a reputation for non-corrupt governance, and its policy design recognizes market principles.

Non-corrupt governance

Singapore boasts one of the world's best ratings for low levels of corruption. The Transparency International (TI) Corruption Perceptions Index (CPI) 2020 has ranked Singapore the third least corrupt country out of 180 countries, with an enviable score of 85. Notably, Singapore is the only Asian country consistently ranked in the top 10. The strong anti-corruption nature of Singapore's governance can be historically traced to the PAP government.

When the PAP government assumed office in 1959, then Prime Minister Lee Kuan Yew expressed his resolute commitment to corruption-free governance: “The PAP government set out to have a clean administration. We were sickened by the greed, corruption, and decadence of many Asian leaders... who let their societies slide backward” (Lee, 2000). This unwavering anti-corruption objective was deeply embedded in PAP’s mission and inspired its bureaucrats to be clad in white shirts and white pants “to symbolize the purity and honesty we stood for... [which] was what the people expected” (Lee, 2000). High moral principles and non-corrupt, effective government became the motto and *modus operandi* of the PAP government.

The PAP government has taken every opportunity to root out corruption. One example is Singapore’s reliance on competitive market pricing which has obviated the economic rents that come with lucrative monopolies, concessions, licenses, or import permits. Rent-seeking was rife under President Marcos of the Philippines and President Suharto of Indonesia, giving rise to corruption in those countries. In contrast, Singapore limits bureaucratic discretion by publishing clear and specific guidelines, and recruits and promotes civil servants based on merit, thereby eliminating any favour or preference towards any individual.

Additionally, the PAP government holds itself accountable for every dollar it spends. Unlike in many other countries, there is no drain on the budget from loss-making public enterprises or from general subsidies on items such as petroleum products, electricity consumption, or food products. Notably, the government’s interest payment on public debt is quite low. It has no external debt. Its domestic debt is limited to government securities issued in the domestic capital markets and the Central Provident Fund undertakes limited borrowing for reinvestment purposes (Ghesquiere, 2007: 53). Singapore’s financial prudence and fiscal discipline have inspired public confidence, reinforcing the PAP’s commitment to transparent and accountable governance.

Highly competent civil service

A 2015 World Bank report ranked Singapore as the world’s best for government effectiveness. Singapore’s civil service became the envy of the world, with Hong Kong Chief Executive Carrie Lam later suggesting that it was worthy of emulation in that jurisdiction (Today Online, 2017). Notably, the civil service has proven its effectiveness in many crises, including the 2003 SARS outbreak and various worldwide recessions. Meritocratic principles govern the recruitment and promotion of highly qualified civil servants. The PAP government believes that the problems that plague modern societies are technical and complex, and that effective policymaking requires the best minds and specialized knowledge (Chong, 2007: 954). By attracting the most qualified people to the civil service, ministries and statutory boards perform highly efficiently and competently.

Furthermore, the remuneration for civil servants is competitive with the private sector and the state avoids the wage compression of the salary scale that is typical elsewhere (Quah, 2010). Attractive remuneration keeps the civil service lean and ensures that civil servants are sufficiently motivated to perform well. Further, there is also no strain on the

government budget from overstaffing. Over time, the country's civil servants have developed an ingrained sense of pragmatism and public-spiritedness.

Pragmatism, growth and efficiency

Key to understanding Singapore's economic success is its commitment to economic growth, which to our contemporary sensibilities may seem like an obvious priority but was very radical in post-war Southeast Asia.

Pursuing economic growth was not always an obvious policy choice in a region that heavily emphasized economic nationalism and even communism. At the end of World War II, numerous countries in Southeast Asia, of which Singapore is a part, began a process of decolonization, which saw numerous socialist and nationalist politicians gain power. This process was also accompanied, unfortunately, by an anti-Western outlook, which saw foreign capital, trade relationships, and multinational corporations as expressions of neo-colonialism (Owen, 2000). In their effort to decolonize, Southeast Asian nations also rejected integration with the Western economic world.

Singapore chose a different path. Knowing it had to connect with the foreign and Western world for its very survival, it embarked on a pragmatic path of economic growth. While the choice of policies was not always classically liberal in form, they shared a modern outlook and a preference for economic growth that classical liberals would endorse.

Economic openness

At a time when other newly-independent Asian nations were choosing economic nationalism, Singapore decided to be pragmatic, focusing on economic openness instead. A critical juncture in Singapore's economic history occurred just prior to its independence in 1965 when it sought the advice of Dutch economist Albert Winsemius. In 1961 Winsemius' recommendations, called *The Winsemius Report*, were presented to then Prime Minister Lee Kuan Yew. The report emphasized a path of economic growth based on the continuation of economic openness, and investment into industry and human capital. Specifically, Winsemius also urged the government to form a non-political agency to manage Singapore's industrialization. The Singapore government was galvanized into action and established the Economic Development Board (EDB) that very year.

As the pilot agency, the EDB was responsible for promoting and attracting foreign investment to Singapore, which was crucial for it to maintain its economic openness. One of its earliest achievements was convincing Texas Instruments to build manufacturing facilities in Singapore in 1968. After that landmark investment, other multi-national corporations gained confidence and followed suit—National Semiconductor, Hewlett Packard, and General Electric, to name a few, also invested in manufacturing facilities in Singapore. Through tax breaks and other incentives, EDB influenced technology company Seagate to choose Singapore over Hong Kong and South Korea for its facilities in 1982. The EDB's competency was and remains an important institutional link

that has supported the range of economic policies aimed at attracting multi-national corporations to Singapore (Schein, 1996).

Unlike the prevailing economic advice at the time for newly independent nations to impose tariffs on imports and regulations on foreign firms, Winsemius's unwavering insistence that Singapore become a free-trade state was crucial to its eventual success. He also advised the government to sell Singapore-manufactured products to countries like the US, Europe, and Australia. Winsemius felt that "strong ties with the West were important to get access to their booming markets" (Lee, 2000). Winsemius' outward-looking, export-oriented strategy boosted Singapore's progress where conventional protectionist prescriptions, like tariffs and business regulations, would have "stalled economic growth and increased poverty in many developing countries" (Li, 2017).

Singapore's economic openness is well-known. This is illustrated by its substantial trade volume, especially when expressed as a percentage of its GDP (see table 1.2). Significantly, Singapore's openness is not merely a function of trade in goods and services, but also its favourable stance towards inward foreign direct investment.

Equity through growth

Many countries, especially those with a social democratic orientation, strongly emphasize the principle of equity, and pursue policies such as progressive taxation, heavy income and wealth redistribution, and generous social spending. The Singapore government rejected such proposals on pragmatic grounds, believing that they would harm economic growth and encourage perverse incentives. Lee Kuan Yew had one specific example that he liked to cite: that medicines would be wasted if they were given out free of charge by a welfare state (Haseltine, 2013). The rejection of universal entitlements and European welfare states is a key factor explaining Singapore's high growth rates and economic record.

Table 1.2: Singapore's Trade Volumes, 1990-2020

	2020	2010	2000	1990
Singapore Export Volume (in millions of nominal S\$)	567,948.2	510,544.9	267,115.3	99,028.5
Singapore Import volume (in millions of nominal S\$)	438,745.1	424,323.6	239,938.0	102,065.8
Trade volume as % of GDP	320.6%	369.7%	364.4%	344.3%
Foreign Direct Investment in Singapore (in millions of nominal S\$)	(2019) 1912272.3	665113.4	191452.5	NA
FDI in Singapore as % of GDP	(2019) 374.4%	203.4%	115.6%	NA

Source: Calculated by author from Singapore Department of Statistics (2021a), Department of Statistics (2021b), and World Bank (2021).

The rejection of a welfare state does not mean that the Singapore government does not care about its people. Rather, it strongly believes that the best way to help the least-well off is not by reallocating shares of a fixed pie, but rather to grow the economic pie for all (Choy and Cheang, 2021: ch. 6). This conviction explains why the Singapore government cares less about inequality and more about income mobility, a lesson that other countries should learn. The current prime minister remarked recently: “if the economy was stagnant, it doesn’t mean everybody’s going to be happy, and it may be equally unequal,” adding also that “if I can get another 10 billionaires to move to Singapore and set up their base here, my Gini coefficient will get worse but I think Singaporeans will be better off, because they will bring in business, bring in opportunities, open new doors and create new jobs, and I think that is the attitude with which we must approach this problem” (Ng, 2013).

Equity is not dismissed but is pursued through an emphasis on economic growth. This is, in turn, is accompanied by a pragmatic appreciation of market incentives in the delivery of social services, best exemplified through the “Many Helping Hands” approach, which has been the guiding philosophy behind Singapore’s social policy since the early 1990s (Singapore, 1999). The Many Helping Hands (MHH) approach emphasizes mutual help, reciprocity, and social capital (Ang, 2015). It starts with the premise that individuals are primarily responsible for themselves, but also that the family should be the first line of support. If individual and family support are inadequate, the community and various voluntary organizations should play a key role in social welfare. State welfare should be the last, not the first, source of social assistance (Mehta, 2006).

MHH has led to a polycentric, network-like structure of social provision in Singapore where various agencies and organizations play a role in supporting the disadvantaged, with the state being the overall coordinator of the system rather than bearing the full financial weight of social provision (Ong, 2010). Singapore’s social sector has a variety of stakeholders including more than 400 voluntary welfare organizations and grant-making foundations. In keeping with the concept of decentralization, even the government bodies that provide social assistance are divided into multiple levels of authority, i.e., five different Community Development Councils across Singapore promoting philanthropy and community volunteerism, more than 43 Family Service Centres that specifically serve families in need, and 24 Social Service Offices that administer targeted social assistance in specific localities (Sim, Ghoh, Loh, and Chiu, 2015). Thus, Singapore’s social policy is guided by a nuanced set of principles that not only stress individual self-responsibility, but also reliance on mutual aid through community organizations. This is translated institutionally as a decentralized network of social service organizations.

One important lesson to which other countries should pay attention is Singapore’s judicious combination of pragmatism, economic growth, and equity. Social provision is present, but it never overwhelms individual self-reliance and community-based mutual aid. In those cases where government must provide social services, it never dismisses market efficiency but, rather, appreciates it.

Market efficiency

As mentioned earlier, the government has indeed used industrial policy, and government-linked corporations (GLCs) have played an extensive role in that area. GLCs have been active in key sectors such as manufacturing, finance, trade, transportation, shipbuilding, and services (Mauzy and Milne, 2002: ch. 6). GLCs are akin to what we understand as state-owned enterprises, except that in Singapore they are indirectly controlled by the government through a sovereign wealth fund called Temasek Holdings. The government, through Temasek, makes extensive use of GLCs to carry out business and economic activities in the private sector and thereby retains an indirect influence over the economy. From the outset the government has proactively invested in industries that it deems important or those that were seen to be “sunrise” industries (Tan and Bhaskaran, 2016: 53). That such entities exist suggests that Singapore is not a minimal state in the way classical liberals envision. The reality is far more complex (Cheang, 2022).

Even though Singapore has numerous GLCs, the government has nonetheless always sought to maintain an element of market discipline. In fact, the very structure of the GLCs was designed to mimic private enterprises. According to the government, GLCs operate as fully for-profit commercial entities on the same basis as private sector companies; they are expected to provide commercial returns commensurate with the risks they take (Ramirez and Tan, 2003: 5). Additionally, the government has repeatedly made it clear that GLCs will not be favoured “with special privileges or hidden subsidies,” and that they are “expected to compete on a level playing field,” just like any other company in the private sector (Singapore, Ministry of Finance, 2002). Significantly, in the 1980s and 1990s, the Singapore government pursued a privatization drive following concerns that GLCs were starting to become too extensive. In 1987, a Public Sector Divestment Committee (PSDC) report recommended that as many GLCs as practicable should be privatized. The PSDC examined 99 GLCs and recommended 15 for public listing, 9 for further privatization, and 17 for total privatization. It also recommended that 4 statutory boards be studied for privatization (Low, 1991).

The result of such efficiency initiatives is mixed, and further research is required to fully assess them. One problem is that the privatization drive, while commendable, did not go as far as it should have. Linda Low notes the slow process of handing over the functions of these bodies to the private sector: “the privatization programme is slow and cautious, suggesting the government’s reluctance to surrender complete control of macroeconomic policies and targets” (1993: 176). The continued presence of the GLCs arguably also crowds out small- and medium-sized enterprises, which because of their presence have less space to operate. There is thus a continued need for the Singapore government to move away from its traditional reliance on large foreign multinational companies and government-linked corporations to embrace indigenous entrepreneurship (Cheang, 2022).

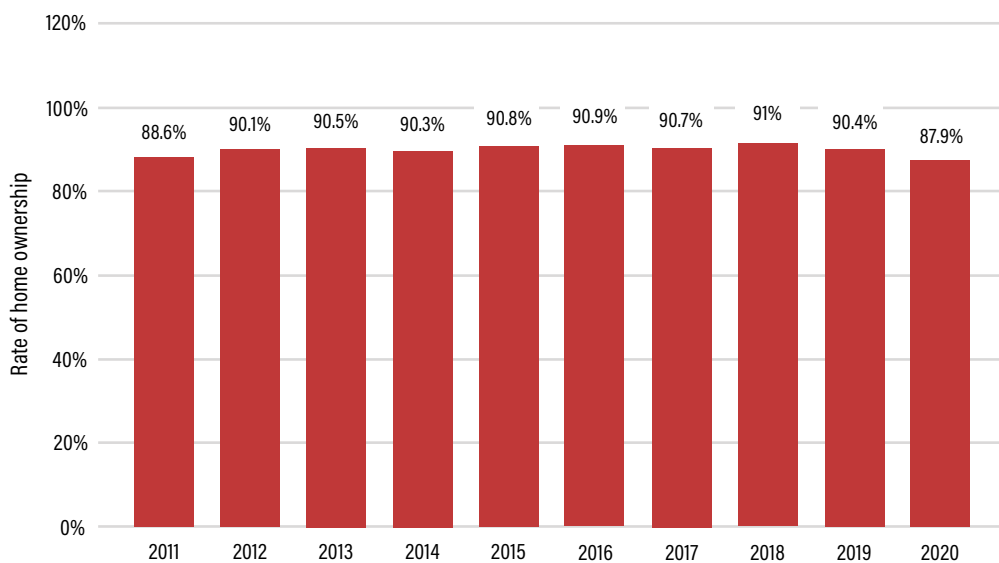
Despite limited success in rolling back the presence of GLCs, what is much clearer is that market incentives are being used in specific areas of policymaking such as health

care, education, transportation, and housing. The fact that Singapore performs well in these areas and incorporates market forces suggests that other countries should pay attention. The adoption of specific market-based policy tools in discrete policy areas is much more feasible than a wholesale adoption of the entire Singapore model, which may not be as easy.

Public policy particularly makes considerable use of market incentives. Singapore is famously the first nation in the world to have adopted road pricing, an innovative model that allows it to limit congestion effectively. More significant is its housing policy, which has enabled Singaporeans to enjoy one of the highest rates of homeownership (over 85 percent) in the world, a great achievement considering the problems of access to affordable housing in many Western countries.

Housing policy provides an interesting case study. It should be noted at the outset that most housing in Singapore is provided by the state, and more than two thirds of Singaporeans live in government apartments. There is also state regulation of land, housing supply, ethnic compositions in government apartments, zoning, as well as the provision of subsidies for the least well off (Heng, 2016). Some have also said that housing in Singapore is inextricably linked to the maintenance of political authoritarianism (Tremewan, 2016). While this is true, the state does not suppress market forces, but rather “works with them” in a hybrid manner. Thus, the strong hand of government in Singapore’s housing coincides with a large role for markets and the private sector. First and most significantly, government apartments in Singapore can be resold on the market subject to certain limitations. Singaporeans are bona fide owners or renters. This is in contrast to Hong Kong, where occupants of social housing do not enjoy full ownership rights and

Figure 1.3: Rate of Home Ownership in Singapore, 2011–2020



Source: Singapore, Department of Statistics, retrieved from Statista.

thus have lower incentives to care for, improve, and enhance the asset value of their homes (Wong, 2015, ch. 5). So even though the Singapore state holds a monopoly on land (land was forcibly acquired in the country's early years and housing is largely state provided), Singaporeans nonetheless hold considerable property rights in their homes. This in turn means that residents benefit from the rising asset value of their homes and have a stake in the country's economic growth.

Building houses is one thing; doing so efficiently and at high quality is another. Singapore has largely done both. The government frequently sells land to private developers and engages in private-public partnerships, even in the construction of new housing estates. This Government Land Sales program has "provided the private sector with viable business opportunities to develop residential, commercial, recreational, and office buildings in prime locations," which has an impact on the people, who "benefit from the improved built environment and increased employment opportunities" (Centre for Liveable Cities 2017: 21). In construction and urban development private firms abound. Many new apartments built today are of better quality than those built some years ago due to the use of prefabrication technology, which the private sector developed after the state decided to withdraw itself from this area (Phang, 2018: 44).

These are important insights. Egalitarians, socialists, and left-liberals typically believe in the importance of goals such as universal access to essential goods like health care, education, and housing. While this is praiseworthy, the challenge is to achieve such goals without sacrificing efficiency. For all of Singapore's social engineering and extensive planning, it nonetheless injects market efficiency into its policy designs, which enables the country to have one of the highest homeownership rates in the world, a world-class education system, and effective health care, often at a lower cost than in other high-income countries.

Work over welfare

Singapore's economic record is connected to a unique approach to social policy. In contrast to European welfare states, Singapore has always eschewed universal entitlements on the basis that they are counterproductive and even harmful. It has always prioritized economic growth over the redistribution of wealth and incomes. It prioritizes economic growth based on the belief that a growing economy provides economic opportunities for all, including the least well-off. This is not to say that the Singapore state does not provide any social assistance, but rather that its approach to doing so is guided by a pro-growth orientation and a larger culture of individual responsibility, a belief that is not only held by political elites, but by the populace at large. The design of various social assistance schemes has always been done with the view that individuals should never be discouraged from being gainfully employed and that government assistance should never be the sole and first source of help. Therefore, even though social assistance exists in Singapore, its underlying design is distinctive in a world where universal entitlements and expansive welfare states are the norm.

Statistically, Singapore has exercised fiscal prudence when it comes to social assistance. The country has kept total government spending at relatively low levels, below 15 percent of GDP on average recently, which is down from 25 percent in the 1980s and 20 percent in the late 1990s. This contrasts with total government expenditures in OECD countries regularly exceeding 40 percent of GDP (Abeyasinghe, 2015). Crucially, social spending in Singapore has consistently hovered around 6.4 percent of GDP (Abeyasinghe, 2015: 45) compared to approximately 20 percent in EU countries.

Key to understanding Singapore's social policy and its associated institutions is its central conviction that universal welfare provision is harmful. The personal values of founding father Lee Kuan Yew continue to cast a long shadow and are best captured by his personal observations of Western welfare systems:

Watching the ever-increasing costs of the welfare state in Britain and Sweden, we decided to avoid this debilitating system. We noted by the 1970s that when governments undertook primary responsibility for the basic duties of the head of a family, the drive in people weakened. Welfare undermined self-reliance. People did not have to work for their families' well-being. The handout became a way of life. The downward spiral was relentless as motivation and productivity went down. People lost the drive to achieve because they paid too much in taxes. They became dependent on the state for their basic needs. (Lee, 2000: 104)

Lee Kuan Yew and the Singapore government did not criticize the welfare state merely out of a populist desire to differentiate Singapore from its colonial predecessor. These denunciations were based on the belief that individual initiative should be preserved. In a famous 2004 speech directed at British delegates at a conference, Lee observed that "cradle-to-grave welfarism had blunted the ambition of many budding entrepreneurs. Worse, high personal taxes dampened the desire of many to achieve wealth and success" (Lee, 2004, January 8). Lee envisioned a society where the desire to help the poor should not blunt the achievements of enterprising individuals and where the path-dependent harms of a welfare state could be avoided:

We have used to advantage what Britain left behind: the English language, the legal system, parliamentary government, and impartial administration. However, we have studiously avoided the practices of welfare state. We saw how a great people reduced themselves to mediocrity by levelling down. The less enterprising and less hardworking cannot be made equal simply by cutting down the achievements of the enterprising and the striving. And we have seen how difficult it is to dismantle a system of subsidized living once people get accustomed to a government providing for them. (Lee 1985/2013: 138).

The centrality of work is not mere rhetoric in Singapore but is reflected in many of its key social policies. One of the most striking examples is encapsulated in the name of a key piece of the transfer payment scheme: Workfare. Motivated by the belief that transfer

payments should not be overly generous, workfare payments are conditional on the individual being employed, and for those who struggle to do so, on their taking skills upgrading.

While in typical social policies the focus of welfare seeks to provide temporary relief for the unemployed or the least well off, workfare—with the emphasis on *work*—seeks to encourage low-skilled workers to find work and to upgrade themselves in order to increase their earning power. It has two components. The first is an income supplement that tops up a low-wage worker's monthly income, a supplement that is unavailable to the unemployed (Singapore, 2023). The second component, Workfare Skills Support, encourages low-wage workers to undertake training by providing them with training allowances for selected courses and a cash reward for completing training.

Central Provident Fund

A cornerstone of Singapore's social welfare system is the Central Provident Fund (CPF) scheme, essentially a compulsory forced savings scheme that workers and employers must pay into regularly. While it started simply as a pension scheme, it has incorporated innovations that have made it an exemplar for other countries to follow.

Origins of CPF

An understanding of CPF is incomplete without a review of its origins, which also sheds light on the emphasis on fiscal responsibility to which subsequent governments of Singapore have adhered closely. At a time when welfare states were on the rise, the Singapore government preferred a fully funded model to ensure scarce funds would not be wasted (Chia, 2016).

In the early 1950s, most of Singapore's labour force did not have access to social welfare and either depended on their children or their savings for retirement. The colonial government realized the dire need for retirement funds in view of the abysmal socioeconomic conditions. In 1951, the colonial government commissioned a team headed by F.S. McFadzean to examine the “desirability and practicality of ensuring the payment to wage earners the benefit of retirements” (Retirement Benefits Commission, 1952: 10). From the onset of McFadzean's investigation, two types of social security systems were considered: a provident fund (a defined contribution system) or a social pension (a defined benefit system). The latter was deemed more desirable as it could provide regular monthly cash payments to members within a full year of operation. It also allowed for risk-pooling which the World Health Organization (WHO) defines as “the management of large financial resources so large that unpredictable individual financial risks become predictable and are distributed among all members of the pool” (World Health Organization, 2010). Unlike the central provident system where there is a one-to-one correspondence between individual contributions and benefits, risk pooling provides financially strapped households with financial protection.

After careful consideration of the merits and attendant concerns, the commission favoured a retirement pension scheme, i.e., a defined benefit system. The proposed pension system would provide standard monthly lump sum payments independent of workers' wages. However, the British colonial government rejected the pension proposal and adopted the provident fund framework. In the Central Provident system a member's benefits equalled his or her contributions plus interest accrued, whereas a pension fund involved some pooling and inequity (Low and Aw, 1997). The chosen framework was congruous with the Employees' Provident Fund implemented four years earlier in Malaya. However, it was more likely favoured because the colonial government did not want to use scarce public revenues earmarked for social services such as housing and health care for pensions. The self-funding principle relieved the colonial government from its financial responsibility of ensuring these old-age provisions. This turned out to be an "abiding blessing" for Singapore (Low and Aw, 1997: viiii).

An important turning point was the fact that the People's Action Party (PAP), newly elected in 1959, strongly emphasized the conservative principle of self-reliance which started to filter into various aspects of policymaking. In fact, the PAP's rise in the political environment of the 1950s shifted the climate of opinion towards an acceptance of the fully funded model. In Singapore's early years, then Minister Rajaratnam (1982) memorably warned Singapore against adopting the European welfare state model:

One consequence (of a welfare state approach) would have been that we would over the years have conditioned people to adopt a philosophy of life which will, as has happened in many countries, inevitably bring about their more, political and economic decline. Once people believe that the government will provide everything then they lose the faculty of self-reliance, of personal initiative and of learning to do things for themselves. And most important of all people lose a quality essential to keep a community together – the impulse to work not just for oneself but also for the betterment of one's fellowmen. In a society where helping one's fellow men is made the sole responsibility of government then there is no obligation or incentive for ordinary citizens to help others. They get into the habit of just looking after their own welfare. (Rajaratnam, 1982)

How it works

Legislated in 1955, the Central Provident Fund (CPF) was designed to provide post-retirement security through a fully funded compulsory savings system. In the beginning, workers contributed 5 percent of their wages, with employers matching those contributions. These would then have supposedly provided for a modest retirement income years later. After independence in 1965, the Singapore government expanded the scheme by raising the combined mandatory contribution rates from the original 10 percent to a peak of 50 percent during 1984-85, before lowering them again.

Table 1.3 lists the percentage that employers and employees contributed to the fund between 1955 and 1986.

Table 1.3: Employer and Employee Contribution Rates to Singapore's Central Provident Fund, 1955-1986 (%)

Year	Employer	Employee	Total	Year	Employer	Employee	Total
Jul 1955	5	5	10	Jul 1979	20.5	16.5	37
Sep 1958	6.5	6.5	13	Jul 1980	20.5	18	38.5
Jan 1970	8	8	16	Jul 1981	20.5	22	42.5
Jan 1971	10	10	20	Jul 1982	22	23	45
Jul 1972	14	10	24	Jul 1983	23	23	46
Jul 1973	15	11	26	Jul 1984	25	25	50
Jul 1974	15	15	30	Jul 1985	25	25	50
Jul 1977	15.5	15.5	31	Apr 1986	10	25	35
Jul 1978	16.5	16.5	33				

Source: Chia, 2016: 24.

The CPF is a fully funded mandatory system to which working Singaporeans and their employers make regular and monthly contributions to the respective accounts. An individual's CPF account is broken down into three different sub-accounts, each with a different function. For the purpose of accumulating retirement savings, monies are left in the Special Account (SA). Medisave (MA) is earmarked for health care expenses and can be used for a select number of medical scenarios, surgeries, and treatments. The third and unique aspect of the CPF is the Ordinary Account (OA), from which funds can be withdrawn, within certain limits, for pre-retirement uses—the most common being to defray the cost of housing. Thus, the CPF system is not merely a pension plan ensuring that individuals can retire comfortably, but also acts as a savings account to help individuals defray critical expenditures in health care and housing.

Singapore's innovation was the way it funded social services and infrastructure construction. Several important national policies have been tied to the CPF system. By allowing working Singaporeans to draw on a portion of their accounts before retirement for sanctioned purposes including mortgage payments, medical care, and even investment in a variety of approved financial instruments under the CPF Investment Scheme, the CPF integrates various policy areas. By doing so, the CPF also connects the various pillars of Singapore's social safety net: asset building, home ownership, health care, employment, and education (Sim, Ghoh, Loh, and Chiu, 2015: 3).

What's unique about CPF?

The achievements of the CPF system are not accidental and flow from certain design principles that other nations should consider. There are several key features to note. First, because it is a fully funded pension scheme, CPF funds are not financed from current income, which enables the government to keep the population's tax burden reasonably

low. Since the CPF premium payments are not considered a tax but rather as the individual's personal savings, there will be less of a labour market distortion than would be the case with typical income taxes and therefore greater labour force participation (Kune, 2001: 421). The CPF's structure also means that Singapore can avoid the politics of redistribution that typically accompany pay-as-you-go systems. Second, the CPF's mandatory nature involves an element of state paternalism—it assumes that state intervention is needed to ensure every individual has sufficient savings lest reckless consumption occurs. Third and importantly, by also tying the funds to housing and health care, the CPF provides a strong incentive for individuals to save and accumulate funds in the hopes of improving their health and housing options.

By maintaining a healthy CPF balance, individuals will be able to fund their own medical expenses and support their family members to get an education and pay for their health care expenses. Health care particularly is an area where self-responsibility is emphasized. In fact, there is a double emphasis on self-responsibility in that area. First, there are significant out-of-pocket health care expenses that individuals must pay for themselves. Second, a portion of the expenses may be funded by Medisave, which is part of an individual's accumulated CPF savings. The introduction of Medisave, which at the time was an innovative health savings account, was done with the conscious aim of getting individuals to take greater responsibility for their own health rather than leaving it to society at large:

We want to teach the people that the government is not a rich uncle. You get what you pay for. We are moving in the direction of making people pay for everything. As part of this policy, we recently introduced the Medisave programme. We want to disabuse people of the notion that in a good society the rich must pay for the poor. We want to reduce welfare to the minimum, restricted only to those who are handicapped or old. To the others we offer equal opportunities, and it is up to them what they make of it. Everybody can be rich if they try hard. In fact, we are even thinking of reducing income tax, as a substantial part of the taxes go for welfare. (Vasil, 1984: 168)

Clearly the principle of individual self-responsibility is at the heart of Singapore's CPF scheme and of its social welfare policymaking more generally. From the get-go, Singapore's leaders wanted to ensure that citizens were reliant on themselves primary for their own well-being and for their life choices around education, housing, and health care. According to Singapore's founding father Lee Kuan Yew:

The CPF has made for a different society. People who have substantial savings and assets have a different attitude to life. They are more conscious of their strength and take responsibility for themselves and their families. They are not attracted to the "buffet syndrome" where, after paying a health insurance premium, you consume as much in medical investigations and procedures as you or your doctor can think of. (Lee, 2000: 105)

Conclusion

One should exercise caution when learning from the Singapore case. Due to the complexities involved, it would be difficult to copy Singapore's model of governance wholesale, nor should anyone wish to do so. Rather, the wiser path would be to draw discrete lessons from specific policy areas where Singapore has done well. On this note, what is worth learning from Singapore's history is the way it adapted British institutions and emphasized pragmatism, efficiency, and growth over unrealistic socialist ideals. These factors are not exhaustive or sufficient on their own for stellar economic development, but their underlying theory is worth understanding. Singapore's policymaking does not always conform to classical liberal principles but in the areas where it does converge with the market, liberal norms are striking and worth noting. This is clearly seen in the way Singapore's social policy has been designed with the over-riding principle of self-responsibility in mind; this model has achieved positive outcomes in education, housing, and health care—and at a low cost.

Singapore's political economy does not always adhere to consistent principles. The existence of market-based policies, the emphasis on the rule of law, and individual self-responsibility in social policy all co-exist simultaneously with pro-active government intervention through industrial policy. The Central Provident Fund itself is often considered a paradox: while it encourages self-responsibility, it does so through state paternalism. Whether Singapore is truly a free-market economy given the disconnect between its statist and market elements, and whether its system can be easily transplanted elsewhere will be discussed in the concluding chapter.

Notes

- 1 The People's Action Party (PAP) was the founding political party of independent Singapore and has remained the ruling party ever since.
- 2 There are various explanations for Singapore's economic growth and a later chapter in this volume explores the role of capital accumulation.
- 3 A higher value denotes less corruption.
- 4 The GFCI looks at 143 factors grouped into five categories (business environment, human capital, infrastructure, financial sector development, and reputation), that cumulatively measure the extent to which a country is attractive to investors and financial institutions (Z/Yen and China Development Institute, 2021).

References for Chapter 1

- Abeyasinghe, T. (2015). Lessons of Singapore's Development. In L. Lim (ed.), *Singapore's Economic Development: Retrospection and Relections* (World Scientific Publishing): 35-50.
- Ang, B.L. (2015). The Soul of Nation Building in Singapore. In D. Chan, *50 Years of Social Issues in Singapore* (World Scientific Publishing): 133-146.
- Central Provident Fund (1994-1995). *Annual Reports*. Central Provident Fund, Singapore.
- Centre for Liveable Cities (2017). *Working with Markets: Harnessing Market Forces and Private Sector for Development*. Centre for Liveable Cities, Government of Singapore.
- Chan, C.S. (2018, May 4). *Keynote Speech by Minister Chan Chun Sing at the Euro-Cham Europe Day Luncheon*. Ministry of Trade and Industry, Singapore. <<https://www.mti.gov.sg/Newsroom/Speeches/2018/05/Keynote-speech-by-Min-Chan-at-the-EuroCham-Europe-Day-Luncheon>>, as of March 7, 2023.
- Cheang, B. (2022). *Economic Liberalism and the Developmental State—Hong Kong and Singapore's Post-War Development*. Palgrave Macmillan.
- Chew, E., and E. Lee (1991). *A History of Singapore*. Oxford University Press.
- Chia, N.C. (2016). *Singapore Chronicles: Central Provident Fund*. Institute for Policy Studies and Straits Times Press.
- Chia, S.Y. (2005). *The Singapore Model of Industrial Policy: Past Evolution and Current Thinking*. Singapore Institute of International Affairs.
- Choy, D., and B. Cheang (2021). *Liberalism Unveiled: Forging A New Third Way In Singapore*. World Scientific Publishing.
- Ghesquière, H.C. (2007). *Singapore's Success: Engineering Economic Growth*. Thomson Learning.
- Haseltine, W. (2013). *Affordable Excellence: The Singapore Healthcare Story*. Brookings Institution Press.
- Heng, C.K. (2016). *50 Years Of Urban Planning In Singapore*. World Scientific Publishing.
- Heritage Foundation (2021). *Economic Freedom Index*. Heritage Foundation <<https://www.heritage.org/index/>>, as of March 7, 2023.
- Huff, W.G. (1995). What is the Singapore model of economic development? *Cambridge Journal of Economics* 19, 6: 735-759.
- Huff, W.G. (1997). *The Economic Growth of Singapore: Trade and Development in the Twentieth Century*. Cambridge University Press.
- Kuné, J.B. (2001). The Controversy of Funding versus Pay-As-You-Go: What Remains of the Debate? *The Geneva Papers on Risk and Insurance-Issues and Practice* 26, 3: 418-434.

- Lee, Kuan Yew (2000). *From Third World to First: The Singapore Story, 1965-2000*. Marshall Cavendish International Asia Pte.
- Lee, Kuan Yew (2004, January 8). Address by Senior Minister Mr Lee Kuan Yew at the 50th Anniversary Dinner of the British Chamber of Commerce at Shangri-La Hotel, Singapore, Thursday, 8 January 2004, 8pm. Press Release. National Archives of Singapore. <<https://www.nas.gov.sg/archivesonline/data/pdfdoc/2004010803.htm>>, as of March 6, 2023.
- Lee, Kuan Yew (2013). *The Wit & Wisdom of Lee Kuan Yew*. Editions Didier Millet.
- Lee, S.A. (2016). Governance and Economic Change in Singapore. In L. Lim, *Singapore's Economic Development: Retrospection and Reflections* (pp. 17-33). World Scientific Publishing.
- Li, J.S. (2017). *Successful Technical Advisers: Albert Winsemius as a Case Study*. Commentary (June 23). Head Foundation. <<https://headfoundation.org/2017/06/23/successful-technical-advisers-albert-winsemius-as-a-case-study/>>, as of March 7, 2023.
- Lim, L. (1993). Singapore's Success: The Myth of the Free Market Economy. *Asian Survey*: 752-764.
- Lim, L. (2016). Fifty Years of Development in the Singapore Economy: An Introductory Review. In L. Lim, *Singapore's Economic Development: Retrospection and Reflections* (World Scientific Publishing): 1-16.
- Low, L. (1991). *The Political Economy of Privatisation in Singapore: Analysis, Interpretation and Evaluation*. McGraw-Hill.
- Low, L. (1993). The Public Sector in Contemporary Singapore: In Retreat? In Garry Rodan (ed.), *Singapore Changes Guard* (Longman Cheshire).
- Low, L. (1998). *The Political Economy of a City-State: Government-Made Singapore*. Oxford University Press.
- Low, L., and T.C. Aw (1997). *Housing a Healthy, Educated, and Wealthy Nation Through the CPF*. Institute of Policy Studies.
- Mauzy, D.K., and R.S. Milne (2002). *Singapore Politics Under the People's Action Party*. Routledge.
- Mehta, K.K. (2006). A Critical Review of Singapore's Policies Aimed at Supporting Families Caring for Older Members. *Journal of Aging & Social Policy* 18, 3-4: 43-57.
- Muller, J. (2018). *The Tyranny of Metrics*. Princeton University Press.
- Ng, Jing Yng (2013). PM: Getting politics right critical for S'pore. Today (July 8). <<https://www.todayonline.com/singapore/pm-getting-politics-right-critical-spore>>, as of March 6, 2023.
- Norton, S.W. (1998). Poverty, Property Rights, and Human Well-Being: A Cross-National Study. *Cato Journal*, 18.

- O'Driscoll, G.P., and L. Hoskins (2003). *Property Rights: The Key to Economic Development*. Policy Analysis number 482. Cato Institute. <<https://www.cato.org/policy-analysis/property-rights-key-economic-development>>, as of March 7, 2023.
- Ong, K.Y. (2010). *Singapore's Social Policies: Vision, Accomplishments, and Challenges*. Institute of Policy Studies. <<http://lkyspp.nus.edu.sg/ips/publications/archives/speeches>>, as of March 7, 2023.
- Owen, N. (2000). Economic and Social Change. In N. Tarling (ed.), *The Cambridge History of Southeast Asia: From World War II to the Present*, Volume 4 (Cambridge University Press): 139-200.
- Phang, S.-Y. (2018). *Policy Innovations for Affordable Housing In Singapore: From Colony to Global City*. Springer.
- Political and Economic Risk Consultancy (2022). *PERC's 2022 Report on Corruption in Asia*. Political and Economic Risk Consultancy. <<http://www.asiarisk.com/subscribe/dataindx.html>>, as of March 7, 2023.
- Quah, J.S. (2010). *Public Administration Singapore-style*. Emerald Group Publishing Limited.
- Rajaratnam, S. (24 April, 1982). *Speech by S Rajaratnam, Second Deputy Prime Minister (Foreign Affairs) and Member of Parliament for Kampong Glam, at a Dinner Held in Conjunction With the New Crawford Community Centre Building Fund at The Shangri-La Hotel*. Singapore National Archives. <<https://www.nas.gov.sg/archivesonline/data/pdfdoc/SR19820424s.pdf>>, as of March 7, 2023.
- Retirement Benefits Commission. (1952). *Report of the Retirement Benefits Commission*. Singapore Government Printing Office.
- Rodrik, D., A. Subramanian, and F. Trebbi (2004). Do Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. *Journal of Economic Growth* 9, 2: 131-165.
- Schwab, K. (2016-2019). *The Global Competitiveness Reports*. World Economic Forum.
- Sim, I., C. Ghoh, A. Loh, and M. Chiu (2015). *The Social Service Sector in Singapore*. Centre for Social Development (Asia). <https://www.charities.gov.sg/PublishingImages/Resource-and-Training/Publications/Books/Documents/NUS_CSDA_The%20Social%20Service%20Sector%20In%20Singapore%202015.pdf>, as of March 7, 2023.
- Sim, I., S. Thomson, and G. Yeong (2014). *The State as Shareholder: The Case of Singapore*. National University of Singapore Business School. <<https://www.cima-global.com/Documents/Our%20locations%20docs/Malaysia/Centre%20of%20Excellence/NUS%20-%20The%20State%20as%20Shareholder%20-%20compressed.pdf>>, as of March 7, 2023.
- Singapore. (1999). *Singapore: The Next Lap*. Times Editions, Government of Singapore.
- Singapore (2023). *About Workfare*. Workfare. Government of Singapore. <<https://www.workfare.gov.sg/about-workfare/about-workfare>>, as of March 6, 2023.

- Singapore, Department of Statistics (2021a). *M060181—Singapore's Balance Of Payments, (BPM6 Format), Annual*. Singapore Department of Statistics.
- Singapore, Department of Statistics (2021b). *M083791—Principal Statistics of Foreign Direct Investment in Singapore, Annual*. Singapore Department of Statistics.
- Singapore, Department of Statistics (2021c). *M810361—Key Indicators on Household Income from Work among Resident Employed Households, Annual*. Singapore Department of Statistics.
- Singapore, Ministry of Finance. (2002). *Budget Speech*. Ministry of Finance, Government of Singapore.
- Singapore, Ministry of Foreign Affairs. (2021). *International Organisations*. Ministry of Foreign Affairs, Government of Singapore. <<https://www.mfa.gov.sg/SINGAPORES-FOREIGN-POLICY/International-Organisations>>, as of March 7, 2023.
- Stewart, Dugald (1794). *Of the Inquiry into the Nature and Causes of the Wealth of Nations. Account of the Life and Writings of Adam Smith LLD*. Transactions of the Royal Society of Edinburgh.
- Tan, K., and M. Bhaskaran (2016). *The Role of the State in Singapore: Pragmatism in Pursuit of Growth*. In L. Lim, *Singapore's Economic Development: Retrospection and Reflections* (World Scientific Publishing): 51-82.
- Transparency International. (2020). *Singapore. Corruptions Perceptions Index*. Transparency International. <<https://www.transparency.org/en/cpi/2020/index/sgp>>, as of March 7, 2023.
- Tremewan, C. (2016). *The Political Economy of Social Control in Singapore*. Springer.
- Turnbull, C. (2009). *A History of Modern Singapore, 1819–2005*. National University of Singapore Press.
- Vasil, R. (1984). *Governing Singapore*. Eastern Universities Press.
- Visscher, S. (2007). *The Business of Politics and Ethnicity: A History of the Singapore Chinese Chamber of Commerce and Industry*. National University of Singapore Press.
- Wong, R.Y. (2015). *Hong Kong Land for Hong Kong People: Fixing the Failures of Our Housing Policy*. Hong Kong University Press.
- World Bank (2020a). *Business Enabling Environment*. World Bank. <<https://www.doingbusiness.org/en/rankings>>
- World Bank (2020b). *Worldwide Governance Indicators*. World Bank. <<https://info.worldbank.org/governance/wgi/>>, as of March 7, 2023.
- World Bank (2021). *World Bank Open Indicators*. World Bank.
- World Health Organisation [WHO] (2010). *Brief 4: Risk-Pooling Mechanisms*. WHO. <https://www.who.int/immunization/programmes_systems/financing/analyses/Brief_4_Risk-Pooling.pdf?ua=1>.

World Justice Project (2020). *Rule of Law Index 2020*. World Justice Project. <<https://worldjusticeproject.org/our-work/research-and-data/wjp-rule-law-index-2020>>, as of March 7, 2023.

Yong, C.F., J.A. Gonzalo, and M. Mar (2014). *Tan Kah-Kee: The Making of an Overseas Chinese Legend*. World Scientific Publishing.

Z/Yen and China Development Institute (2021). *The Global Financial Centres Index*. Z/Yen and China Development Institute. <https://www.longfinance.net/media/documents/GFCI_29_Full_Report_2021.03.17_v1.2.pdf>, as of March 7, 2023.

SINGAPORE'S ECONOMIC PERFORMANCE

Steven Gliberman

Introduction

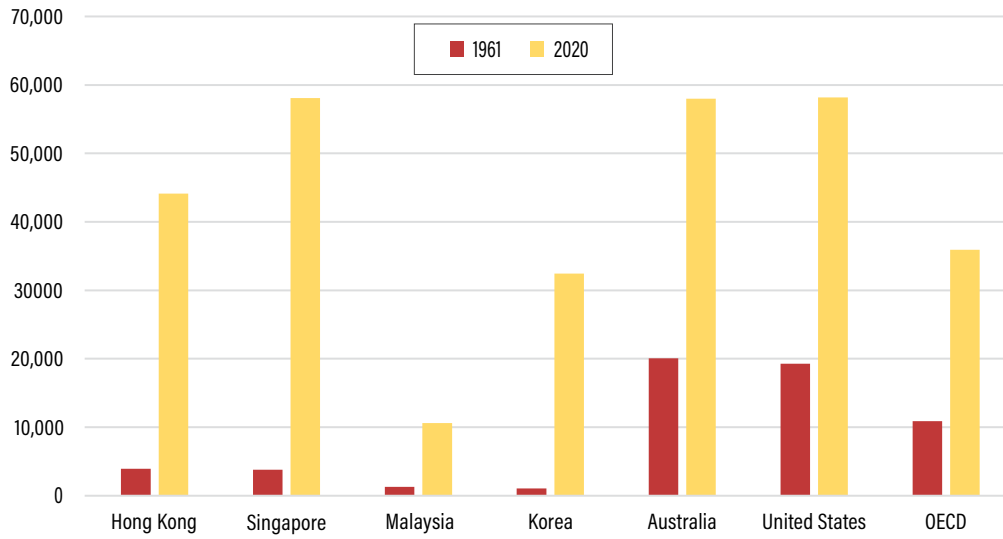
Singapore is known as one of the four Asian Tigers (Hong Kong, South Korea, Taiwan, and Singapore). These four countries have enjoyed remarkably rapid economic growth over the past half-century, such that they are considered models for economic development.¹ While the economic growth processes and government policies have differed over time across the Tigers, all have enjoyed remarkable economic success, as is detailed in this chapter, although the main focus of the chapter is Singapore's economic experience.

The remarkable growth of the standard of living of Singaporeans is illustrated by the statistics. In 2020, the real Gross Domestic Product (GDP) per capita for Singapore (US\$58,057) was virtually identical to the real GDP per capita of the United States (US\$58,190).² By comparison, Singapore's real GDP per capita in 1961 (US\$3,777 USD) was only about 20 percent of the United States' real GDP per capita in that year (US\$19,271). Indeed, Singapore's GDP per capita in 2020 was higher than those of any of the other Asian Tigers.³

Figure 2.1 reports real GDP per capita figures for Singapore and comparator countries including the US and the OECD countries as a whole.⁴ While Singapore started the period (1961) with a real GDP per capita well below those of the US, Australia, and the OECD, it had a higher real per capita GDP than Australia and the OECD by the end of the period (2020), and was virtually tied with the US, Singapore also started out with a lower real GDP per capita than Hong Kong's, but ended the period with a substantially higher real GDP per capita. The data reported in Figure 2.1 provide additional evidence of the noteworthy increase in the standard of living of Singaporeans.

In the remainder of this chapter, we shall discuss Singapore's economic performance across a variety of macro-economic measures over time and compare Singapore's performance with those of several other Asia-Pacific countries, as well as the US. Attempting to link Singapore's relative economic performance to public policies is beyond the scope of this chapter and is covered in other chapters in this volume. In particular, the introductory chapter to this volume discusses in detail Singaporean government economic policies since the city-state became independent. The introductory chapter makes it clear that government industrial

Figure 2.1: GDP per capita (constant US\$2015), 1961 and 2020



Sources: Author's calculations from World Bank data, <https://data.worldbank.org/indicator/SP.POP.TOTL>; and <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD>

policy was a significant feature of Singapore's economic development, in contrast to the minimalist government intervention into the economy in Hong Kong.⁵ However, while Singapore has never been a model of laissez-faire capitalism, it has been and continues to be a model of a political regime that provides strong protection of private property rights and openness to foreign investment. This, in turn, has encouraged substantial rates of investment in physical and human capital, which is a foundation of economic growth. Indeed, while the economic growth of other Asian countries has also been driven by capital accumulation, Singapore's rate of capital accumulation has been especially noteworthy.⁶

Real GDP growth

Arguably, the single most referenced measure of changes in real living standards is the growth of real GDP. The latter represents the inflation-adjusted value of goods and services produced in the domestic economy. Since the various inputs used in the production of goods and services are paid for the value of the outputs they create, the growth of real GDP approximates the growth of the real income earned by domestic factors of production. Faster growth of real GDP is therefore associated with faster growth of inflation adjusted income.⁷

Table 2.1 reports the growth of GDP in constant 2010 US dollars for each decade spanning the years 1961 through 2020 for Singapore and the comparator Asia-Pacific countries, including two of the other three Asian Tigers, Hong Kong and Korea. The growth rates reported for each decade are simply the percentage change between the beginning-year and end-year values for each sub-period. Table 2.1 also reports the average decadal growth rate in real GDP over the entire period 1961 to 2020 for each country.

Table 2.1: Change in GDP (constant US\$2015, percentage), 1961–2020

Country	Singapore	Hong Kong	Korea	Malaysia	Australia	United States
1961–1970	125.7	114.3	132.7	74.2	60.1	46.3
1971–1980	106.4	120.6	119.4	100.9	29.3	32.3
1981–1990	90.1	75.4	142.1	67.1	34.9	34.9
1991–2000	85.8	39.4	61.4	71.8	38.8	40.3
2001–2010	77.8	48.2	50.4	59.5	32.5	17.6
2011–2020	25.6	17.7	23.7	40.5	23.1	16.4
Mean	85.2	69.3	88.3	69	36.5	31.3
SD	33.8	41.7	49.3	19.8	12.8	12.1
CV	0.4	0.6	0.56	0.29	0.35	0.39

Note: Series for Hong Kong starts in 1962.

Source: Author's calculations from World Bank data, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD>

The data reported in Table 2.1 underscore Singapore's absolute and relative rapid rate of real economic growth over the full sample period, particularly for the period from 1961 to 2010. It thereby reinforces the data reported in Figure 2.1. Over the entire sample period, only Korea enjoyed a faster average decadal growth rate of real GDP (88.3 percent), compared with Singapore's average annual growth rate of 85.2 percent. Singapore's average decadal growth rate was notably faster than that of Hong Kong over the sub-periods for which data are available for the two city-states. The pattern for Singapore of a consistently declining rate of growth over the decades is not precisely matched by those of the other sample countries. However, the three Asian Tigers are similar in the deceleration of their rates of real economic growth when comparing the decades from 1961 to 1990 with the decades from 1991 to 2020.

The consistency of the rate of real economic growth is also a relevant measure of economic welfare. Since workers and investors are generally risk averse, relatively stable economic growth should be preferable to growth marked by relatively large deviations from the mean rate of growth, particularly if relatively large deviations mean that workers and investors incur unwanted burdens, such as holding a larger share of their savings in lower-yielding liquid assets; e.g., cash, as a precaution against episodes of unemployment or equity market declines.

The standard deviation of a series of numbers is a conventional measure of the constancy of the series. Of course, if the numbers of one series are absolutely larger than the numbers of a second series, the standard deviation of the first series will likely be larger than the standard deviation of the second series, solely as an artifact of the difference in the units of measurement. Hence, researchers often use the coefficient of variation (CV) as a measure of the variability of a series of numbers around the mean value of the series.

The CV is the ratio of the standard deviation to the mean value of the series. A lower CV denotes a more stable series.

The CVs for the decadal GDP growth rates for each of the sample countries are reported below the values for the standard deviations in Table 2.1. It can be seen that the CV of Singapore is well below those of Hong Kong and Korea, above those of Malaysia and Australia and the same as that of the US. Hence, over the period 1961–2020, only Korea enjoyed a faster rate of real economic growth, while only Malaysia and Australia experienced noticeably more stable rates of economic growth.

Growth in real GDP per capita

A second standard measure of changes in a country's standard of living is the growth in real GDP per capita. This measure essentially adjusts the growth of real GDP for the growth of the population. Obviously, to the extent that real GDP growth simply reflects the growth of the labour force which, in turn, reflects the growth of the underlying population, the real standard of living of a country might not have increased. In effect, the growth in real GDP per capita approximates the growth of labour productivity, to the extent that the ratio of the labour force to the total population remains approximately constant.

Table 2.2 reports estimated values for the growth rate of real GDP per capita for the decades from 1961 to 2020. Again, the reported growth rates are simply the percentage increase from the beginning period value to the end period value for each sub-period. As is the case for the growth rate of real GDP, the economic performances of the three Asian Tigers (Singapore, Hong Kong and South Korea) are remarkable. Over the entire period, each achieved an average decadal growth rate of real GDP per capita exceeding 45 percent, with South Korea leading the group with a 70 percent average decadal rate of growth. Singapore noticeably trailed South Korea's rate of per capita GDP growth; however, it exceeded Hong Kong's growth rate and was well above the average annual growth rates of the other countries included in Table 2.2.

The Asian Tigers experienced their fastest rate of real GDP growth per capita over the decade 1971–1980 and their slowest rate of growth over the most recent decade 2011–2020. Singapore's growth rate declined consistently with each decade, although its per capita GDP growth rate was still almost twice that of Hong Kong from 2011 to 2020. Furthermore, the coefficient of variation for Singapore's growth rate over the entire period was well below the coefficient of variation for Hong Kong and comparable with Korea's. Indeed, only Malaysia had a substantially lower relative variability of per capita real GDP growth compared with Singapore's; however, Singapore's average decadal growth rate of GDP per person over the period 1981–2020 (55.2 percent) was almost 50 percent greater than Malaysia's average decadal growth rate.

To be sure, real GDP per capita can be relatively high while a significant percentage of the population suffers from relatively low per capita incomes. In this regard, it has been noted that the share of GDP going to labour in Singapore in the form of wages is lower

Table 2.2: Change in GDP per capita (US\$2015, percentage), 1961–2020

Country	Singapore	Hong Kong	Korea	Malaysia	Australia	United States
1961–1970	85.2	71.5	85.3	35.7	34.2	31.1
1971–1980	80.6	76.3	84.4	61.2	13.9	20.9
1981–1990	57.9	59.4	118.7	30.9	18.1	24.1
1991–2000	42.9	20.3	65.4	37.2	25.3	25.9
2001–2010	50.1	41.3	43.8	34.1	16.8	8.3
2011–2020	14.5	11.3	23.7	24.4	7.1	9.4
Mean	55.2	46.7	70.2	37.3	19.2	20.0
SD	26.03	27.0	33.7	12.6	9.4	9.2
CV	0.47	0.58	0.48	0.34	0.49	0.46

Note: Series for Hong Kong starts in 1962.

Source: Author's calculations from World Bank data, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD>;

than the shares of most developed economies, including the shares in Hong Kong and South Korea. Some argue that this shows that workers in Singapore are underpaid, and that Singapore's economic growth has disproportionately benefited owners of capital.⁸ An analysis by the Government of Singapore identifies substantial differences in wage shares across industry sectors. Specifically, labour-intensive service sectors tend to have higher wage shares than capital-intensive manufacturing sectors, as might be expected. In this regard, Ng (2015) notes that Singapore's economic development model has favoured the growth of capital and technology-intensive sectors, which helps explain the relatively high per capita income and relatively low share of income going to labour in Singapore. Ng also argues that unevenly distributed economic growth has led to the emergence of a class of working and non-working poor in Singapore, and that the government has recognized the need for more income redistribution through the tax system.

Inflation

To the extent that inflation reduces overall efficiency in an economy by, among other things, distorting saving and investing decisions by making relative prices less informative for market participants, the consequences of inflation will be incorporated into a country's real economic growth performance. However, inflation by itself is an important measure of macro-economic performance, since it also affects the distribution of income and wealth. In particular, unanticipated inflation transfers wealth from lenders to borrowers, and from owners of fixed income assets to owners of real assets such as real estate, among other transfers.

If even high rates of inflation are accurately anticipated, income and wealth transfers should be relatively modest, since economic agents will incorporate anticipated inflation

into their employment, saving and investment decisions, so that changes in the overall nominal price level will not necessarily affect relative prices, including the real rate of interest. However, evidence suggests that market participants, including professional investors, do a relatively poor job in forecasting even short-run inflation (Kliesen, 2015). The difficulty in accurately forecasting inflation is likely to be exacerbated by marked variability in the actual rate of inflation.

Table 2.3 reports the inflation experiences of five of the six countries comprising the samples in tables 2.1 and 2.2.⁹ Specifically, it reports the average annual percentage change in the Consumer Price Index (CPI) for each of the decades spanning the period 1961–2020. The CPI is a broad and widely cited measure of inflation that reflects changes in the average price level for a large basket of goods and services purchased by consumers. With respect to inflation, Singapore’s performance is outstanding. Its average annual rate of inflation over the full period of data is well below those of the other sample countries. In comparison with its closest competitor when it comes to economic growth (i.e., South Korea), Singapore’s average annual inflation rate over the period from 1961 to 2020 was approximately 5.3 percentage points per annum below that of South Korea. This latter result is primarily due to the much lower inflation rate experienced by Singapore during the global inflation-prone years from 1961 to 1980.

Table 2.3 reports the average annual rate of inflation for the sample countries over the full sample period, as well as the standard deviation and coefficient of variation for the inflation series reported in the table. For reasons discussed earlier, the coefficient of variation is a preferred measure of relative variability when comparing times series characterized by different absolute values. In this regard, Singapore’s coefficient of variation for inflation is well above the coefficients of the other sample countries. Hence, and somewhat

Table 2.3: Consumer Price Index, (average annual percentage), 1961–2020

Country	Singapore	Hong Kong	Korea	Malaysia	Australia	United States
1961–1970	1.11	-	13.99	0.92	2.49	2.78
1971–1980	6.73	-	16.48	5.99	11.36	7.86
1981–1990	2.28	-	6.39	3.24	8.12	4.73
1991–2000	1.73	-	5.10	3.56	2.23	2.80
2001–2010	1.63	-	3.19	2.19	3.01	2.39
2011–2020	1.45	-	1.57	1.98	1.99	2.00
Mean	2.47	-	7.69	2.97	4.82	3.73
SD	3.99	-	7.29	2.89	4.16	2.76
CV	1.62	-	0.95	0.97	0.86	0.74

Note: Series for Hong Kong is unavailable prior to 1982.

Source: Author’s calculations from World Bank data, Inflation, consumer prices (annual %), <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>

surprisingly, while Singapore enjoyed a relatively low rate of inflation over the sample time period, it experienced more relative volatility in its inflation performance.

Unemployment

Yet another standard measure of a country's macroeconomic performance is its record regarding unemployment. The conventional interpretation is that a country is performing better the lower its rate of unemployment, other things constant. The unemployment rate measures the percentage of the labour force that is not working but is looking for work at "prevailing wages." To be sure, some percentage of workers that are classified as unemployed may be more actively looking for work in one country than in another. Nevertheless, significant differences over time in unemployment rates across countries are meaningful indicators of differences in labour market efficiency across countries.

Table 2.4 reports the average annual unemployment rate for the three Asian Tigers for which data are available, as well as for Malaysia, Australia and the US. In the case of the unemployment rate, comparable data are available commencing in 1981. The average annual unemployment rates for the three countries are reported separately for each of the four decades spanning the period 1981–2020. As well, the mean, standard deviation, and coefficient of variation are reported for each country for the entire period 1991–2020. The reported data show that the average annual unemployment rate for Singapore over the entire sample period was below those for other comparator countries. Moreover, Singapore experienced less absolute variability in unemployment compared with the other two tigers.

Capital investment

Investment in capital equipment, particularly machinery and equipment, and intellectual property products such as software, is an important input into real economic growth.

Table 2.4: Unemployment rate (average annual percentage), 1981–2019

Country	Singapore	Hong Kong	Korea	Malaysia	Australia	United States
1981–1990	4.05	2.72	3.51	7.63	7.67	7.12
1991–2000	1.98	3.17	3.51	3.38	8.72	5.60
2001–2010	2.88	5.46	3.55	3.45	5.37	6.11
2011–2019	2.04	3.21	3.53	3.19	5.42	5.84
Mean	2.74	3.64	3.53	4.41	6.80	6.17
SD	0.97	1.23	0.019	2.15	1.67	0.67
CV	0.35	0.34	0.005	0.49	0.25	0.11

Note: Series for Malaysia starts in 1985

Source: Author's calculations from World Bank data, unemployment, total %

Increases in physical capital equipment directly increase the productivity of labour, since physical capital is a complementary input to labour.¹⁰ Since new technology is often embodied in machinery and equipment and intellectual property products, capital investment can indirectly promote economic growth by facilitating the introduction and spread of new technology.

Table 2.5 reports gross fixed capital formation as a share of GDP, expressed as a percentage, for three of the Asian Tigers (Singapore, Hong Kong and Korea), as well as for Malaysia. By way of comparison with countries that began the sample time period with much higher per capita incomes than did Singapore, data is also reported for the US and Canada (data on gross domestic capital investment for the US is unavailable for the beginning of the sample time period). The variable is also reported for the OECD countries starting in 1971.

While the ratio of gross fixed capital formation as a share of GDP varies from year to year, the data reported in Table 2.5 gives a reasonably reliable description of Singapore's long-run investment performance, compared with the other countries for which the variable is reported. From 1971 to 2001, gross domestic product as a share of GDP for Singapore substantially exceeded those of the other countries in Table 2.5. From 2001 to 2020, only Korea consistently exceeded Singapore in this measure of investment intensity. It is not surprising that investment intensity in the Asian Tigers would be relatively high in the middle to late decades of the twentieth century. The expected rate-of-return on capital investments should be higher in developing countries than in developed countries, other things constant, because the ratio of capital to labour will be much lower in developing countries than in developed countries. Hence, the fact that Singapore's capital intensity was outpaced only by Korea's in the first two decades of the twenty-first century, even after Singapore's per capita income level exceeded the level in all but the US, is an impressive testimony to Singapore's enduring favourable environment for investment.

Table 2.5: Gross capital formation (percentage of GDP), 1961–2020

Country	1961	1971	1981	1991	2001	2011	2020
Singapore	12	40	45	34	28	27	23
Hong Kong	24	24	35	27	25	24	19
Korea	13	25	32	34	32	33	32
Malaysia	14	21	35	38	24	23	20
Australia	33	32	29	24	23	27	23
Canada	23	23	25	19	20	24	22
United States	n/a	21	24	20	22	19	21
OECD	n/a	26	26	25	23	22	22

Source: World Bank, gross capital formation (% of GDP). <https://data.worldbank.org/indicator/NE.GDL.TOTLZS?locations=SG>

Table 2.6: Trade (percentage of GDP), 1961–2022

Country	1961	1971	1981	1991	2001	2011	2022
Singapore	299	259	400	324	349	379	321
Hong Kong	174	175	183	232	241	422	352
Korea	18	36	66	50	62	106	69
Malaysia	90	79	111	159	203	155	116
Australia	27	26	32	32	44	42	44
Canada	36	41	52	49	78	62	61
United States	n/a	11	19	20	23	31	23
OECD	n/a	25	37	35	46	56	52

Source: World Bank, trade (% of GDP), <https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS>

Trade

Openness to trade is another prominent feature of Singapore's economic experience. That both Singapore and Hong Kong have been entrepot centres for decades is well known, and Table 2.6 underscores how prominent a feature international trade has and continues to be in the cases of these two Asian Tigers. Specifically, exports plus imports as a share of GDP in the cases of Singapore and Hong Kong have been remarkably high—both absolutely and relative to the other locations listed in Table 2.6. Openness to import competition can be expected to promote innovation and productivity growth on the part of domestic firms, while success in export markets obliges domestic firms to be competitive with foreign firms in terms of both price and quality of the exported products.

Concluding comments

While it is a matter of debate whether Singapore economically outperformed other South-East Asian Tigers over the long period from 1961 to 2020, there is no question that the development of Singapore's economy has been remarkable, in spite of the fact that at the end of World War II, the East Asian region was among the poorest in the world.

There is also debate about the precise contributors to the economic performance of Singapore and the other Tigers. As discussed in Chapter 1, there was and continues to be substantial government intervention in the Singaporean economy. Toma (2019), among others, contrasts Singapore's experience to that of Hong Kong, which was characterized by a relatively low level of government intervention.¹¹ Yet, as discussed in Chapter 1 and by Toma, market forces still played a major role in the economic growth of Singapore as well as that of the other Asian Tigers. Relatively low tax rates, openness to foreign trade and investment and the rule of law and protection of private property rights have been particularly important features of Singapore's economic environment.¹² A well-educated and hard-working labour force has also been a major contributor to Singapore's

impressive economic performance. Indeed, the World Bank’s Human Capital Project, which attempts to quantify the contribution of health and education to future labour productivity, ranked Singapore first among 174 countries on this overall metric in 2022.¹³

As the introductory chapter to this volume discusses, Singapore’s political leaders have been committed to the goal of promoting economic growth and ensuring that the tax system encourages productive work and investments in physical and human capital.¹⁴ Singapore’s economic record indicates that this commitment has been successful. As noted above, economic growth in Singapore has been accompanied by a widening disparity in the overall distribution of income across households, although the pattern of disparity is in line with trends observed in countries such as Hong Kong, Taiwan, Korea and the US—at least for the period 1990–2000 (Lim and Soo, 2015). The emphasis on self-reliance as an underlying social philosophy underlies the prioritization of investing in human capital, and it has also been a pervasive influence on the design of social and income support programs. Whether and to what extent a growing concern about more “inclusive” economic growth will lead to a more universalist approach to social and income support programs remains to be seen.

Notes

- 1 Hong Kong and Singapore are more accurately characterized as city-states, although, for convenience, they are identified as national entities. For an overview of the different growth paths of the Asian Tigers, see Toma (2019). For a detailed discussion of Singapore’s economic history, see the introductory chapter to this volume.
- 2 Real GDP figures are expressed in 2015 US dollars.
- 3 GDP and population estimates are from the World Bank. Since the World Bank classifies Taiwan as a province of China for purposes of reporting data, it does not report GDP data separately for Taiwan.
- 4 The OECD is an international organization comprising 38 relatively wealthy countries.
- 5 For a detailed comparison of government economic policies in Singapore and Hong Kong, see Young (1992). For an extensive discussion of the extensive role that the government has played in Singapore’s economic development, see Lim and Ann (2015).
- 6 Vu (2013) argues that Singapore’s pattern of growth driven by capital accumulation is typical of successful Asian developing economies. Young (1992) argues that Hong Kong’s economic growth was driven more by increases in total factor productivity than by capital accumulation.
- 7 Gross Domestic Income (GDI) and Gross Domestic Product (GDP) are conceptually equivalent in terms of national income accounting, with minor differences related to different sources of data used in each calculation.
- 8 For a discussion of this issue and evaluation of some evidence, see Government of Singapore (2013).
- 9 Inflation data for Hong Kong was unavailable prior to 1982.
- 10 Inputs are complementary to the extent that an increase in one input raises the productivity of other inputs.
- 11 Toma notes that South Korea’s growth was also marked by substantial government intervention, particularly in the formation of huge government-sponsored industrial conglomerates. Huff (1995) also notes that there was an extensive amount of government intervention in the Singaporean economy, but that it was not rigid intervention and planning. Lim and Soo (2015) highlight generous tax breaks and subsidies for foreign investors as greatly increasing the attractiveness of Singapore as an investment location for foreign companies.

- 12 Woo (2018) characterizes Singapore's economic development policies as deriving from neoliberal economic principles of free markets and economic liberalization, while also acknowledging its characterization as a soft totalitarian state.
- 13 For a discussion of this project, which commenced in 2018, and the detailed results for 2022, see the World Bank (2022).
- 14 Lim and Soo (2015) argue that rewarding Singapore government officials for delivering GDP growth—economically, through salaries and bonuses, and politically, through promotion into the ruling party hierarchy—has led to a fetishism for growth.

References for Chapter 2

- Government of Singapore, Ministry of Trade and Industry (2013). A Look at Wage Share and Wages in Singapore. <<https://www.mti.gov.sg/Resources/feature-articles/2013/A-Look-at-Wage-Share-and-Wages-in-Singapore>>, as of November 14, 2023.
- Huff, W.G. (1995). What Is the Singapore Model of Economic Development? *Cambridge Journal of Economics* 19 (6): 735–759.
- Kliesen, Kevin (2015). How Accurate are Measures of Long-Term Inflation Expectations? Federal Reserve Bank of St. Louis. *Economic Research* 9. <<https://research.stlouisfed.org/publications/economic-synopses/2015/05/06/how-accurate-are-measures-of-long-term-inflation-expectations/>>, as of November 14, 2023
- Lim, Linda Y.C., and Lee Soo Ann (2010). Globalizing State, Disappearing Nation: The Impact of Foreign Participation in the Singapore Economy. In Terence Chong (ed.), *Management of Success: Singapore Revisited* (ISEAS Publishing). <<https://doi.org/10.1355/9789814279864>>, as of Nov. 16, 2023.
- Ng, Irene (2015). Being Poor in a Rich Nanny State: Developments in Singapore Social Welfare. *World Scientific* 60 (3). <<https://www.worldscientific.com/doi/10.1142/S0217590815500381>>, as of November 9, 2023
- Toma, Sorin-George (2019). Learning From the Asian Tigers: Lessons in Economic Growth. *Annals- Economy Series* 3: 63–69. <<https://ideas.repec.org/a/cbu/jrnlec/y2019v3p63-69.html>>, as of November 11, 2023.
- Vu, K.M. (2013). *The Dynamics of Economic Growth: Policy Insights from Comparative Analyses in Asia*, Cheltenham, UK: Edward Elgar.
- Woo, J.J. (2018). *The Evolution of the Asian Developmental State: Hong Kong and Singapore*. London, UK: Routledge.
- World Bank (2022). Human Capital Project. <<https://www.worldbank.org/en/publication/human-capital>>, as of November 10, 2023.
- Young, Alwyn (1992). A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore. In Olivier Jean Blanchard and Stanley Fischer, eds. *NBER Macroeconomic Annual 1992 Volume 7*. National Bureau of Economic Research and Massachusetts Institute of Technology. University of Chicago Press Journals: 13-64. <<https://www.nber.org/books-and-chapters/nber-macroeconomics-annual-1992-volume-7>>, as of November 9, 2023.

THE SINGAPOREAN HEALTH CARE SYSTEM: POLICY AND PERFORMANCE

Bacchus Barua and Mackenzie Moir

Introduction

Singapore’s approach to universal health care represents a departure from much of the developed world in terms of design and philosophy. Although it shares features of tax-funded systems (where government is the primary insurer), and social health insurance systems (with competitive insurance markets), Singapore’s mixed multi-payer health-care system is, arguably, unique.

Universal coverage for health care is provided through a combination of programs collectively known as the “3Ms.” These Ms include a mandatory, universal, basic insurance scheme, which requires (tax-subsidized) premium payments (Medishield Life), and a government investment fund, which serves as a safety net for the poor (MediFund). Perhaps of most interest, however, is the third M, MediSave. Singaporeans are required to set aside part of their income (4 to 10.5 percent per month) in this compulsory national savings scheme, which is tax exempt and earns interest (4 to 5 percent per year). Withdrawals can be made to pay for medical expenses such as premiums, cost-sharing payments, and care received in private hospitals.

Singapore also has a permissive private insurance marketplace that allows coverage for core services, as well as expanded choice and faster access—an approach that is in line with the vast majority of universal health-care systems.

Like the majority of universal health-care systems around the world, cost-sharing is a key component of Singapore’s health-care system. MediShield Life coverage is subject to a deductible, after which co-insurance rates are applied to the cost of care. Co-payments are also routinely required for outpatient care.

Acute care is delivered in both public and private hospitals (an estimated 39 percent of hospitals operated on a for-profit basis in 2020). Public hospitals are technically corporations owned by the government, and they are funded using a combination of activity-based payments and block grants. Specialists working in the public sector are allowed to see private and public outpatients in hospital clinics and National Care Centres.

It is difficult to compare the performance of Singapore’s health-care system with those of members of the OECD (of which it is not a member). However, an analysis of available data clearly reveals that Singapore was the lowest spender as a percentage of the economy and ranked in the middle of the pack of developed countries (10th) for health-care spending per capita in 2019, on an age-adjusted basis. Somewhat in line with this low level of spending, Singapore ranked poorly on measures of availability and utilization of medical resources. However, its performance on measures of clinical performance and quality was mixed—while worse than the average on four measures, it performed better on three. Although Singapore’s performance is often behind other developed countries, it could be said that such performance is in accordance with its relative (low) spending on a value for money basis.

Singapore did, however, rank notably well on all three indicators of health status—(4th of 29) for life expectancy; (2nd of 29) for Health Adjusted Life Expectancy; and (6th of 29) for infant mortality. However, these measures can be impacted by various factors that are outside the direct purview of the health-care system.

Although Singapore lags behind the average developed country on a number of important health-care indicators, it is worth studying its unique approach to universal health care. Its relatively low-cost mixed multi-payer system relies on government programs and compulsory national funds, partners with the private sector, remunerates hospitals based on activity, and expects patients to share in the cost of treatment—all while providing safety nets for vulnerable populations. Notably, Singapore’s relatively-unique utilization of health savings accounts as a core aspect of its system provides a new dimension for consideration as an alternative to government monopolies over the funding and delivery of services, without sacrificing universal coverage.

This essay provides an overview of the key features and relative performance of Singapore’s health-care system. In section one, we present a general overview of the organization, funding, and delivery of health care. Section two examines the core features of Singapore’s health-care system and contrasts them with those in nine high-income countries’ universal health-care systems (previously studied by Esmail and Barua, 2018). Section three is a comparison of the performance of Singapore’s health-care system with those of a larger set of 28 high-income OECD universal health-care countries that are annually evaluated on a value-for-money basis. A conclusion follows.

Organization and financing

The Singaporean health-care system represents a departure, in both philosophy and design, from those that have been implemented throughout much of the developed world during the twentieth century. In his book, *From Third World to First World: The Singapore Story 1965–2000* Lee Kuan Yew, who served as prime minister from 1959 to 1990, described health care in Singapore as an “intractable problem.” As a student in Britain in 1947, he notes his observations about the recently established National Health

Service, including the “ballooning costs” that he saw were a result of the “idealistic but impractical” sentiment that “no one should be denied the best medical services”. He decides that “We [Singaporeans] had to find our own solution.” He later notes:

The ideal of free medical services collided against the reality of human behavior, certainly in Singapore. My first lesson came from government clinics and hospitals. When doctors prescribed free antibiotics, patients took their tablets or capsules for two days, did not feel better, and threw away the balance. They then consulted private doctors, paid for their antibiotics, completed the course, and recovered. (Yew, 2000: 100)

This insight and experience emerged in the early reforms of Singapore’s health-care system after independence in 1965, and it would, eventually, end up informing the objectives of the founding documents of the country’s health-care system (see the National Health Plan 1983 and Affordable Health Care 1993). These foundational works would, in turn, ultimately shape the design and operations of Singaporean health care today.

Key health-care institutions

Singapore has achieved universal health-care coverage through a form of mixed financing, as well as the use of a multi-payer system that relies on both public and private institutions for the delivery of care (Earn, 2020). An overview of three key organizations responsible for managing the complexities of the Singaporean health-care system is outlined below.¹

The Ministry of Health (MOH) is responsible for ensuring “that good and affordable basic medical services are available to all Singaporeans,” which is achieved by “providing subsidized medical services while promoting individual responsibility for the costs of healthcare services” (Ministry of Health, 2020b). In practice, this goal requires that the MOH regulate “the public health system and the health care system overall” (Earn, 2020: 169). The MOH is also involved in the planning and long-term investing that ensures that both coverage and human health resources continue to be available.

The Ministry of Health Holding Company (MOH Holdings) is the holding company for Singapore’s public health-care entities² and other agencies. The Government of Singapore owns its public hospitals (the majority of which were corporatized³ in the 1990s) through this company (Haseltine, 2013). MOH Holdings is also responsible for medical infrastructure development, the co-ordination and recruitment of human health resources, the development of a national IT framework and, alongside the MOH, it helps administer some government schemes while evaluating applications for means-testing for government subsidies (Earn, 2020; Haseltine, 2013; MOH Holdings, n.d.-a).

The Central Provident Fund (CPF) is described as a “comprehensive social security system” that allows individuals to “set aside funds for retirement.” This fund also acts as a means of helping Singaporeans save for other important life events and expenses, including health care (Central Provident Fund Board, 2021a). The fund uses four individualized

accounts,⁴ each dedicated to a different type of expense. Among these is the MediSave Account (MA) for approved health-care expenses and approved medical insurance.

Insurance: The 3Ms of Singaporean health care

Universal health-care insurance coverage in Singapore is primarily⁵ achieved through a combination of programs collectively known as the 3Ms: i) MediShield Life; ii) MediSave; and iii) MediFund, and it is enhanced through additional private insurance plans.

MediShield Life

MediShield Life is an individual mandatory basic insurance scheme designed to provide universal coverage for all Singaporean citizens and permanent residents. Created in 2015 to replace MediShield (the government’s catastrophic-illness plan),⁶ it is intended to provide life-long protection by covering citizens against large hospital bills and costly out-patient treatments (like dialysis and chemotherapy for cancer), while being “sized for subsidized treatment in public hospitals and pegged at B2/C-type wards” (Ministry of Health, 2020c). Enrollees pay annual premiums (S\$145-S\$2055) that are subsidized (from general taxation) on the basis of age and income⁷—with higher premiums (30 percent) paid by those with serious pre-existing conditions for a 10-year period⁸ (Central Provident Fund Board and Ministry of Health, 2015; Earn, 2020; Ministry of Health, 2021e). These higher premiums are “a reflection of the higher risks they pose to the pool and to fund part of their coverage” with the government still supporting “most of the cost of extending MediShield Life coverage to all Singapore Residents” (Central Provident Fund Board, 2021b). Residents who do not pay their Medishield premiums are subject to penalties (such as an imposition of 4 percent compounding interest, penalties of up to 17 percent of outstanding premiums, and agents to recover outstanding premiums) (Central Provident Fund Board, 2022e).

MediShield Life maintains a positive (benefits covered) and negative (benefits not covered) list of services but, in general, provides partial coverage for many different inpatient expenses, ranging from ward expenses/room stays,⁹ psychiatric care, rehabilitative care, palliative care, surgical procedures, implants, radiosurgery, and bone marrow transplants. It does not generally cover “...primary care or outpatient specialist care and prescription drugs” (Earn, 2020: 169). However, some expensive outpatient treatments (such as dialysis, chemotherapy, and radiotherapy) are covered (Central Provident Fund Board and Ministry of Health, 2015). The scheme can also be used in non-subsidized wards and private hospitals; however, given that it is sized for care in subsidized wards, coverage for care in these institutions is smaller.

MediSave

MediSave, founded in 1983, is an expansion of the CPF and acts as a compulsory national “savings scheme” that requires CPF contributors “set aside part of their income to pay” for their own or a dependent’s medical expenses within established guidelines (Ministry of

Health, 2022; Haseltine, 2013). Individualized contributions placed into these accounts are made as a percentage of wages from employees and employers (8-10.5 percent), and the self-employed (4-10.5 percent), as part of their CPF deductions (Central Provident Fund Board, 2021d). The accounts are tax exempt and earn interest (4-5 percent)¹⁰ (Earn, 2020). Medical expenses, in this case, specifically refer to the expected out-of-pocket expenses that are incurred over the regular course of care or, in other words, a Singaporean’s “share of their healthcare bill” (Earn, 2020; Haseltine, 2013: 10). In the event of a contributor’s death, the remaining funds in all CPF accounts (including Medisave) are dispersed among nominated recipients (Central Provident Fund Board, 2022a).

Guidelines for the use of MediSave include what services can be paid for, who counts as a dependent, a list of approved institutions¹¹ the account can be used at, and withdrawal limits. These limits are set by the CPF board to generally cover “charges incurred at subsidised inpatient wards and outpatient treatments” (Ministry of Health, 2022).¹²

Within these guidelines, patients have a high degree of choice as to where and how they decide to spend money from their Medisave accounts. In addition to out-of-pocket expenses that are incurred over the regular course of care, these funds can be used for bills from non-subsidized wards, private hospitals, polyclinics, and day surgery and dental surgery centres. Critically, these accounts can also be used to pay for MediShield Life premiums, deductibles, co-insurance payments, and long-term care (Central Provident Fund Board & Ministry of Health, 2015; Central Provident Fund Board, 2021c; Ministry of Health, 2022).

MediFund

Founded in 1993 as an endowment, Medifund was created to act as a safety net to help poor Singaporean citizens “who cannot afford to pay for care in the most highly-subsidized wards of public hospitals” (Haseltine, 2013: 59). The program is intended for those “who face financial difficulties with their remaining bills after receiving government subsidies and drawing on other means of payment including MediShield Life, MediSave and cash” (Ministry of Health, 2021d). In addition to S\$200m initial investment by the government when it was first established, this fund is contributed to during years of budget surpluses by the government. The income generated from this principal is used to fund health-care payouts to patients (Earn, 2020; Haseltine, 2013). Patients have to meet certain criteria to qualify for payouts (see Ministry of Health, 2021d).^{13,14} MediFund assistance is only available at certain institutions, and the amount of assistance received will depend on the “...financial, health and social circumstances” of the patient and family members, in addition to “...the size of the medical bill incurred” (Ministry of Health, 2021d).

Private insurance

In addition to the 3Ms, private insurance plays a significant role in providing medical coverage to Singaporeans. Singaporeans can obtain this additional insurance to cover

different kinds of benefits—such as the additional cost of receiving care in private hospitals and non-subsidized public hospital wards (classes B1 and A) (Earn, 2020; Ministry of Health, 2021a).

There are three main categories of private insurance: i) MediShield Life Integration Plans (known as IPs); ii) IP “riders”; and iii) employer benefits and private insurance plans. Due to the number of options, there are “varying degrees of coverage duplication by MediShield Life, employer benefits, and personal health insurance” (Earn, 2020: 171).

IPs can be purchased as an additional component to one’s existing MediShield Life insurance, effectively turning one’s public coverage into one plan with “two components” (Ministry of Health, 2021a). IPs are offered by private commercial companies that act on behalf of the CPF for “premium collection and claim disbursement” (Ministry of Health, 2021a). Premiums are paid to the IP insurer who, in turn, pays the CPF Board the portion of the premiums that cover the MediShield Life component of the plan. When a claim is made, the IP insurer is the initial payer for patient care and is subsequently reimbursed by the CPF Board. Premiums for Integrated Shield Plans can be paid for out of one’s MediSave account.

Singaporeans who have an IP may also purchase what are known as “insurance riders,”¹⁵ which can provide additional complementary coverage on a first dollar basis with either “a yearly deductible or zero copayment.” Unlike IPs, the premiums for IP riders cannot be paid for with MediSave (Earn, 2020). In 2018, a 5 percent co-insurance rate was mandated for insurance rider plans to bring these plans back in line with the design principle of cost-sharing, to encourage “prudence” in the use of health-care resources, while keeping “healthcare cost, and health insurance premiums, affordable and sustainable in the long term” (Ministry of Health, 2021c). Unlike the premium, the co-insurance under an insurance rider is payable through a patient’s MediSave account. Finally, there are also private insurance products that are “not integrated” into MediShield Life and whose premiums cannot be paid for with MediSave (Earn, 2020: 171).

Cost-sharing

Cost-sharing is a core feature of the Singaporean health-care system. This occurs in three main ways: i) deductibles; ii) co-insurance; and iii) co-payments and user charges.

As part of the MediShield Life plan, patients are expected to pay a yearly deductible (ranging from S\$1,500 to S\$3,000) before coverage for insured care begins. Deductibles vary according to i) ward classes (Class C and Class B2 and above); ii) age (80 and below vs. 81 and above); iii) and if the patient is only going in for a day surgery. No deductible is required for outpatient treatments covered by MediShield Life (Central Provident Fund and Ministry of Health, 2015).

Co-insurance is also a major part of MediShield Life coverage. The amount of co-insurance applies at different percentage rates that decrease as the total cost of care increases. For the first S\$5,000 of inpatient care a 10 percent co-insurance rate applies. This decreases

to 5 percent being applied to the next S\$5,000, with 3 percent applying to all charges thereafter. This amount accumulates over the policy year. A flat 10 percent co-insurance rate is applied for outpatient care (Central Provident Fund and Ministry of Health, 2015; Earn, 2020). The co-insurance that a patient is responsible for applies to the bill amount post-deductible.¹⁶

Finally, co-payments are also a long-standing part of Singaporean health care, particularly in primary care. These fees are generally expected from patients when accessing primary care, specialist consultations, and when filling a prescription. A primary care visit, for example, will cost S\$13.20 for adults, and S\$6.90 for children and the elderly. For specialists working in the public sector, subsidized patients are expected to pay a fee of S\$39, whereas “private” patients may spend anywhere between S\$79.20 and S\$146.60.¹⁷ Patients could potentially receive direct subsidies for outpatient specialist care that covers up to 75% of their costs. Qualifying for these subsidies depends on income and residency status. Beyond subsidies for specialist appointments, there are no explicit safety nets, such as annual caps, for fixed co-payments (Earn, 2020).

Medications are subsidized based on whether they are categorized into Standard Drug List 1, which are “essential first line drugs,” or Standard Drug List 2, which are “more expensive essential drugs.” Patients receiving medications placed on List 1 are only expected to pay S\$1.40 per item per week, whereas those placed on List 2 are expected to share in 50 percent of the drug cost (Earn, 2020; Ho, 2010).

Comparison of Singaporean health-care system features

In this section, we use the framework originally laid out by Esmail and Barua (2018) to compare core features of universal health-care systems, including the nature of a country’s primary insurance scheme, the coverage offered by their private insurance, the mixture of hospital ownership and financing, the presence of patient cost-sharing, and the nature of physician employment and payment. Esmail and Barua’s (2018) report documents and contrasts these features in eight high-income, high-performing universal health-care systems (Australia, France, Germany, the Netherlands, New Zealand, Sweden, Switzerland, and the United Kingdom) with those in Canada. This section uses Esmail and Barua’s findings for all nine countries¹⁸ and compares them with the Singaporean health-care system. Where possible, additional data from the Fraser Institute’s series *Understanding Universal Health Care Reform Options (2020-2022)*¹⁹ is used to update the report’s findings.

Universal insurance coverage of core medical services

The health-care systems in Esmail and Barua (2018) fit into two general categories i) those in which government is the primary insurer with benefits under a universal scheme that are financed through the use of a tax-funded health-care system (Australia, Canada, France, New Zealand, Sweden, and the United Kingdom) and ii) those that rely on multiple funds/insurers competing with one another within a regulated environment—sometimes called

Table 3.1: Overview of public and private insurance systems and benefits in Singapore and comparator countries

Country	Primary Insurance	Primary Private Insurance	Secondary Private Insurance				
			Can cover core-services	Expanded coverage (non-medical)	Expanded choice of provider	Quicker access	Choice of doctor
Singapore ^a	Multipayer, mixed insurance system	No	Yes	Yes	Yes	Yes	Yes
Australia	Tax-Funded National Health System	No	Yes ^b	Yes	Yes	Yes	Yes
Canada	National Tax-Funded	No	No	-	-	-	-
France	Tax-Funded National Health System	No	Yes	Yes	No	No	Yes
Germany	Multiple insurers, with choice of insurer	Yes	-	Yes	Yes	Yes	Yes
Netherlands	Multiple insurers, with choice of insurer	Yes	-	-	-	-	-
New Zealand	Tax-Funded National Health System	No	Yes	Yes	Yes	Yes	Yes
Sweden	Tax-Funded National Health System	No	Yes	-	Yes	Yes	-
Switzerland	Multiple insurers, with choice of insurer	Yes	-	Yes	Yes	Yes	Yes
United Kingdom	Tax-Funded National Health System	No	Yes	Yes	-	Yes	-
Source:	OECD, 2016a, Q2; Q2, Subitem1	Barua and Esmail, 2015	Q23Item3b	Q23Item1	Q23Item2	Q23Item3	Q23Item4

Note: ^aData for Singapore are based on Earn (2020) and (AIA 2021). ^bAustralians are able to purchase private insurance for different types of core services (such as hospital care and general treatment) as per Glover (2020).

“social health insurance [SHI] schemes.” This group includes Germany, the Netherlands, and Switzerland (Table 3.1).

Singapore does not fit neatly into either category and could be best described as a “multipayer, mixed insurance system” (Earn, 2020).

There are clear similarities between Singapore’s and other tax-funded health systems, such as those in Australia, Canada, France, New Zealand, Sweden, and the United Kingdom. The most obvious is the use of a public (or government) entity for the primary provision of universal coverage.^{20,21} As mentioned previously, Singaporeans are automatically enrolled into the universal basic insurance scheme (MediShield Life)—a single primary insurance fund that relies heavily on general tax revenue.

Although government provides subsidies for this program and other forms of direct care, Singaporeans are required to pay individual contributions in the form of MediShield Life

premiums.²² The collection of premiums, often paid directly to an independent insurer, is traditionally a feature in systems that have adopted an SHI model, such as those in the Netherlands, Switzerland, and Germany. These systems primarily rely on insurance premiums (supplemented by earmarked payroll taxes, or income-dependent contributions) paid to one of several competing sickness-funds or non-profit insurance companies of the individual's choosing.²³ Although Medishield Life is a mandatory government plan, the optional purchase of MediShield Life Integration Plans (IPs) (discussed below) from a private commercial company of one's choice turns Singaporeans public coverage (from a single entity) into one plan with "two components" (from multiple entities), with the private company of one's choice²⁴ serving as the primary point of contact for the co-ordination of both elements of the plan.

However, the primary distinguishing feature of Singapore's health-care system that causes it to depart significantly from both groups is MediSave. While medical savings accounts have been established in China, South Africa and the United States, the authors are unaware of a similar national program in any of the nine high-income universal health-care systems discussed here²⁵ (Wouters et al., 2016).

Finally, although most of the countries employ a variety of safety nets, Singapore's MediFund scheme²⁶ is somewhat notable in that it is a state-run endowment fund financed through the income generated from the principal endowment (which is topped up in years of budget surpluses).

Secondary private insurance coverage and benefits

Excluding Canada, the set of high-income universal health-care countries examined by Esmail and Barua (2018: 7) allow private insurers to cover health-care goods and services included in the basic benefit package, either as the primary source of coverage (the Netherlands, Switzerland and Germany) or as a secondary source (Australia, France, New Zealand, Sweden, and the United Kingdom).

Singapore's private insurance market offers citizens considerable choice regarding coverage. As documented earlier, there are three main categories of private insurance products. Some of the benefits for Integrated Shield Plans are enhanced financial protection, offered by MediShield Life, increased coverage for non-subsidized wards and private hospitals, out-of-pocket expense caps, access to primary care tele-health, networks of specialists with guaranteed appointment times, alternative medicine, personal case managers, pre- and post-hospitalization benefits, psychiatric care benefits, and extended coverage (such as in private hospitals and higher class wards in public hospitals) for expensive outpatient procedures. These Integrated Shield Plans also come with various forms of riders, which can waive deductibles and lower the amount of co-insurance one is responsible for down to 5 percent (see AIA, 2021, for one example of some of these benefits).

Among the countries in our cohort where universal coverage is not primarily offered through private insurers, Singapore stands out as having one of the most liberal secondary

private insurance markets on offer (Table 1). Like several national tax-funded systems (Australia, France, New Zealand, Sweden, and the United Kingdom) in our cohort, Singapore allows private insurers to also cover core services. Private plans in Singapore also offer more choice of providers and physicians, as well as a guarantee of when the consultation will occur (for example, the company AIA offers a guaranteed specialist consultation within three days) (AIA, 2021). As a result, Singapore stands in stark contrast to Canada (the most restrictive in our cohort), where none of these options are on offer in the private insurance market.

We also observe similarities between Singapore and selected SHI countries in our cohort. For example, Germany and Switzerland allow private insurance to offer an array of expanded choice and faster access to services—with private or independent coverage of core services being an inherent feature of the SHI model. In Australia, in addition to being covered by the government’s universal scheme, patients can purchase private insurance for quicker access or more comfortable accommodation. More generally, a detailed examination of 17 OECD countries by Gliberman (2020) found that “...in 13 countries, private insurance markets exist for either primary or secondary coverage,” (p. 12) with all but three offering private insurance for cost-sharing. This puts Singapore’s approach to private insurance in line with the vast majority of universal health-care systems.

There is, however, a key design difference in its private insurance market that distinguishes Singapore from the rest of the countries in (at least) the cohort studied in this paper. Specifically, Integrated Plans, as the name implies, are fully integrated with public MediShield Life coverage. This is most evident in that fact that i) benefit design for IPs is done in a way in which coverage is, in many cases, a simple extension of the public benefits offered under MediShield Life, and ii) once the IP is purchased, the company that offers it becomes the single point of contact for all insurance claims in place of MediShield Life. Thus, the design and, in particular, the integration of private insurance plans with public MediShield Life coverage, distinguishes the approach taken by Singapore from other countries included in our comparison.

Hospital ownership

Another key feature that differentiates the health-care systems of the countries is their mixtures of hospital ownership. Throughout the developed world’s universal access health-care systems, core medical services might be delivered in public, private not-for-profit, or private for-profit hospitals.²⁷

As can be seen in Table 3.2, private hospitals are found in several countries with universal health care (and even in Canada,²⁸ albeit to a very limited extent). While private for-profit hospitals only constitute 4 percent of all hospitals in Sweden, they represent 43 percent of hospitals in Germany (Table 3.2).^{29,30}

Acute-care hospital ownership in Singapore is basically split between public ownership and private for-profit ownership, with one psychiatric hospital falling under public ownership (Ministry of Health, 2020a). Almost 39 percent of acute care hospitals in

Table 3.2: Hospitals by ownership category in Singapore and comparator countries

(F2) Hospitals (by ownership)	Total	Public	Private not-for-profit	Private for-profit
Singapore (Acute, 2020)	18	10	1	7
Singapore (Psychiatric, 2020)	1	1	0	0
Singapore (Community, 2020)	8	4	4	0
Australia (2014)	1,322	698	107	517
Canada (2015)	719	712	0	7
France (2015)	3,089	1,389	691	1,009
Germany (2015)	3,108	806	979	1,323
Netherlands (2014)	505	0	181	324
New Zealand (2015)	165	85	28	52
Sweden	83	77	3	3
Switzerland (2013)	293	61	82	150
United Kingdom	-	-	-	-

Source: Esmail and Barua 2018; Ministry of Health (2020a).

Singapore are categorized as for-profit institutions. As mentioned earlier, public hospitals in Singapore are “corporatized” units—i.e., a “legally autonomous entity registered as a private firm” that is owned by the government. Although “they enjoy operational autonomy in all areas, including recruitment, remuneration, purchase, and pricing of services,” which is reinforced by revenues from non-subsidized wards, the government can intervene and shape hospitals’ behaviour to control, for example, “...user charges, physicians’ remunerations, and the number of hospital beds in different ward classes” (Ramesh and Bali, 2017: 3–4).³¹ This has, according to Earn (2020), “enabled the Ministry of Health to reorganize the public health-care system to ensure better-coordinated and seamless care (by, for example, creating integrated clusters of public hospitals and polyclinics)” (174).

Community hospitals, in contrast, were introduced by the government to provide rehabilitative, subacute, and outpatient care (e.g., day rehabilitation). These hospitals also provide services for “patients who have dementia or need palliative care” (Earn, 2020: 174). There is an even split in ownership of community hospitals between public (4) and private not-for-profit hospitals (4).

It should be noted that MediShield Life can be used by patients to cover care in non-subsidized wards and private hospitals. However, because bills for medical care at non-subsidized wards and private hospitals tend to be larger than in subsidized wards at public hospitals, MediShield Life is usually only able to cover a smaller portion of the bill (Central Provident Fund and Ministry of Health, 2015).³² This suggests that a different

dynamic is at play among private hospitals, the government, and insured individuals in Singapore—one in which amenities, increased privacy, and care from a private hospital are viewed as outside (or at least to a lesser extent of) what should be reasonably provided by public insurance.

Hospital funding

There are two main categories of hospital remuneration, those based on prospective global budgets for hospitals, and those based on remunerating hospitals based on their activity.

The use of global budgeting involves the setting of prospective budgets where the “system funding total and its allocation across hospitals is set at the beginning of the fiscal year. The funding levels and allocations may be adjusted over time—using socio-demographic, political and economic factors to determine future payments—but mainly follow historic patterns” (Canadian Institute for Health Information, 2010: 3).

Another way is to remunerate hospitals on the basis of their activity. Activity-based-funding (ABF), according to the Canadian Institute for Health Information (CIHI, 2010):

can be defined by two features: first, a case mix system is used to describe hospital activity and to define its products or outputs; second, a payment price is set for each case mix group in advance of the funding period and payments to the hospital are made on a per case basis... Other funding models that share principles of activity-based funding include case mix funding, diagnosis-related group (DRG)-based funding, patient-focused funding, pay for performance (P4P), payment by results (PbR), prospective payment system (PPS) and service-based funding. (3)

The OECD Health Systems Characteristics (2016a) survey classifies these payments as “DRG-like.” This classification “refers to a payment linked to the type and severity of hospital cases. Each patient is classified in a specific ‘diagnostic’ group according to his/her principal diagnosis and a fixed reimbursement is given to the hospital for treating the patient” (Organization for Economic Cooperation and Development, 2016b: 3).

As can be seen in Table 3.3, DRG-like (or per procedure/service) payments are the predominant method used to remunerate hospitals in most of the countries examined by Esmail and Barua. An expanded analysis by Nadeem Esmail (2021) found that 23 countries (of the 28 they examined) with universal health care have adopted activity-based funding—Canada is among the minority that almost exclusively rely on prospective global budgets.³³

Australia, France, the Netherlands, and the United Kingdom also use DRG-like payments for public hospitals while “locat[ing] this within an overall global budget.” This kind of hospital-level budgeting method is most pronounced in Australia and the United Kingdom. Esmail and Barua (2018) note, quoting from Kumar and Schoenstein (2013: 19), that this “could be argued to have DRG based budgeting rather than DRG based reimbursement.”³⁴

Table 3.3: Method of hospital funding in Singapore and comparator countries

Country	Public hospitals	Private not-for-profit	Private for-profit
Singapore	Case-based payments (DRGs) within global budget.*	-	-
Australia	Per case, DRG-like	By procedure, service	By procedure, service
Canada	Prospective global budget	Prospective global budget	Prospective global budget
France	Per case, DRG-like	Per case, DRG-like	Per case, DRG-like
Germany	Per case, DRG-like	Per case, DRG-like	Per case, DRG-like
Netherlands	Per case, DRG-like	Per case, DRG-like	-
New Zealand	Prospective global budget	-	-
Sweden	Prospective global budget, per case, DRG-like**	Prospective global budget, per case, DRG-like**	Per case, DRG-like
Switzerland	Per case, DRG-like	Per case, DRG-like	Per case, DRG-like
United Kingdom	Per case, DRG-like	By procedure, service	Retrospective

Sources: OECD, 2016a; *Earn, 2020; **Anell, Glenngård, and Merkur, 2012; OECD, 2016a, Q28b, Item 1.

Note: *Data is based on the OECD 2012 health system characteristics survey; Data for Singapore are based on Earn (2020).

Singapore follows a similar approach to funding its public hospitals as those countries mentioned above. In this project, first piloted in 1998, Singapore adopted Australia’s AR-DRG payments system in 1999 (Duckett, 2015). Public hospitals are now reimbursed on the “basis of diagnosis-related groups (DRGs) for inpatient and day surgery services and per piece rates for outpatient visits subject to an overall block.”³⁵ Hospitals are remunerated for providing care via a mix of MediShield Life, MediSave, and MediFund. Public hospitals are required to meet their “expenses from government payments and patient fees.” These hospitals are, however, allowed to keep surpluses while also being responsible for meeting “shortfalls from their reserves” (Earn, 2020: 174).

Physicians’ employment, remuneration, and dual practice

Generally speaking, there are three methods by which physicians are remunerated: salary, capitation payments, and fee-for-service. Some countries have employed a mixed methods approach to mitigate the negative effects of some while preserving the positive effects of others. Table 3.4 presents the most common types of physician employment and forms of remuneration.

As can be seen in Table 3.4, the predominant model of employment for primary care physicians in the group of countries examined by Esmail and Barua (2018) is self-employed practice with a mixed form of remuneration. There are some notable exceptions—in Australia, Germany and Switzerland the predominant form of remuneration is fee-for-service. Primary care physicians in Sweden, on the other hand, are predominantly

Table 3.4: Physician remuneration in Singapore and comparator countries

Country	Ownership and payment			Dual practice	
	Primary	Outpatient	Inpatient	Outpatient	Inpatient
Singapore	Mostly Private/ FFS	Mixed/FFS and Salary	Public sector, salary ^a	Yes	-
Australia	Privately employed, fee for service	-	Self-employed, mixed	Yes (always)	Yes (always)
Canada	Self-employed/Mixed	Self-employed/FFS	Self-employed/FFS	No	No
France	Self-employed, mixed	Self-employed, fee for service	Publicly employed, salary	Yes (always)	Yes (sometimes)
Germany	Self-employed, fee for service	Self-employed, fee for service	-	Yes (always)	-
Netherlands	Self-employed, mixed	Self-employed, fee for service	Self-employed, mixed	Yes (always)	Yes (always)
New Zealand	Self-employed, mixed	-	-	Yes	Yes
Sweden	Publicly employed, salary	Publicly employed, salary	Publicly employed, salary	Yes (sometimes)	Yes (sometimes)
Switzerland	Self-employed, fee for service	Self-employed, fee for service	Private, mixed	Yes (always)	Yes (always)
United Kingdom	Self-employed, mixed	Publicly employed, salary	Publicly employed, salary	Yes (always)	Yes (always)
Sources:	OECD, 2016a, Q29a and Q29b	OECD, 2016a, Q30a and Q30c	OECD, 2016a, Q31a and Q31c	OECD, 2016a, Q31d	OECD, 2016a, Q30d

Note: FFS = Fee-for-service. Mix implies a mixture of fee-for-service, salary, and capitation for primary physicians, but only fee-for-service and salary for in-patient physicians. Data for New Zealand is from an OECD survey in 2012. Data for Singapore are based on Earn (2020); ^aMinistry of Health. (n.d.-b).

publicly employed and paid. As can be seen in Table 3.4 most outpatient specialists operate as self-employed practitioners and are remunerated through fee-for-service. For inpatient specialists we see a greater mix of predominant employment and remuneration among countries.

In Singapore, general practitioner clinics tend to operate as private self-employed practices that are paid on a fee-for-service model and retain the ability to set their own fees (Earn, 2020). In 2019, primary care in Singapore was primarily delivered either through its 20 public polyclinics or its 2,300+ private GP practices (Ministry of Health, 2020a). Specialist outpatient services “are provided by both the public and the private sector on a fee-for-service basis,” with public-sector specialists being salaried (Earn, 2020: 174). These publicly employed specialists see patients in the outpatient clinics of public hospitals, or through the six national specialty centres, which “serve as national tertiary centers for cancer, dental, eye, heart, neurosciences, and skin” (Earn, 2020: 178). Public-sector doctors providing inpatient services are salaried (Ministry of Health, n.d.-b).

Most high-income universal health-care countries examined allow for some form of dual practice—i.e., physicians are generally allowed to practise in both publicly funded, universal settings and in private settings (Canada is a notable exception in restricting physicians’ activities to one setting only). Like most of the countries examined (and unlike Canada), Singapore allows specialists working in the public sector to see both private and public (subsidized) outpatients while working in hospital clinics and National Care Centres (Earn, 2020).³⁶

Cost-sharing

Nearly every country in our cohort requires citizens to pay either a deductible (the Netherlands and, to a lesser extent, Sweden), co-insurance (France), co-payments (France, Germany, New Zealand, and Sweden) or, as is the case in Switzerland and Singapore, all three (Table 3.5).³⁷ Cost-sharing is a key component of Singapore’s health-care system. Patients are expected to pay a deductible before their MediShield Life insurance begins covering the cost of care, co-insurance rates are applied to the cost of care post deductible, and co-payments are routinely required for different forms of outpatient care (Central Provident Fund and Ministry of Health, 2015; Earn, 2020). This approach aligns with the vast majority of universal health-care systems around the world (22 of 28) that expect patients to share in the cost of outpatient primary care, outpatient specialist care, or acute inpatient care (although the last is relatively less common) via deductibles (rarely), co-insurance charges, and copays (Barua and Moir, 2022).

Table 3.5: Methods of cost sharing used in Singapore and comparator countries

Country	Deductible	Primary	Specialist	Inpatient
Singapore	Yes	Yes	Yes	Yes
Australia	No	Sometimes	Sometimes	Sometimes
Canada	No	No	No	No
France	No	Yes	Yes	Yes
Germany	No	No	No	Yes
Netherlands	Yes	No	No	No
New Zealand*	No	Yes	No	No
Sweden	Yes	Yes*	Yes*	Yes*
Switzerland	Yes	Yes	Yes	Yes
United Kingdom	No	No	No	No
Sources:	OECD, 2016a, Q11	OECD, 2016a, Q12, Item 2	OECD, 2016a, Q12, Item 3	OECD, 2016a, Q12, Item 1

Note: *Data is based on the OECD 2012 health system characteristics survey; Data for Singapore are based on Earn (2020).

Summary

Key features that define Singapore’s health-care system include: i) the financing of Singapore’s health-care systems through the use of a *combination* of general taxation alongside individual insurance premiums; ii) the unique approach of Singapore’s utilization of three purpose specific funds, including the important role of health savings accounts, to finance health care; iii) the scope of benefits provided by private insurance, alongside the level of its integration with the public scheme; and iv) apart from Switzerland, Singapore is the only country in our cohort to use all three principal cost-sharing instruments (deductibles, co-insurance, and co-payments) in the provision of public insurance coverage and benefit payouts.³⁸

Although Singapore shares a number of features with the nine high-income universal health-care countries studied in this section, when considered in combination, these features distinguish Singaporean health care from the approaches taken by its peers. In the following section, we will examine how the Singaporean health-care system performs in comparison with an expanded cohort of international peers with universal coverage.

Performance comparison of the Singaporean health care system with those of OECD countries with universal healthcare coverage

This section compares the performance of the Singaporean health-care system with the performance of 28 high-income OECD countries that have universal health-care coverage. We use a “value for money” approach to compare cost and performance, based on the methodology described in Moir and Barua (2021).³⁹ The countries compared by Moir and Barua (2021) meet the following criteria: i) they must be a member of the OECD; ii) they must have universal (or near-universal) coverage for core-medical services; and iii) they must be classified as a “high-income” country by the World Bank. In this section, Singapore’s cost and performance is compared with the average for this group of countries.

The level and type of health-care spending is measured by four indicators. Like Moir and Barua (2021), we include indicators measuring health-care spending as a percentage of GDP and spending per capita to compare costs. However, to provide additional background information on the nature of spending, we also include indicators measuring domestic private health expenditure (including private insurance and out-of-pocket payments) as a percentage of current expenditure on health, as well as out-of-pocket health expenditures as a percentage of household consumption. A rank of one indicates a larger level (or proportion) of spending on indicators of cost – however, this analysis makes no assertions about the optimal level of spending (which is assessed relative to performance in a value-for-money framework).

The performance of each of these countries is measured with 20 indicators representing four categories:⁴⁰

1. availability of resources (five indicators)
2. use of resources (two indicators)

3. quality and clinical performance (10 indicators)
4. and health status (three indicators)⁴¹

It should be noted that while lower rates are preferable for certain indicators of quality and clinical performance and health status, and higher rates are preferable for others. The performances of countries on each indicator are ordered such that a rank of one indicates superior performance on all performance indicators.

The most recent year for which data is reported by Singapore is used to calibrate international comparisons for each indicator. Data for Singapore for some indicators were not available from the OECD health statistics database but were available from the WHO Global Health Observatory or the World Bank. In these instances, the data were combined so that a comparison could be made. This combination of OECD and WHO data is similar to recent reports that have included Singapore alongside others from the Asia Pacific region (OECD and WHO, 2020).

Because age profiles may have implications regarding the international comparison of spending and health-care system performance,⁴² several indicators are adjusted for age (non-adjusted values are presented for completeness).⁴³ The age-adjustment model used in this section is the same as that described in Moir and Barua (2021). However, indicators with a base year that was earlier than 2019 were adjusted using this model but based on the population age structure for that year.

We advise the reader to exercise caution when drawing conclusions from the comparison of performance presented below. The set of 28 high-income countries identified by Moir and Barua are of primary interest to Canadians interested in comparative performance and reform options. However, Singapore is not a member of the OECD, therefore the following comparisons may not be appropriate due to differences in data-sourcing, operational definitions of some measures, and differences in economic and health development more generally. To our knowledge, there has been no other recent work that compares the performance of the Singaporean health-care system with those of other high-income countries that are members of the OECD.⁴⁴ Notably, the Organization for Economic Co-Operation and Development and the World Health Organization limit their comparisons in their performance of Singapore's health-care system to within the context of other nations within the Asia Pacific (OECD and WHO, 2020).

That being said, Singapore actually reports a higher GDP per capita than every country (except Luxembourg) included for comparison (World Bank, 2022a).

Spending

Out of the 29 countries included in this analysis, Singapore ranked as the lowest spender on health-care (29th) as a percentage of GDP (at 4.4 percent), while ranking 18th out of 29 for health-care spending per capita. After adjusting for age, Singapore continued to rank 29th out of 29 for health spending as a percentage of GDP but ranked 10th out of 29 for spending per capita (Table 3.6).⁴⁵

Table 3.6: Spending on health care, age-adjusted [AA] and non age-adjusted, 2019

Country	Spending (% of GDP)	AA Spending (% of GDP)	Spending (per capita, US\$ PPP)	AA Spending (per capita, US\$ PPP)	Out-of-pocket expenditure % of household consumption	Domestic private health expenditure as percentage of current health expenditure (%)
Australia	9.4	10.2	4,919.2	5,331.0	2.9	28.3
Austria	10.4	10.3	5,705.1	5,659.0	3.6	27.0
Belgium	10.7	10.6	5,458.4	5,414.3	3.8	23.2
Canada	10.8	11.2	5,370.4	5,542.6	2.8	29.8
Czech Republic	7.8	7.6	3,417.5	3,308.1	2.4	18.5
Denmark	10.0	9.7	5,477.6	5,318.5	3.1	16.7
Finland	9.2	8.3	4,561.5	4,128.8	3.0	19.8
France	11.1	10.6	5,274.3	5,043.6	1.9	24.7
Germany	11.7	10.7	6,518.0	5,954.1	2.8	22.3
Greece	7.8	7.1	2,319.0	2,086.3	4.0	51.7
Iceland	8.6	9.8	4,540.8	5,198.6	2.7	17.1
Ireland	6.7	7.7	5,083.2	5,837.5	2.7	25.4
Israel	7.5	9.1	2,903.4	3,554.9	2.9	33.1
Italy	8.7	7.6	3,653.4	3,197.7	3.4	26.1
Japan	11.0	8.2	4,691.5	3,471.9	2.5	16.1
Korea	8.2	9.1	3,406.3	3,805.7	5.1	40.5
Latvia	6.7	6.3	2,074.0	1,965.2	4.0	39.2
Lithuania	7.0	6.7	2,727.2	2,623.9	3.7	34.6
Luxembourg	5.4	6.1	5,414.5	6,180.1	1.6	12.8
Netherlands	10.2	10.0	5,739.2	5,641.0	2.5	34.1
New Zealand	9.1	10.0	4,211.9	4,648.7	2.0	24.4
Norway	10.5	11.0	6,744.6	7,024.9	3.3	14.2
Portugal	9.5	8.6	3,347.4	3,029.9	4.5	39.0
Singapore	4.4	5.3	4,450.6	5,367.8	3.5	48.3
Slovenia	8.5	8.2	3,303.5	3,178.3	1.9	27.6
Spain	9.1	8.9	3,600.3	3,517.1	3.5	29.4
Sweden	10.9	10.5	5,551.9	5,341.6	3.4	15.1
Switzerland	11.3	11.3	7,138.1	7,167.4	5.5	67.9
United Kingdom	10.2	10.2	4,500.1	4,504.8	2.5	20.5
OECD +1 Average	9.0	9.0	4,555.3	4,587.7	3.1	28.5
Singapore Rank	29	29	18	10	9	3
No. of Countries	29	29	29	29	29	29

Sources: OECD, 2021a; WHO 2020a.

Note: PPP = Purchasing Power Parity

Singapore is notable for spending a smaller amount on health care as a percentage of GDP than all the countries examined. However, Singapore is basically an average spender on a per capita basis (and above average on an age-adjusted per capita basis).

For additional context, we also examine two indicators of the nature of health-care spending. Domestic private spending accounted for 48 percent of current health expenditure—ranking Singapore 3rd highest out of 29 countries. Further, when examining out-of-pocket health expenditures as a percentage of household consumption, Singapore reported a rate of 3.5 percent—ranking 9th highest out of 29.

These indicators clearly suggest that private spending makes up a larger portion of overall spending in Singapore compared with most OECD countries with universal health-care systems. In addition, its domestic private health expenditure represents a larger portion of current health expenditure than do those of almost every comparator country (except Greece and Switzerland).

Availability of resources

Out of 29 countries, Singapore ranked nearly last at 28th for physician availability (in 2016, the latest data available), 24th out of 29 for nursing availability (in 2017, the latest year available),⁴⁶ and 28th out of 29 for total hospital beds (in 2017, the latest data available). After we adjust for age, Singapore ranked 25th out of 29 for physician availability, 20th out of 29 for nursing availability, and 20th out of 29 for total hospital beds.

As can be seen from these rankings and Table 3.7, Singapore clearly has fewer human and capital medical resources than the majority of OECD countries.

We see similar results for the availability of health technology resources. In 2013 (the latest year for which data was available) Singapore ranked 23rd out of 26 countries for magnetic resonance imaging (MRI) availability (per one million population) and 27th out of 27 for computed tomography scanner (CT) availability. After adjusting for age, Singapore ranked 19th out of 26 for MRIs and 25th out of 27 for CT scanners.

Overall, we can see that Singapore is a low performer when it comes to the availability of medical technology, when compared with other OECD countries.

Use of resources

To get a better understanding of the general utilization of health-care services, we examined two indicators i) physician consultations per capita; and ii) the number of total hospital discharges per 100,000 population.⁴⁷ It should be noted that they are examined in this publication simply as indicators of the provision of health-care services in the context of health-care spending.⁴⁸

For physician consultations per capita in 2013 (the latest year for which data were available), Singapore ranked 28th out of 28 countries. We see a similar case for hospital discharges per 100,000 population, with Singapore ranking 27th out of 29 (in 2018, the

Table 3.7: Availability of human and capital resources per thousand population, age-adjusted [AA] and non age-adjusted, 2016 and 2017

Country	Physicians (2016)	AA physicians (2016)	Nurses (2017)	AA nurses (2017)	Total hospital beds (2017)	AA total hospital beds (2017)
Australia	3.6	3.9	11.7	12.6	3.8	4.2
Austria	5.1	5.0	6.9	6.7	7.4	7.3
Belgium	3.1	3.0	11.2	11.1	5.7	5.6
Canada	2.6	2.7	10.0	10.4	2.5	2.6
Czech Republic	3.7	3.6	8.5	8.3	6.6	6.5
Denmark	4.0	3.9	10.0	9.7	2.6	2.5
Finland	3.2	2.9	14.3	13.0	3.3	3.0
France	3.1	3.0	10.5	10.1	6.0	5.7
Germany	4.2	3.8	13.1	11.9	8.0	7.2
Greece	6.1	5.5	3.3	3.0	4.2	3.8
Iceland	3.9	4.4	14.5	16.5	3.1	3.5
Ireland	3.2	3.7	12.2	14.0	3.0	3.4
Israel	3.1	3.8	5.1	6.2	3.0	3.7
Italy	4.0	3.5	5.8	5.1	3.2	2.8
Japan	2.4	1.8	11.3	8.4	13.1	9.7
Korea	2.3	2.6	7.0	7.9	12.3	14.0
Latvia	3.2	3.0	4.6	4.3	5.6	5.2
Lithuania	4.5	4.3	7.7	7.4	6.6	6.3
Luxembourg	2.9	3.2	11.7	13.2	4.7	5.2
Netherlands	3.5	3.5	10.9	10.8	3.3	3.2
New Zealand	3.1	3.4	10.1	11.2	2.7	3.0
Norway	4.6	4.8	17.7	18.4	3.6	3.8
Portugal	4.8	4.4	6.7	6.1	3.4	3.1
Singapore	2.3	2.9	6.2	7.8	2.5	3.1
Slovenia	3.0	2.9	9.9	9.6	4.5	4.4
Spain	3.8	3.7	5.7	5.6	3.0	2.9
Sweden	4.2	4.0	10.9	10.3	2.2	2.1
Switzerland	4.3	4.2	17.2	17.2	4.7	4.6
United Kingdom	2.8	2.8	7.8	7.8	2.5	2.5
OECD +1 Average	3.6	3.6	9.7	9.8	4.7	4.6
Singapore Rank	28	25	24	20	28	20
No. of Countries	29	29	29	29	29	29

Sources: OECD, 2021a, and 2022. Data for Total Beds for OECD countries comes from OECD, 2022. Physician and Nursing data for Singapore is from the World Bank, 2022c. Hospital bed data is from the WHO, 2020b. Calculations for Singapore hospital bed data completed by authors.

Table 3.8: Diagnostic technology availability per million, age-adjusted [AA] and non age-adjusted, 2013

Country	Magnetic resonance imaging units (2013)	AA magnetic resonance imaging units (2013)	Computed tomography scanners (2013)	AA computed tomography scanners (2013)
Australia	13.9	15.0	53.7	58.0
Austria	19.2	18.9	29.6	29.1
Belgium	10.8	10.7	22.9	22.6
Canada	8.9	9.2	14.8	15.3
Czech Republic	7.4	7.2	15.0	14.7
Denmark	15.4	14.9	37.8	36.6
Finland	22.1	20.2	21.7	19.8
France	9.4	9.0	14.5	13.9
Germany	28.9	26.2	33.7	30.6
Greece	22.1	19.8	33.7	30.1
Iceland	21.6	24.6	40.2	45.6
Ireland	13.2	15.2	17.7	20.4
Israel	3.5	4.2	8.9	10.9
Italy	25.2	22.1	33.1	29.0
Japan	46.9	34.8	101.3	75.2
Korea	24.4	27.7	37.5	42.6
Latvia	10.4	9.8	34.8	32.7
Lithuania	10.5	10.0	23.7	22.6
Luxembourg	12.9	14.5	22.1	24.8
Netherlands	11.5	11.3	11.5	11.4
New Zealand	11.3	12.4	16.7	18.4
Norway	-	-	-	-
Portugal	9.3	8.4	27.6	25.1
Singapore	7.8	9.7	8.9	11.1
Slovenia	9.2	9.0	12.1	11.8
Spain	15.3	14.9	17.6	17.1
Sweden	-	-	-	-
Switzerland	-	-	36.6	36.6
United Kingdom	7.2	7.2	9.3	9.2
OECD +1 Average	15.3	14.9	27.3	26.5
Singapore Rank	23	19	27	25
No. of Countries	26	26	27	27

Sources: OECD, 2021a. Data for Singapore is from WHO, 2020b.

Table 3.9: General Utilization per capita, per hundred thousand, age-adjusted [AA] and non age-adjusted, 2013 and 2018

Country	Doctor consultations, per capita (2013)	AA doctor consultations, per capita (2013)	Inpatient care discharges, per 100,000 population (2018)	AA Inpatient curative care discharges, per 100,000 population (2018)
Australia	6.5	7.0	18,410.2	19,902.3
Austria	6.8	6.7	24,701.8	24,442.3
Belgium	6.7	6.6	16,554.5	16,380.6
Canada	6.9	7.2	8,330.1	8,628.6
Czech Republic	7.4	7.2	19,589.8	19,032.4
Denmark	4.7	4.6	14,733.3	14,270.4
Finland	4.2	3.8	16,162.1	14,682.7
France	6.4	6.1	18,638.3	17,888.3
Germany	9.9	9.0	25,246.4	22,935.5
Greece	-	-	13,718.7	12,311.8
Iceland	6.0	6.8	11,038.8	12,607.2
Ireland	3.8	4.4	13,625.0	15,656.1
Israel	6.2	7.6	15,234.3	18,606.9
Italy	6.8	6.0	11,414.6	9,996.9
Japan	12.8	9.5	12,954.9	9,593.0
Korea	14.6	16.6	17,172.8	19,374.8
Latvia	6.2	5.8	18,648.1	17,573.0
Lithuania	8.1	7.7	22,235.7	21,275.9
Luxembourg	5.9	6.6	14,288.7	16,170.2
Netherlands	6.2	6.1	9,278.4	9,125.1
New Zealand	3.7	4.1	13,736.3	15,170.2
Norway	4.2	4.4	15,941.6	16,614.0
Portugal	4.1	3.7	10,970.4	9,935.9
Singapore	1.7	2.1	10,369.1	12,756.4
Slovenia	6.5	6.3	17,495.3	16,945.7
Spain	7.4	7.2	11,516.2	11,222.7
Sweden	2.9	2.8	13,982.6	13,379.0
Switzerland	3.9	3.9	16,958.0	16,985.9
United Kingdom	5.0	5.0	12,964.8	12,946.6
OECD +1 Average	6.3	6.2	15,376.2	15,393.5
Singapore Rank	28	28	27	21
No. of Countries	28	28	29	29

Source: OECD, 2021a. Data for Singapore is from the OECD/WHO, 2020 report. Calculations by authors. * Data for Canada and the Netherlands is for Curative Care Discharges

latest year available). Even after we adjusted for age, Singapore ranked last in physician consultations at 28th out of 28. After age adjustment, Singapore ranked 21st out of 29 for hospital discharges.

Clinical performance and quality

This section compares the performance of each country based on 10 indicators of clinical performance split among acute care, cancer care, and patient safety. In Table 3.10 we present the absolute rate for each indicator, the performance for each country is based on the upper and lower confidence intervals of that rate (calculated by the OECD) in relation to the calculated average range for the included countries for seven out of 10 indicators. For a more detailed discussion of indicator selection, see Moir and Barua (2021).

Acute care

Singapore ranks 20th out of 23 for the rate of hip-fracture surgery initiated within 48 hours after admission to the hospital. Singapore performed statistically worse than the average for its performance on the indicator measuring 30-day mortality after admission to hospital for advanced medical imaging (AMI), ranking 27th out of 28. Singapore ranked 7th out of 28 countries (better than average) in 30-day mortality after admission to a hospital for a hemorrhagic stroke and 5th out of 28 countries (better than average) in 30-day mortality after admission to a hospital for an ischemic stroke.

Cancer care

Singapore ranks 25th out of 27 countries on the indicator measuring the rate of five-year survival after treatment for breast cancer (worse than average), 24th (out of 27) measuring the rate of five-year survival after treatment for cervical cancer (not statistically different from the average), 20th (out of 27) measuring the rate of five-year survival for colon cancer (not statistically different from the average), and 21st (out of 27) measuring the rate of five-year survival for rectal cancer (not statistically different from the average).

Patient safety

Singapore ranked 17th (out of 21) for its performance on the indicator measuring obstetric trauma during a vaginal delivery with an instrument, and 9th (out of 21) for its performance on the indicator measuring obstetric trauma during a vaginal delivery without an instrument.

In summary, Singapore performs well on three indicators of clinical performance and quality, and average on three, while its performance on the remaining four is poor.

Health status

We included three indicators to assess the health status of Singapore and other comparator countries. The first is life expectancy at birth, an indicator that measures the average

Table 3.10a: Clinical performance and quality, 2019 and 2010-2014

Country	Breast cancer (five year net survival, 2010-2014, female, 15 years old and over, age-standardised survival %)	Cervical cancer (five year net survival, 2010-2014, female, 15 years old and over, age-standardised survival %)	Colon cancer (five year net survival, 2010-2014, 15 years old and over, age-standardised survival %)	Rectal cancer (five year net survival, 2010-2014, 15 years old and over, age-standardised survival %)	Admission-based AMI 30 day in-hospital mortality (age-sex standardised rate per 100 patients; 45 years old and over)
Australia	89.5 b	66.4 a	70.7 b	71 b	3.2 b
Austria	84.8 a	63.9 a	63.7 a	64.2 a	5.2 b
Belgium	86.4 a	65.4 a	67.9 b	66.6 b	6.4 a
Canada	88.6 b	67.3 a	67 b	67.1 b	4.6 b
Czech Republic	81.4 w	61 w	56.1 w	52.3 w	7 a
Denmark	86.1 a	69.5 a	61.6 a	64.8 a	4.5 b
Finland	88.5 b	67.4 a	64.9 a	64.4 a	6.8 a
France	86.7 a	65 a	63.7 a	60.9 a	5.6 a
Germany	86 a	65.2 a	64.8 a	62.3 a	8.3 w
Greece	-	-	-	-	-
Iceland	89.1 a	80.1 b	68.2 a	63 a	2 b
Ireland	82 w	63.6 a	60.5 w	61.7 a	4.7 b
Israel	88 b	66.6 a	71.7 b	67.8 b	5.3 a
Italy	86 a	66.8 a	64.2 a	61.3 a	5.4 b
Japan	89.4 b	71.4 b	67.8 b	64.8 a	9.7 w
Korea	86.6 a	77.3 b	71.8 b	71.1 b	8.9 w
Latvia	76.9 w	53.9 w	48.8 w	49.5 w	14.4 w
Lithuania	73.5 w	59.2 w	56.9 w	52.7 w	9.3 w
Luxembourg	-	-	-	-	8.5 a
Netherlands	86.6 a	67.5 a	63.1 a	65.3 a	2.9 b
New Zealand	87.6 a	67.4 a	64 a	66 a	4.3 b
Norway	87.2 a	73.2 b	64.9 a	68.3 b	3.2 b
Portugal	87.6 a	66.2 a	60.9 a	59.6 a	7.3 w
Singapore	80.3 w	63.4 a	61.7 a	60.5 a	9.9 w
Slovenia	83.5 a	65.5 a	61.9 a	60.3 a	4.2 b
Spain	85.3 a	64.6 a	63.3 a	59.5 a	6.5 a
Sweden	88.8 b	68.3 a	64.9 a	64.7 a	3.5 b
Switzerland	86.2 a	71.4 a	67.3 b	67.3 b	5.1 b
United Kingdom	85.6 a	63.8 a	60 w	62.5 a	6.6 a
OECD +1 Average	85.5	66.7	63.8	62.9	6.2
Singapore Rank	25	24	20	21	27
No. of Countries	27	27	27	27	28

Source: OECD, 2022.

Table 3.10b: Clinical performance and quality, 2019 and 2010–2014

Country	Admission-based Hemorrhagic stroke 30 day in-hospital mortality (age-sex standardised rate per 100 patients; 45 years old and over)	Admission-based Ischemic stroke 30 day in-hospital mortality (age-sex standardised rate per 100 patients; 45 years old and over)	Hip-fracture surgery initiated within 48 hours after admission to the hospital (crude rate per 100 patients; 65 years old and over)	Obstetric trauma vaginal delivery with instrument, 2019 (crude rate per 100 vaginal deliveries, female, 15 years old and over)	Obstetric trauma vaginal delivery without instrument, 2019 (crude rate per 100 vaginal deliveries, female, 15 years old and over)
Australia	19.9 a	5.4 b	-	6.2	2.4
Austria	18.4 b	6.1 b	90.2	-	-
Belgium	26.4 w	7.9 a	87	3.4	0.7
Canada	23.6 a	7.5 a	93.1	16.3	3.4
Czech Republic	25.8 w	10.3 w	80.9	-	-
Denmark	23.9 a	4.8 b	97.6	12.7	2.9
Finland	23.4 a	8.4 w	86.8	2.9	1.0
France	22.4 a	7.1 a	-	-	-
Germany	22 a	6.2 b	92.1	6.4	1.5
Greece	-	-	-	-	-
Iceland	8.7 b	3.9 b	95.2	-	-
Ireland	23 a	6.7 a	87.5	3.7	1.5
Israel	20.4 a	5.8 b	88.1	1.9	0.5
Italy	19.8 a	6.3 b	69.7	2.4	1.3
Japan	11.9 b	3 b	-	-	-
Korea	15.4 b	3.5 b	-	-	-
Latvia	40 w	19.6 w	35	3.3	0.4
Lithuania	32.3 w	12.4 w	64.9	1.0	0.4
Luxembourg	17.8 a	7.5 a	-	-	-
Netherlands	24.5 w	5 b	95.4	3.4	2.6
New Zealand	20.9 a	6.5 a	92	9.3	1.8
Norway	15.8 b	3.8 b	96.6	2.7	1.3
Portugal	24.6 a	9.8 w	41.5	2.7	0.5
Singapore	17.3 b	4.3 b	64.4	7.5	1.2
Slovenia	25.1 a	10.8 w	70.9	3.4	0.8
Spain	27.7 w	9.3 w	55.6	4.6	0.9
Sweden	15.3 b	5.4 b	93.7	9.9	2.1
Switzerland	15.4 b	5.4 b	90.8	7.3	2.1
United Kingdom	27.5 w	9 w	88.7	5.8	2.4
OECD +1 Average	21.8	7.2	80.8	5.6	1.5
Singapore Rank	7	5	20	17	9
No. of Countries	28	28	23	21	21

Source: OECD, 2022.

Table 3.11: Health status, 2019

Country	Life expectancy at birth, years (2019)	Healthy life expectancy (HALE), years (2019)	Deaths per 1,000 live births (2019)
Australia	83.0	70.9	3.2
Austria	81.7	70.9	2.9
Belgium	81.4	70.6	3.4
Canada	82.2	71.3	4.4
Czech Republic	79.1	68.8	2.4
Denmark	81.3	71.0	3.2
Finland	81.6	71.0	1.9
France	82.5	72.1	3.4
Germany	81.7	70.9	3.2
Greece	81.1	70.9	3.7
Iceland	82.3	72.0	1.6
Ireland	81.8	71.1	2.7
Israel	82.6	72.4	3.0
Italy	83.0	71.9	2.6
Japan	84.3	74.1	1.9
Korea	83.3	73.1	2.7
Latvia	75.4	66.3	3.5
Lithuania	76.0	66.7	3.0
Luxembourg	82.4	71.6	2.3
Netherlands	81.8	71.4	3.5
New Zealand	82.0	70.2	4.1
Norway	82.6	71.4	1.9
Portugal	81.6	71.0	2.8
Singapore	83.2	73.6	2.0
Slovenia	81.3	70.7	1.8
Spain	83.2	72.1	2.7
Sweden	82.4	71.9	2.2
Switzerland	83.5	72.5	3.6
United Kingdom	81.4	70.1	3.7
OECD +1 Average	81.7	71.1	2.9
Singapore Rank	4	2	6
No. of Countries	29	29	29

Source: WHO, 2020b

number of years a person can be expected to live assuming age-specific mortality levels remain constant (OECD, 2015). We also use a measure called healthy life expectancy (HALE) that reflects how long individuals in a country can be expected to live in a good state of health (or not in a poor state of health). Finally, we use one measure of mortality, infant mortality, which counts the probability of death between birth and one-year of age (per 1,000 live births).⁴⁹ Overall, we see Singapore performing well on these measures—ranking 4th (out of 29) for life expectancy at birth; 2nd (out of 29) for health-adjusted life expectancy; and 6th best (out of 29th) for infant mortality.

Summary of performance

When examined alongside other universal health-care systems from high income countries around the world, Singapore is clearly one of the least expensive (as a share of the economy) overall. Its performance with regard to the availability of medical resources is relatively low and below the OECD average. When it comes to the use of resources, Singapore reports a low level of hospital activity and doctor consultations. Its record on clinical performance is mixed, but compared with the full OECD cohort, it performs better on three, average on three, and below average on four out of 10 indicators.

Overall, Singapore lags behind other OECD countries on the majority of indicators of performance examined. However, it could be said that such performance is in concordance with its comparatively low spending (as a share of the economy) on a value-for-money basis. Notably, Singapore performs better than the average OECD+1 country on three indicators of clinical performance and quality, as well as all three indicators of health status (although these are impacted by various factors outside the direct purview of the health care system).

Conclusion

The Singaporean health-care system represents a departure, in both philosophy and design, from those that have been implemented throughout much of the developed world during the twentieth century. In particular, while the universal health-care systems studied in this paper generally fit into one of two categories i) tax-funded systems where government is the primary insurer and ii) social health insurance (SHI) systems with multiple competing insurers, Singapore's approach is unique (while sharing features of both).

Singapore's mixed multi-payer health-care system provides universal coverage through a combination of programs collectively known as the 3Ms:

1. MediShield Life: a mandatory basic insurance scheme requiring premium payments that is predominantly tax supported;
2. MediSave: a compulsory national savings scheme that helps Singaporeans set aside part of their income to pay for their own or a dependent's medical expenses; and
3. MediFund: a safety net for the poor and those who exhaust their MediSave accounts, established through a government investment fund.

While there is a great degree of overlap between aspects of Medishield Life and the tax-funded and social health insurance (SHI) universal health-care systems discussed in this chapter, the reliance on MediSave as a core aspect of its universal health-care system sets Singapore apart from every other universal health-care system examined in this paper.

More generally, Singapore's health-care system departs in a number of ways from the approaches of more restrictive public health-care systems (like Canada's), and aligns closer to the eight high-performing countries studied in this chapter that partner with the private sector, fund hospitals based on activity, and expect patients to share in the cost of treatment. Singapore has a permissive private insurance marketplace that allows coverage for core services as well as expanded choice and faster access—an approach that is in line with the vast majority of universal health-care systems documented elsewhere. Singapore also delivers care through a system of both public and private hospitals, with almost 39 percent of its acute care hospitals categorized as for-profit institutions (similar proportions are found in Australia and Germany). Singapore's approach to hospital funding is also a mixture of approaches seen elsewhere—combining activity-based funding for public hospitals with block grants. Like most of the countries examined, Singapore allows specialists working in the public sector to see both private and public (subsidized) outpatients while working in hospital clinics and National Care Centres.

Finally, cost-sharing is a key component of Singapore's health-care system. Patients are expected to pay a deductible before their MediShield Life insurance begins covering the cost of care, co-insurance rates are applied to the cost of care post-deductible, and co-payments are routinely required for different forms of outpatient care. This approach aligns with those of the vast majority of universal health-care systems around the world.

In terms of performance, relative to members of the OECD (of which it is not a part), Singapore was the lowest spender as a percentage of the economy, and ranked in the middle of the pack (10th) for health-care spending per capita on an age-adjusted basis. Somewhat in line with this low level of spending, Singapore performed poorly on all measures of availability and utilization of medical resources. However, while Singapore's performance on measures of clinical performance and quality were worse than the OECD+1 average on four measures, it performed better on three. Overall, Singapore performed below the OECD+1 average on 14 of 17 indicators of performance. While Singapore's performance is often behind other OECD countries, it could be said that such performance is in concordance with its relative (low) spending as a percentage of its economy on a value-for-money basis.

In addition, although indicators of health status are impacted by various factors outside the direct purview of the health-care system, it should be noted that Singapore performed comparatively well on all three measures examined in this report.

The description of Singapore's mixed multipayer system presented in this paper adds to the wealth of knowledge of how universal health-care countries—including high performers like Switzerland, Germany and the Netherlands—partner with the private sector, fund hospitals based on activity, and expect patients to share in the cost of treatment.

In addition, Singapore’s unique utilization of health savings accounts—which enable individuals to save money to use for their health-care needs when they are failed by the government system—provides a new dimension for consideration as an alternative to government monopolies over the funding and delivery of services within a universal healthcare framework.

Notes

- 1 Other key national organizations include the Agency for Care Effectiveness, the Health Sciences Authority, and the Health Promotion Board.
- 2 The three key groups (also known as “clusters”) are the National Healthcare Group, the National University Health System, and Singapore Health Services
- 3 Haseltine (2013) describes major restructuring of Singapore’s hospitals over the course of the 1980s and 1990s. Reforms in the 80s were designed to give hospitals “greater autonomy to function more like private hospitals than public institutions under a central control.” The goal of corporatization was to encourage hospitals to compete against one another for patient fees with “unsubsidized wards... meant to serve as a benchmark in terms of quality and price for the private sector” (10). However, increased costs and affordability issues required extensive government intervention in the 1990s in “...all significant aspects of hospitals’ operations, their autonomy notwithstanding: the types and volume of specialised clinical services they provide, the fees they charge, the salaries they pay, and the expensive equipment they purchase. It also tweaked the formula by which it paid hospitals, to ensure that hospitals did not under- or over-supply services” (Ramesh and Bali, 2017: 3).
- 4 These four accounts include the Ordinary Account (for housing and insurance); the Special Account (for old age and investing in retirement products; iii) the Medisave Account (for specific hospitalization and health-care expenses) and the Retirement Account (created for those over the age of 55).
- 5 Government subsidies for care and coverage play a major role in the affordability of care. They are funded through general tax revenue and “...are based on the principles of fiscal balance and affordability” (Earn, 2020: 171).
- 6 Established in 1990, MediShield was originally designed to provide “...assistance to individuals with prolonged illnesses that may require long-term medical treatment” in subsidized hospital wards (Class C and B2) and “...cover a portion of expenses for hospitalization and certain outpatient treatments, such as kidney dialysis and approved cancer treatments” but only under “designated circumstances” (Haseltine, 2013: 52). Singaporeans were automatically enrolled in this insurance scheme, expected to pay annual premiums on an age adjusted basis, but were able to opt out of their own accord.
- 7 Depending on their age and income, Singaporeans can have their premiums subsidized at a rate of 15-50%.
- 8 For a list of broad categories considered as serious pre-existing conditions, see Ministry of Health (2021f), <<https://www.moh.gov.sg/home/our-healthcare-system/medishield-life/what-is-medishield-life/coverage-for-pre-existing-conditions>>.
- 9 Wards are classified as A [single-bed, air-conditioner, TV], B1 [four beds, air-conditioner, TV], B2 [six beds, self-ventilated, no TV] and C [eight to 10 beds, self-ventilated, no TV]. Wards A and B1 are often referred to as unsubsidized wards receiving zero and 20 percent subsidy, respectively, while B2 and C wards are generally referred to as “subsidized wards” receiving subsidies of 50-65 percent and 65-80 percent, respectively (Ministry of Health, n.d.-a).
- 10 Ordinary monthly wages considered for contributions by the CPF for all accounts are capped at S\$6,000 per month (in 2022). Top ups can be made up until the Basic Healthcare Sum or BHS is reached. (Central Provident Fund Board, 2021e, 2022b, 2022c).
- 11 See Central Provident Fund Board (2022d), <<https://www.cpf.gov.sg/content/dam/web/member/healthcare/documents/list-of-medical-institutions-medisave-medishield-life.pdf>>.

- 12 See Central Provident Fund Board (2023), <<https://www.cpf.gov.sg/member/healthcare-financing/using-your-medisave-savings/using-medisave-for-outpatient-treatments>>.
- 13 In 2007 Medifund Silver was created to provide targeted assistance for the elderly, and in 2013 Medifund Junior was created to targeted assistance for children.
- 14 While MediFund applications are assessed holistically and on an individual basis (the applicants and their family, financial, health and social circumstances), basic criteria required for consideration include: they must i) be a Singaporean citizen; ii) be a subsidized patient; iii) have received or require treatment from a MediFund approved institution; iv) have trouble with medical bills after exhausting government subsidies, MediShield Life, Medisave, and cash.
- 15 Integrated Shield Plans come in five basic types - i) Basic Plans; ii) Standard Integrated Shield Plan (for Public Hospital Class B1 Coverage); iii) Class B1 Plans; iv) Class A Plans; v) Private Hospital Plans. A breakdown of the differences in benefits offered by individual plans, and their corresponding categories, is beyond the scope of this paper (see Ministry of Health, 2021b, for links that allow for a comparison of plans).
- 16 For other case examples of how billing works under MediShield Life, see Central Provident Fund Board and Ministry of Health, 2015.
- 17 Patients are considered subsidized for outpatient specialist visits when they are referred by a polyclinic or a GP that is part of the Community Health Assist Scheme. If they are referred by a non-participating GP or do not have a referral, they are considered private patients. Private patients can choose the specialist they wish see, subsidized patients have one assigned to them (Earn, 2020).
- 18 The countries all share the goal of ensuring universal access to health care regardless of the patient's ability to pay and generally perform on par or better than Canada does (the primary focus of Esmail and Barua's 2018 report) on most indicators of performance (Moir and Barua, 2021).
- 19 Esmail and Barua's findings, as well as those of Fraser Institute's series Understanding Universal Health Care Reform Options, are primarily based on data from the OECD's 2016 survey of health system characteristics. However, data for Singapore in this section – which was not included in the OECD's survey – is from an array of different sources.
- 20 Some tax-funded countries, or subnational regions within them, also use health focused levies/taxes that are ostensibly used to generate additional revenue for health care. England, for example, has a Health and Social Care Levy (United Kingdom, 2022). Australia also has a Medicare Levy (Australian Taxation Office, 2021). Some Canadian provinces, such as British Columbia, at one point used health insurance premiums, but they were eliminated on January 1, 2020 (British Columbia Ministry of Health, 2020). It should be noted that in Canada these levies contributed to general revenues.
- 21 Although Canada has a single public insurance entity for each province.
- 22 The types of direct care that are subsidized include hospital care in C and B2 wards, primary care visits at a polyclinic, specialist care visits (depending on residency status), emergency care, and intermediate- to long-term care post-hospital discharge (Earn, 2020)
- 23 Germany, the Netherlands, and Switzerland also fund their health-care systems, to varying degrees, from general tax revenue and government grants (Blümel and Busse, 2020; Sturny, 2020; Wammes et al., 2020).
- 24 For a comparison of Integrated Shield plans, see Ministry of Health (2021b), <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life/comparison-of-integrated-shield-plans>>, and Lim (2022), <<https://blog.moneysmart.sg/health-insurance/integrated-shield-comparison/>>.
- 25 While not a medical savings account per se, the German PHI system does have a savings component intended to support premium increases in old age.
- 26 This is typically used after Medishield Life payouts have been applied and Medisave accounts/cash reserves have been exhausted.
- 27 The question of who pays for the services—an individual, a public insurer, or a private insurer—is independent of the question of the ownership or profit motive of the institution where the service is delivered.
- 28 Canadian hospitals are technically classified as private not-for-profit institutions. This definition has, however, been challenged, as they “are governed largely by a political

- process, given wage schedules for staff, are told when investment can be undertaken, denied the ability to borrow privately for investment, told which investments will be funded for operation, and forcibly merged or closed by provincial governments” (Esmail and Walker, 2008). The OECD seems to agree, classifying no hospitals in Canada as private not-for-profit “as they are controlled by government units” (Esmail and Barua, 2018; OECD, 2021b: 1–2).
- 29 In Table 2, data for the Netherlands include for-profit hospitals that “do not have a license for health insurance coverage” as well as “the number of independent treatments.” The lower house of the Dutch parliament passed legislation in 2014 that would allow hospitals to operate on a for-profit basis and distribute profits to investors (Tweede Kamer der Staten-Generaal, 2015). This bill was still pending approval by the senate as of October 10, 2018 (Meersma, 2018).
 - 30 Again, it should be noted that the presence of private hospital ownership does necessarily imply that access to them is restricted to only those who are wealthy or those with private insurance. For example, private hospitals in Australia have an integrated role to play with the public system with “governments often contract[ing] with private hospitals for the provision of universally accessible services” (Esmail and Barua, 2018: 8).
 - 31 Most public hospitals and polyclinics are owned by one of three clusters, National University Health System, National Healthcare Group and Singapore Health Services (Earn, 2020; MOH Holdings, n.d.-b; Ramesh, 2008).
 - 32 In some ways, this is similar to the Australian health-care system, where patients can choose to be treated in hospital as either a public or a private patient. Private patients only receive 75 percent coverage of the federally determined provider fees for medical services through Medicare. Patients must bear the cost of this gap unless their insurance includes “gap coverage” that can top up unfunded portions for medical services (Barua and Esmail, 2015; Glover, 2020).
 - 33 Global budgets disconnect funding levels from service provision, resulting in fewer incentives for “higher or superior quality care,” fewer services, quicker discharges, avoiding costly patients, and “shifting patients to outside institutions” (Esmail and Barua, 2018:12). In exchange for this, government bureaucracies and hospitals enjoy a simpler, more direct, and predictable form of administration and budgeting.
 - 34 Esmail and Barua (2018: 14, citing Kumar and Schoenstein, 2013) note that even in the Netherlands, the budget is “set across the entire hospitals sector, while countries like France deploy “...a mix of both setting budgets at the hospital level and at the national level, and links this to a broader macroeconomic spending target across the health sector” (p. 19). However, Germany and Switzerland are not bound by these budgeting constraints.
 - 35 Above-the-block funding is also available to public hospitals who need it for “new initiatives and programs such as new service development, research, and education” (Earn, 2020).
 - 36 A patient is considered a subsidized patient if they receive a referral from a polyclinic. Referrals from a GP are considered private unless done so under the Community Health Assist Scheme. Self-referrals are considered to be private (Earn, 2020).
 - 37 The only countries in this cohort where all cost-sharing was absent for physician and hospital services are Canada and the United Kingdom.
 - 38 For more on the differences in incentives associated with each principal cost-sharing approach, see Barua and Moir (2022).
 - 39 The countries that have been included in this comparison can be seen in table P1.
 - 40 Moir and Barua (2021) include 40 indicators of performance. Because Singapore is not a member of the OECD, and is not a country of focus for the Commonwealth Fund International Health Policy Survey, there are several indicators for which data are not collected for Singapore. Indicators for which there were no data were omitted from this analysis. Notably, no indicators are available for access to resources
 - 41 However, these indicators can be influenced to a large degree by non-medical determinants of health that lie outside the purview of a country’s health-care system and policies.
 - 42 Older populations require higher levels of health-care spending as a result of consuming more health-care resources and services (Esmail and Walker, 2008)
 - 43 In 2019, Israel and Singapore only had 11.9 and 12.4 percent of their populations over the age of 65, respectively, versus the 28.4 and 22.9 percent reported in Japan and Italy.

- 44 Ramsay (2002) compared the performance of eight health-care systems, in which Singapore received a score of 62 out of 100 using a min-max method.
- 45 The difference in impact of the age-adjustment method between the two measures is likely due to the fact that Singapore reports a higher GDP per capita than every country (except Luxembourg) included for comparison. As a result, age-adjustment for Singapore’s young population (Singapore had the second smallest proportion of their population over the age of 65—in 2019 it was 6.1 percent lower than the OECD average) has a smaller effect on the first measure (reported as a proportion of GDP) in comparison with the second (reported in per capita terms only).
- 46 Nursing data for Singapore comes from the World Bank (which is in turn sourced from the OECD and the WHO). The data used by the remaining countries comes from the OECD database. This indicator for Singapore includes midwives in its count—whereas those used for other countries specifically exclude midwives. While this is a significant difference in operational definition, an examination of data for Japan—a country reported on in OECD and WHO (2020) and also an OECD member that regularly reports data to the OECD health statistics database—may be useful. According to the World Bank (2022b), Japan reports a 12.7 nurse and midwife availability rate per 1,000 in 2018, whereas in Japan, according to the OECD (2021), the availability of nurses alone per 1,000 in 2018 was 11.8—representing an 8 percent difference. As a result, strictly speaking, it is likely that the data provided here for Singapore is an over-estimation of the availability of professional nurses
- 47 The OECD notes that “[h]ospital activities are affected by a number of factors, including the capacity of hospitals to treat patients, the ability of the primary care sector to prevent avoidable hospital admissions, and the availability of post-acute care settings to provide rehabilitative and long-term care services” (OECD, 2015: 106).
- 48 As the CIHI points out, “the utilization of health-care services should be related to the need for services” and that “other things being equal, a healthier population would have less need for services than an unhealthier one” (2011: 17). However, this would also imply that a healthier population should therefore spend less on health-care services too (assuming other things, especially income, are equal). On the other hand, the provision of services (as measured by rates of use) can also be viewed as a purchased benefit, or simply an indication of the amount in services that a health-care system provides. This study makes no assertions about the optimal level for the use of medical services.
- 49 Citing Seeman, (2003), Esmail and Walker (2008: 76) note that while infant and perinatal mortality rates may “be affected by immigration from poor countries, unhealthy outlier populations, and other population demographics”.. Esmail and Walker (2008) further note that these can also serve as indicators of a well-functioning health-care system.” Further (Or, 2001: 8), Or suggests that “ the performance of a health system is often judged by its capacity to prevent deaths at the youngest ages.”

References for Chapter 3

- AIA (2021). *Integrated Shield Plan | AIA HealthShield Gold Max | AIA Singapore*. <<https://www.aia.com.sg/en/our-products/medical-protection/aia-healthshield-gold-max.html>>, as of November 3, 2023.
- Anell, Anders, Anna Glennard, and Sherry Merkur. 2012. Sweden Health System Review. *Health Syst Transit*, 14, 5.
- Australian Taxation Office (2021). *Medicare Levy*. Australian Taxation Office. <<https://www.ato.gov.au/Individuals/Medicare-and-private-health-insurance/Medicare-levy/>>, as of November 3, 2023.

- Barua, B., and N. Esmail (2015). *For-Profit- Hospitals and Insurers in Universal Health Care Countries*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/for-profit-hospitals-and-insurers-in-universal-health-care-countries.pdf>>, as of November 3, 2023.
- Barua, B., M. Moir (2022). *Understanding Universal Health Care Reform Options: Cost-Sharing for Patients*. Fraser Institute. <<https://www.fraserinstitute.org/studies/understanding-universal-health-care-reform-options-cost-sharing-for-patients>>, as of November 6, 2023.
- Blümel, M., and R. Busse (2020). *Germany: International Health Care System Profiles*. <<https://www.commonwealthfund.org/international-health-policy-center/countries/germany>>, as of November 3, 2023.
- British Columbian Ministry of Health (2020). *Monthly Rates (Premiums)—Province of British Columbia*. Province of British Columbia. <<https://www2.gov.bc.ca/gov/content/health/health-drug-coverage/msp/bc-residents/premiums>>, as of November 3, 2023.
- Canadian Institute for Health Information [CIHI] (2010). *A Primer on Activity-Based Funding*. CIHI.
- Canadian Institute for Health Information [CIHI] (2011). *Health Care Cost Drivers: The Facts*. Canadian Institute for Health Information.
- Central Provident Fund Board [CPF Board] (2021a). *CPF and You* <<https://www.cpf.gov.sg/member/cpf-overview>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2021b). *For Those with Serious Pre-existing Conditions, Why Do They Have to Pay Additional Premiums for MediShield Life* <<https://www.cpf.gov.sg/member/faq/healthcare-financing/medishield-life/why-those-with-serious-pre-existing-condition-pay-additional>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2021c). *Healthcare List of Medical Institutions Participating in MediSave Scheme*. <https://www.cpf.gov.sg/Assets/members/Documents/Medisave_MedicalInstitutions.pdf>, as of January 12, 2024.
- Central Provident Fund Board [CPF Board] (2021d). *MediSave*. <<https://www.cpf.gov.sg/Members/Schemes/schemes/healthcare/medisave>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2021e). *FAQs: What is the Basic Healthcare Sum?* <<https://www.cpf.gov.sg/member/faq/healthcare-financing/basic-healthcare-sum/what-is-the-basic-healthcare-sum>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2022a). *Account Services: Distribution of Your CPF Savings upon Your Passing*. <<https://www.cpf.gov.sg/member/account-services/account-closure/paying-out-cpf-when-you-pass-away>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2022b). *Growing Your Savings: Top Up Your MediSave Account to Save More for Healthcare Needs*. <<https://www.cpf.gov.sg/member/growing-your-savings/saving-more-with-cpf/top-up-your-medisave-savings>>, as of November 3, 2023.
- Central Provident Fund Board [CPF Board] (2022c). *Employer Obligations: What Payments Attract CPF Contributions*. <<https://www.cpf.gov.sg/employer/employer-obligations/what-payments-attract-cpf-contributions>>, as of November 3, 2023.

- Central Provident Fund Board [CPF] (2022d). *List of Medical Institutions Participating in MediSave / MediShield Life Scheme*. <<https://www.cpf.gov.sg/content/dam/web/member/healthcare/documents/list-of-medical-institutions-medisave-medishield-life.pdf>>, as of November 7, 2023.
- Central Provident Fund Board [CPF] (2022e). *What Happens if I Choose Not to Pay My Outstanding MediShield Life Premiums?* <<https://www.cpf.gov.sg/member/faq/healthcare-financing/medishield-life/what-happens-if-i-choose-not-to-pay-my-outstanding-premiums>>, as of November 3, 2023.
- Central Provident Fund Board [CPF] (2023). *Using Medisave for Outpatient Treatments*. <<https://www.cpf.gov.sg/member/healthcare-financing/using-your-medisave-savings/using-medisave-for-outpatient-treatments>>, as of November 3, 2023.
- Central Provident Fund Board and Ministry of Health (2015). *MediShield Life: Better Protection. For All. For Life*. <<https://www.moh.gov.sg/docs/librariesprovider5/about-us/englishinformationbookletforthenewlyinsured.pdf>>, as of November 3, 2023.
- Duckett, S. (2015). Issues in the Design and Implementation of Case-Based Payment. In Peter Leslie Anear and Dale Huntington (eds.), *Case-Based Payment Systems for Hospital Funding in Asia: An Investigation of Current Status and Future Directions. Comparative Country Studies* (Asia Pacific Observatory on Health Systems and Policies and OECD) 1 (2): 26–52. <https://apps.who.int/iris/bitstream/handle/10665/208246/9789290617327_eng.pdf?sequence=1&isAllowed=y>, as of November 3, 2023.
- Earn, L. C. (2020). The Singaporean Health Care System. In Roosa Tikkanen, Robin Osborn, Elias Mossialos, Ana Djordjevic, and George Wharton (eds.), *2020 International Profiles of Health Care Systems*. Commonwealth Fund. <https://www.commonwealthfund.org/sites/default/files/2020-12/International_Profiles_of_Health_Care_Systems_Dec2020.pdf>, as of November 3, 2023.
- Esmail, N. (2021). *Understanding Universal Health Care Reform Options: Activity-Based Funding*. Fraser Institute. <<https://bit.ly/2RG9ntG>>, as of November 3, 2023.
- Esmail, N., and B. Barua (2018). *Is the Canada Health Act a Barrier to Reform?* Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/is-the-canada-health-act-a-barrier-to-reform.pdf>>, as of November 3, 2023.
- Esmail, N., and M. Walker (2008). *How Good Is Canadian Health Care? 2008 Report: An International Comparison of Health Care Systems*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/HowGoodisCanadianHealth-Care2008.pdf>>, as of November 3, 2023.
- Globerman, Steven (2020). *Understanding Universal Health Care Reform Options: Private Insurance*. Fraser Institute. <<https://www.fraserinstitute.org/sites/default/files/understanding-universal-health-care-reform-options-private-insurance.pdf>>, as of January 12, 2024.
- Glover, L. (2020). The Australian Health Care System. In Roosa Tikkanen, Robin Osborn, Elias Mossialos, Ana Djordjevic, and George Wharton (eds.), *2020 International Profiles of Health Care Systems*. Commonwealth Fund. <https://www.commonwealthfund.org/sites/default/files/2020-12/International_Profiles_of_Health_Care_Systems_Dec2020.pdf>, as of November 3, 2023.

- Haseltine, W. (2013). *Affordable Excellence: The Singapore Healthcare Story*. Brookings Institution and the National University of Singapore Press. <<https://www.brookings.edu/book/affordable-excellence/>>, as of November 3, 2023.
- Ho, P. K. (2010). *Health Technology Assessment & Policy Making. The Singapore Experience* [HTA Workshop]. First Global Forum on Medical Devices.
- Kumar, A., and M. Schoenstein (2013). Managing Hospital Volumes: Germany and Experiences from OECD Countries. *OECD Health Working Papers* 64. OECD <<https://dx.doi.org/10.1787/5k3xwtg2szzr-en>>, as of November 3, 2023.
- Lim, C. (2022). *Integrated Shield Plans Premium & Coverage Comparison: Which is the Best IP Plan?* (2022). Moneysmart. <<https://blog.moneysmart.sg/health-insurance/integrated-shield-comparison/>>, as of November 3, 2023.
- Meersma, K. (2018). *For-Profit Hospital Care: Don't Hold Your Breath*. International Law Office. <https://rgakdwebsite.blob.core.windows.net/akdfiles/1746/AKD_ILO_For-profit_hospital_care_dont_hold_your_breath_KMeersma.pdf>, as of November 3, 2023.
- Ministry of Health (1983). National Health Plan: A Blue Paper. <https://eservice.nlb.gov.sg/flipviewer/data/booksg_publish/6/6abae60d-e19f-4b4b-b480-f6dde3219709/web/html5/index.html?opf=tablet/BOOKSG.xml&launchlogo=tablet/BOOKSG_BrandingLogo_.png>, as of January 12, 2024.
- Ministry of Health (1993). Affordable Health Care: A White Paper. <https://www.moh.gov.sg/docs/librariesprovider5/resources-statistics/information-papers/affordable_health_care.pdf>, as of January 12, 2024.
- Ministry of Health Singapore (n.d.-a). *10 Top Common Myths of Singapore Health Care*. <[https://www.moh.gov.sg/docs/librariesprovider5/resources-statistics/educational-resources/en_mohprint_a4_\(s\)9c82e05e9347498797945d46056d9050.pdf](https://www.moh.gov.sg/docs/librariesprovider5/resources-statistics/educational-resources/en_mohprint_a4_(s)9c82e05e9347498797945d46056d9050.pdf)>, as of November 3, 2023.
- Ministry of Health Singapore (n.d.-b). *Fee Benchmarks for Private Sector Charges—Frequently Asked Questions*. <<https://www.moh.gov.sg/docs/librariesprovider5/default-document-library/faqs-on-fee-benchmarks-%28for-public%29.pdf>>, as of November 3, 2023.
- Ministry of Health Singapore [MOH] (2020a). *Health Facilities*. <<https://www.moh.gov.sg/resources-statistics/singapore-health-facts/health-facilities>>, as of November 3, 2023.
- Ministry of Health Singapore [MOH] (2020b). *About Us*. <<https://www.moh.gov.sg/about-moh>>, as of November 3, 2023.
- Ministry of Health Singapore [MOH] (2020c). *MediShield Life*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life>>, as of November 3, 2023.
- Ministry of Health Singapore [MOH] (2021a). *About Integrated Shield Plans*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life/about-integrated-shield-plans>>, as of November 3, 2023.

- Ministry of Health Singapore [MOH] (2021b). *Comparison Of Integrated Shield Plans*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life/comparison-of-integrated-shield-plans>>, as of November 4, 2023.
- Ministry of Health Singapore [MOH] (2021c). *Co-Payment in Integrated Shield Plans for Specific Hospital Categories and Breakdown of Average Claims Made through Full Riders of Integrated Shield Plans*. <<https://www.moh.gov.sg/news-highlights/details/co-payment-in-integrated-shield-plans-for-specific-hospital-categories-and-breakdown-of-average-claims-made-through-full-riders-of-integrated-shield-plans>>, as of November 4, 2023.
- Ministry of Health Singapore [MOH] (2021d). *MediFund*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medifund>>, as of November 4, 2023.
- Ministry of Health Singapore [MOH] (2021e). *Premium & Subsidy Tables*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life/medishield-life-premiums-and-subsidies/premium-subsidy-tables>>, as of November 4, 2023.
- Ministry of Health Singapore [MOH] (2021f). *Coverage for Pre-Existing Conditions*. <<https://www.moh.gov.sg/home/our-healthcare-system/medishield-life/what-is-medishield-life/coverage-for-pre-existing-conditions>>, as of November 4, 2023.
- Ministry of Health Singapore [MOH] (2022). *MediSave*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medisave>>, as of November 4, 2023.
- MOH Holdings (n.d.-a). *Our Divisions*. <<https://www.mohh.com.sg/about-us/our-divisions>>, as of November 4, 2023.
- MOH Holdings (n.d.-b). *What We Do*. <<https://www.mohh.com.sg/about-us/what-we-do>>, as of November 4, 2023.
- Moir, M., and B. Barua (2021). *Comparing Performance of Universal Health Care Countries, 2021*. Fraser Institute. <<https://www.fraserinstitute.org/studies/comparing-performance-of-universal-health-care-countries-2021>>, as of November 4, 2023.
- Or, Z. (2001). Exploring the Effects of Health Care on Mortality across OECD Countries. *OECD Labour Market and Social Policy Occasional Papers* 46 (discontinued). OECD. <<https://doi.org/10.1787/716472585704>>, as of November 4, 2023.
- Organisation for Economic Co-operation and Development [OECD] (2015). *Health at a Glance 2015: OECD Indicators*. OECD. <https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2015_health_glance-2015-en>, as of November 4, 2023.
- Organization for Economic Co-operation and Development. [OECD] (2016a). *Health Systems Characteristics Survey 2016*: <<https://qdd.oecd.org/subject.aspx?Subject=h-sc>>, as of November 4, 2023.
- Organization for Economic Co-operation and Development [OECD] (2016b). *Health Systems Characteristics Survey 2016: Glossary*. <<https://www.oecd.org/els/health-systems/OECD-HSC-Survey-2016-Glossary.pdf>>, as of November 4, 2023.
- Organisation for Economic Co-operation and Development [OECD] (2021a). *OECD Health Statistics 2021*. OECD. <<https://www.oecd.org/els/health-systems/health-data.htm>>, as of January 21, 2024.

- Organisation for Economic Co-operation and Development (2021b). *OECD Health Statistics 2021 Definitions, Sources and Methods: Not-for-Profit Privately Owned Hospitals*.
- Organisation for Economic Co-operation and Development [OECD] (2022). OECD Health Statistics 2022. OECD. <<https://www.oecd.org/els/health-systems/health-data.htm>>, as of January 21, 2024.
- Organization for Economic Cooperation and Development and World Health Organization (2020). *Health at a Glance: Asia/Pacific 2020—Measuring Progress Towards Universal Health Coverage*. <https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-asia-pacific-2020_26b007cd-en>, as of January 12, 2024.
- Ramesh, M. (2008). Autonomy and Control in Public Hospital Reforms in Singapore. *American Review of Public Administration* 38 (1), 62–79.
- Ramesh, M., and A. S. Bali (2017). The Healthcare System in Singapore. *Global Is Asian* 12. <<https://lkyspp.nus.edu.sg/gia/article/the-healthcare-system-in-singapore>>, as of January 30, 2024.
- Ramsay, C. (2002, September 26). *Universal, Affordable, Quality Health Care: Ideas from Other Countries*. Luncheon speech at the University Club. Montreal Economic Institute, <https://www.iedm.org/files/presentation260902_en.pdf>, as of November 4, 2023.
- Seeman, N. (2003). *Canada's Missing News—Part II: Lower Infant Mortality Rankings*. Fraser Forum. <https://epe.lac-bac.gc.ca/100/201/300/fraser/fraser_forum/pdf/2003/03-03/CanadasMissingNews.pdf>, as of November 4, 2023.
- Sturny, S. (2020). *The Swiss Health Care System*. In Roosa Tikkanenen, Robin Osborn, Elias Mossialos, Ana Djordjevic, and George Wharton (eds.), *2020 International Profiles of Health Care Systems*. Commonwealth Fund. <<https://www.commonwealthfund.org/international-health-policy-center/countries/switzerland>>, as of November 4, 2023.
- Tweede Kamer der Staten-Generaal (2015). *Amendments to the Client Rights Care Act*. <<http://www.tweedekamer.nl/kamerstukken/wetsvoorstellen/detail?id=2012Z02330&dossier=33168>>, as of November 6, 2024.
- United Kingdom (2022). *Health and Social Care Levy*. Policy Paper. <<https://www.gov.uk/government/publications/health-and-social-care-levy/health-and-social-care-levy>>, as of January, 2024.
- World Bank (2022a). *GDP Per Capita, PPP (Current International \$)*. <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?name_desc=false>, as of November 4, 2023.
- World Bank (2022b). *Nurses and Midwives (per 1,000 People)*. <<https://data.worldbank.org/indicator/SH.MED.NUMW.P3>>, as of November 4, 2023.
- World Bank (2022c). *World Development Indicators*. <<https://databank.worldbank.org/source/world-development-indicators>>, as of November 4, 2023
- World Health Organization. (2020a). *Global Health Expenditure Database*. <<https://apps.who.int/nha/database/Select/Indicators/en>>, as of January, 2024.

World Health Organization. (2020b). *Global Health Observatory*. <<https://www.who.int/data/gho>>, as of January, 2024.

Wammes, J., N. Stadhouders, and G. Westert (2020). *The Dutch Health Care System*. In Roosa Tikkanenen, Robin Osborn, Elias Mossialos, Ana Djordjevic, and George Wharton (eds.), *2020 International Health Care System Profiles*. Commonwealth Fund. <<https://www.commonwealthfund.org/international-health-policy-center/countries/netherlands>>, as of November 4, 2023.

Wouters, O. J., J. Cylus, W. Yang, S. Thomson, and M. McKee (2016). Medical Savings Accounts: Assessing Their Impact on Efficiency, Equity and Financial Protection in Health Care. *Health Economics, Policy and Law* 11 (3), 321–335. <<https://doi.org/10.1017/S1744133116000025>>, as of November 4, 2023.

Yew, L. K. (2000). *From Third World to First—The Singapore Story: 1965—2000*. Harper Collins.

SINGAPORE'S PRIMARY AND SECONDARY EDUCATION SYSTEM: THE USE OF EDUCATION SAVINGS ACCOUNTS TO FUEL STUDENT ACHIEVEMENT

Paige MacPherson

Introduction

Singapore, a small island city-state in Southeast Asia, is home to about 5.7 million residents, a little larger than British Columbia's 5 million. Singapore underwent dramatic economic and educational transformation in the twentieth century, shifting from a poor nation with high illiteracy and unemployment to one of the world's most advanced economies. Now it boasts world-leading student achievement scores on international tests and an adult literacy rate of 97 percent (World Bank, 2020). Education in Singapore was a high priority during this economic transformation, playing a key role in the country's progress. The remarkable transition raises the question: what can other countries learn from the policies that have advanced Singapore's student success?

The go-to policy solutions often trumpeted in North America are not the answer in this case. It is not simply more money. Education is a priority expenditure for the Singaporean government, yet Singapore's total government expenditure on education as a percentage of GDP lags far below the global average. Indeed, it is about half of Canada's share—though Singapore's per capita GDP is more than double Canada's, making Singapore's spending on education relatively similar to Canada's on a per-person basis (World Bank, 2021a). Per-student operational spending in Singapore and that in Canada (detailed later) are almost the same. It's not a question of smaller class sizes: class sizes and school sizes in Singapore both exceed the OECD average, and high school classes house eight more students on average than those in Canada (Allison, 2019). Nor is it a question of more progressive curricula, educational inclusion policies or a retreat from standardized testing. Singapore's national curriculum is knowledge-based and teacher-directed. Students are streamed into academic bands, and though the country is beginning to incorporate some holistic curricular approaches, the norm is routine assessment of students, teachers, and schools via academic exams, with corresponding monetary rewards.

Competition and academic rigour are key features of Singapore's education system. This is supported not only by policies within the classroom, but also by education savings accounts used to reward student achievement, lift lower-income students, and fund limited

educational alternatives, including private tutoring and enrichment activities at independent schools. This educational savings system supports the government's overall aspirations of meritocracy and personal responsibility.

Edusave Accounts for Singaporean citizens are funded by the Singaporean government and are part of Singapore's well-established system of forced savings accounts for post-secondary education, and other programs. The latter draw funds from individuals, while Edusave Accounts set government funds aside exclusively for individuals. Though education in Singapore is heavily subsidized and regulated by government, Singapore's Edusave Accounts give parents ownership over a specific allotment, which they can choose to spend supporting their child's education. The amounts are modest, but in this way, the government empowers parents with personal responsibility, rather than using those funds to create additional government programs. If unused, the funds are rolled into forced post-secondary savings accounts.

Government primary and secondary school is fully funded in Singapore, aside from small parent fees. Autonomous government-aided schools and speciality schools are funded by government to a lesser degree, as are some independent schools (detailed later in the paper). Edusave grants reward student success in academics and other areas and help fund independent school for some students, including lower-income students and high achievers.

This paper will give a descriptive overview of Singapore's primary and secondary schools: their history, funding, types of schools and key features, illustrating how meritocracy and personal responsibility are woven through the education system and supported by the country's Edusave Accounts, ultimately bolstering student success and Singapore's international standing.

The history of Singapore's education system

Singapore's rapid transformation from a developing country with high illiteracy to a modern service economy included the bolstering of its education system, which skyrocketed to the top of international rankings in recent decades.

Established in 1819 by Sir Stamford Raffles as a British trading post, Singapore gained self-governance in 1959 after a period of Japanese occupation during World War II. Singapore was returned to British rule, then merged with Malaysia for two years as a state under the Federation of Malay. This caused significant social unrest, resulting in Singapore's expulsion from the federation. Singapore became a fully independent city-state in 1965, initially experiencing high unemployment, precarious housing, rampant crime and corruption, deep government budget deficits and poor education. As noted by Choon-yin (2017), beating back the influence of communism became a priority for the government, which quickly spent on economic development and public education. By the 1970s, employment rates were strong. Over the next several decades, Singapore advanced rapidly.

The first educational institution in Singapore was opened by Raffles in 1823, then known as the Singapore Institution. According to the National Library of Singapore (2009), it still functions today as an independent school called the Raffles Institution.

Singapore became an independent republic under Prime Minister Lee Kuan Yew (prime minister from 1959 to 1990). The National Center on Education and the Economy (2021) notes that an educated workforce was a priority for Lee Kuan Yew, who took Singapore from a largely illiterate country to a developed economy in one generation. Lee Kuan Yew's authoritarianism is not universally praised, but he is widely recognized as the founding father of Singapore's modern economy. Today, Singapore still falls short in political, civil and human rights, as per the World Bank's Governance Report (Choon-yin, 2017). If one looks at educational performance specifically, there is now a notable gap between Singapore and Malaysia, with Singapore the clear top performer.

The small independent school sector has experienced significant intervention by government throughout Singapore's history. In 1957, as discussed by Chan and Tan (2008), Singapore's Education Ordinance (later the Education Act) was introduced, requiring the registration of teachers, administrators and schools. Regulations assigned equal government funding to government schools and government-aided schools (community-based, autonomous schools) and mandated that staffing specifications be the same in both school types. Increased authority was given to the government director of education, and "this marked the beginning of moves toward a highly centralized system of education, especially with nearly all private schools turning into government or government-aided schools" (Chang and Tan, 2008: 470). Over the next decade, during Singapore's journey to nationhood and independence, the education system became more centralized through increasingly standardized curricula and exams.

In 1985, noting that specialized schools had lost some of their uniqueness due to centralization, government officials expressed the need for more school autonomy, gave principals more authority to hire staff and choose curricula and teachers more flexibility to experiment with new methods (Chan and Tan, 2008: 471). However, the government maintained most of the established standards within each school. Around this time, Singaporean officials examined numerous independent schools in the United Kingdom and United States and decided to establish independent schools in Singapore that had a higher level of autonomy than was enjoyed by government and government-aided schools. This was intended to "stimulate educational innovation" and let schools respond better to the needs of students and parents (Chan and Tan, 2008: 471). Government subsidies for independent school attendance were introduced so no student would be barred from attending school for financial reasons. In 1988, several government-aided secondary schools applied successfully to become independent schools. Soon after, the government capped the number of independent schools in response to criticism that these schools were elitist. The cap has since been lifted, but the number of independent schools has increased only slightly.

Primary and secondary schools in Singapore: The basics

Government is heavily involved in most Singaporean schools, especially at the primary level, at which almost all schools for citizens are run by the government. National curricula are used to promote national unity and morality, and emphasize subject-specific knowledge through teacher-directed instruction (Choon-yin, 2017). Singapore is a multicultural society, and education is considered essential for social harmony. English is the primary language in Singaporean schools; it is considered a neutral language for all students from differing cultural backgrounds, while also preparing students for global competitiveness.

Meritocracy plays a major role in Singapore's education system. From a young age, Singaporean students take an exam called the Primary School Leaving Examination in grade six, which streams them into academic cohorts. Exams are used extensively throughout compulsory education. Financial awards are given to students regularly, based on performance in academics and other areas, such as the demonstration of character, technical skill and academic improvement (detailed later in the paper). Schools and teachers, too, are evaluated on a regular basis and are rewarded for exceptional performance. Throughout the system, competition is strongly fostered.

Singapore's government public schools and independent (private) schools are regulated by the government and receive government funding. Many students receive funding to attend so-called Private Educational Institutions (PEIs)—private tutoring and some independent schools—via Edusave Accounts. In general, independent education centres, including tutoring centres and independent schools, in Singapore must register their teachers, management, and courses with the government, and even need government approval to change a school's name, according to the Ministry of Education (no date [1]).

As described by the Ministry of Education (no date [2]), the school system extends from kindergarten, which encompasses preschool ages three to six; primary school, grade one (age six) up to grade six (age 12); and secondary school up to age 17, with compulsory education spanning ages six to 15. This applies to Singaporean citizens living in Singapore—expatriates are not required to abide by the compulsory education rules.

According to Singapore's national Compulsory Education Act (2000, section 2): national primary school means any institution for the provision of full-time primary education, being—

1. a school organised and conducted directly by the Government;
2. a school in receipt of grant-in-aid under the Education Act of 1957;
3. a school specified in any order made under section 3(1) of the School Boards (Incorporation) Act 1990; or
4. such other school as may be prescribed.

In other words, compulsory education in Singapore encompasses government schools, government-aided (autonomous) schools, government-funded special education schools and independent schools. Exceptions are allowed for students attending five designated

independently operated religious schools, or those being home-schooled. As discussed further below, official permission must be obtained in both cases.

Aside from international schools, which extend from primary to secondary school (detailed below), independent schools begin in secondary school for Singaporean citizens. However, there are several categories of autonomous schools that offer some government-funded educational alternatives in both primary and secondary school. It should be noted that all Singaporean schools charge some level of fees.

For Singaporean citizens, school is compulsory until age 15. The final year of secondary school is optional and allows students to then attend junior colleges or the Millennia Institute, a three-year, pre-university educational institute under the Ministry of Education with high academic standards and a focus on commerce.

According to the Ministry of Education (no date [3]), there are five types of schools in Singapore's primary and secondary education system:

1. Government schools, organized and conducted directly by the Ministry of Education, some of which are considered autonomous, meaning they teach the national curriculum and are still operated by the government, but they also offer some specialized programming and have some operational flexibility;
2. Government-aided schools set up by community organizations, some of which are considered autonomous, meaning they are funded by the government but not owned by the government, and all of which charge standardized fees and maintain educational standards set out by the government;
3. Independent schools, which are responsible for their own academic and non-academic programming and set their own fees but are regulated by the government—all of which are secondary schools. There are only eight independent schools of this type in Singapore.
4. Specialized independent schools: There are four of these schools in Singapore, the NUS High School of Mathematics and Science, the School of Science and Technology, the Singapore Sports School, and the School of the Arts.
5. Specialized schools, which focus on practical, hands-on learning for students who do not qualify for secondary school after completing the Primary School Leaving Examination after primary year 6. These schools equip students with an Institute of Technical Education skills certificate, which prepares them for employment or admission into a technical institute.

Additionally, there are seven designated schools—religious schools—for non-compulsory education in Singapore (see Compulsory Education (Exemption) Order (chapter 51, section 4[1])).

External to the national education system in Singapore, independent international schools primarily cater to expatriate families living in Singapore. There is a broad range of schools with curricula from the United States, Britain, Canada, and more. Singaporean citizens

must apply for an exemption from the government to attend these schools. International schools typically do not receive government funding and face far less regulation. They adopt their own curricula and are entirely divorced from the Ministry of Education. It is up to each school to determine the tuition cost, but most charge fees significantly higher than what one would find in national schools, ranging from around US\$22,000 to US\$36,000 per term, plus thousands of dollars in fees for applications, uniforms and exams (InterNations, no date).

Finally, Singapore's private tutoring centres are not part of the compulsory education system but are so widespread that they require acknowledgment. Singapore currently houses 779 private tutoring centres, which are registered with the national government and referred to on the Ministry of Education (no date [4]) database as private schools.

Table 4.1 summarizes the numbers of primary and secondary schools in Singapore, by type. At the primary level, there is a total of 182 schools, and at the secondary level, there is a total of 148 schools. According to the international schools database, there are 65 international schools, as of early 2023.

Table 4.1: Primary and Secondary Schools in Singapore, 2023

A List of Reforms	Primary	Secondary	Primary to Secondary
Government	136	101	
Government-Aided	46	36	
Autonomous	3	28	
Independent	N/A	8	
Specialised	N/A	4	
Specialised Independent	N/A	4	
International	12	7	46

Source: Ministry of Education (no date [5]), SchoolFinder and International Schools Database (no date).

Note: School number totals do not match up perfectly with the government's stated numbers of each school type, due to overlap between the categories, and do not include Singapore's seven non-compulsory schools.

Government operated schools make up three-quarters (74 percent) of all primary schools, while the remaining quarter, composed of government-aided and autonomous schools, are also largely operated by government—none of the primary schools are independently owned and operated. At the secondary level, government operated schools account for 56 percent of schools, government-aided and autonomous schools comprise 35 percent, and independent schools account for only 9 percent of all secondary schools. While national independent schools in Singapore exist only at the secondary level, it is not uncommon for international schools to include both primary and secondary school ages.

Private tutoring

Competition and academic rigour are key in Singaporean schools, and striving to this standard is a cultural feature. Private tutoring is common, with significant household expenses (SGD\$112 per month, on average) allocated to private tutoring and other educational courses, according to Singapore's 2017/18 Household Expenditure Survey (Department of Statistics Singapore, 2018). Channel News Asia (2021) reported that private tutoring is a SGD\$1.4 billion industry in Singapore. It's one of many educational expenses that can be covered by students' Edusave Accounts. Regionally, the popularity of private tutoring is not unique. In China, private tutoring is such a popular service that the sector generates US\$120 billion, according to the Asia-Pacific news magazine the *Diplomat* (Albert, 2021), and the Chinese government has recently imposed government limits on private tutoring, reportedly to diminish student inequality and improve children's mental health.

Independent school and home-school regulations

Independent schools are permitted and guaranteed in the constitution, including those of religious affiliation. "Every religious group has the right to establish and maintain institutions for the education of children and provide therein instruction in its own religion" (OIDEL, 2016: 264-265). While expatriate families have significantly more flexibility in choosing schools, Singaporean citizens can apply to the Ministry of Education (no date [4]) to be exempt from compulsory education if they choose to home-school or send their children to one of five designated religious schools, each of which is independently owned and operated.

Independent schools in Singapore can be divided into a few basic categories: independent day schools (there are eight) and specialized independent day schools (there are four), which control their own programming but are regulated by the government; designated schools, which are exempt from compulsory education; international schools, attended primarily by expatriates; and finally, private tutoring centres, which are not day schools but are considered private educational institutions (PEIs) in Singapore and are heavily utilized.

All PEIs—which includes day schools and tutoring centres—must register using the government's Enhanced Registration Framework, which mandates that PEIs keep financial records; establish an academic board and an examination board with at least three members each to oversee these areas; hire qualified teachers; and seek approval by the Committee for Private Education (CPE), which falls under a Singaporean government agency called SkillsFuture Singapore, before offering any courses (Training Partners Gateway, no date [1]). Further, all PEIs must transparently display their course offerings, teachers, fee structures and refund policies. If PEIs do not comply, the CPE can revoke their registration.

PEIs, including international schools, at the primary, secondary and post-secondary levels are encouraged to become certified through a voluntary certification scheme called EduTrust, managed by the CPE. While technically voluntary, this certification is mandatory if schools wish to enrol international students (SSTC Institute, no date). Further, all PEIs in

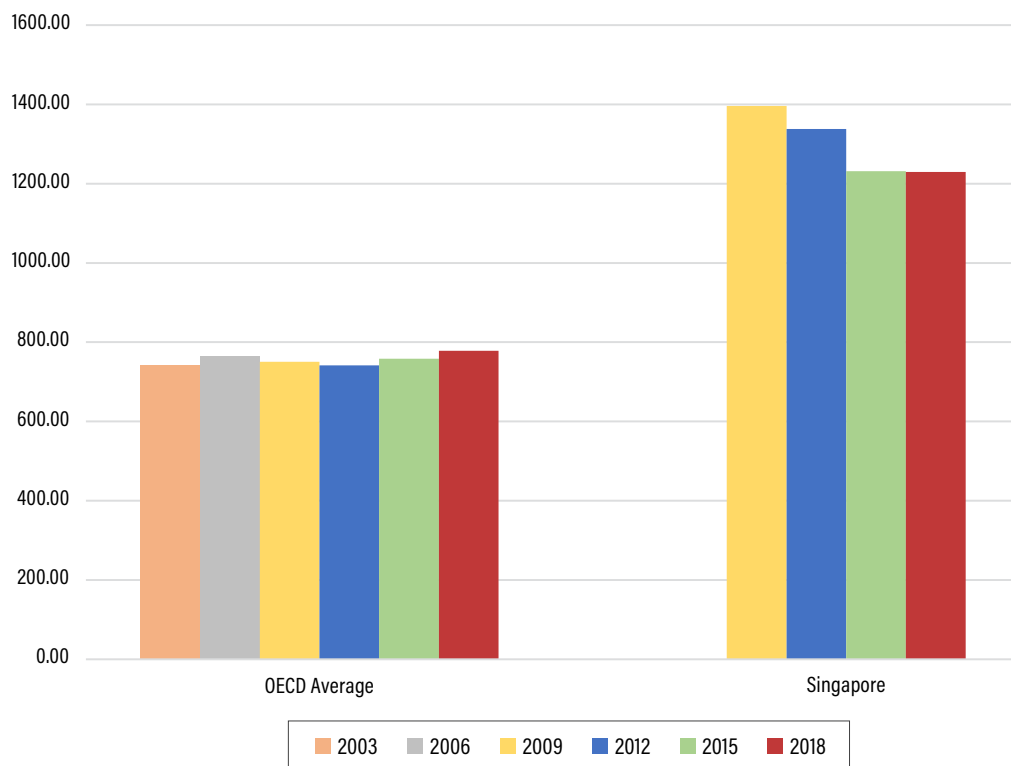
Singapore are required to register under the Enhanced Registration Framework, overseen by the national government. These regulations require that quality benchmarks are met, and they oversee registration, corporate governance, and information transparency.

According to the Homeschool Legal Defense Association (2019), students who are home-schooled are required to meet national standards, and to demonstrate that their curriculum satisfies knowledge-based objectives and education promoting national identity. The Ministry of Education (no date [6]) determines these standards, based on learning plans that parents must submit for English, mother tongue language, math, science, and character development and citizenship. In addition, home-schooled students must take national student exams. Home-schooling parents are also required to possess teaching qualifications, as determined case-by-case by the MOE. Importantly, non-citizens are not required to abide by these rules and are freer to choose their child's educational path when living in Singapore.

Large class sizes

While small class sizes might be nice to have, Singapore's government schools are a case study against the necessity. Class sizes in Singapore exceed the OECD average—high school classes house eight more students, on average, than those in Canada (Allison,

Figure 4.1: Average School Size, by Total Enrollment Per School, 2003-2018



Source: OECD (2019a).

2019). According to the Ministry of Education (2021), in 2020 the average class sizes in primary and secondary schools were 32.1 students and 33.1 students, respectively. The government notes, however, that for speciality programming the classes are broken down into smaller groups. Compare this with the average across OECD countries: 15 students per teacher at the primary level and 13 students per teacher at the secondary level (OECD, 2021). While small class sizes are often a factor influencing parents' decisions in choosing a school, the OECD's Equity and Quality in Education Report (2012) research shows smaller class sizes do not make a difference in students' cognitive development, nor do they increase the amount of time with the teacher (per student) or mean teachers will adopt better learning strategies.

Programme for International Student Assessment (PISA) data in figure 4.1 show that in all sampled schools in 2009, 2012, 2015 and 2018, the years of available data, Singapore's schools far exceed the OECD average in size. This figure represents the number of boys and girls enrolled in each school.

Meritocracy and competition

Academic excellence is strongly emphasized in Singapore and the system supports Singapore's culture of meritocracy for students, teachers and schools in numerous ways. Students are streamed into schools based on competency; scholarships and bursaries are awarded based on merit; and student assessment is a key component of the system. Teachers and schools, too, are evaluated routinely, and awarded monetarily for exceptional results. Choon-yin (2017) notes that the meritocracy system in education and recruitment in public service, has been credited as a key explanation for Singapore's success in its first 50 years as a nation. Singapore's education system has received criticism for relying too much on "teaching to the test," intense homework requirements, and lacking emphasis on creativity and critical thinking. Singapore recently began incorporating a focus on creativity and student well-being into its curricula. Morality, unity and patriotism are benchmarks at every level of schooling. Academic excellence is a cultural goal, as evidenced by the booming private tutoring industry.

Student streaming

Singapore's education system employs streaming, beginning with the Primary School Leaving Examination (PSLE) administered at the end of primary school year 6, which assesses students on English, their mother language, math, and science. This national test, administered since the 1960s, determines students' eligibility for secondary school and the stream they will enter: academic (typical), technical, or express (enriched) streams. Leading up to 2024, policy makers in Singapore are piloting subject-based streaming in primary schools (for example, a student could take enriched math and academic English, as opposed to one stream for all subjects). This is a softening of the streaming process.

Evaluation of students, teachers, and schools

Students

Student evaluation is a consistent practice, though the frequency of student exams in lower years of school has been reduced. Teachers perform routine in-class assessments; all primary students take the PSLE—administered by the arms-length Singapore Examinations and Assessment Board (2022)—to determine their secondary-school stream. Secondary students routinely take subject-based exams and after four years take stream-specific General Certificate of Education (GCE) exams, prior to post-secondary education. Student marks are used to grant various financial awards via the Edusave Program, detailed below, making routine exams more meaningful.

Teachers

Teachers in government schools are evaluated twice yearly using the country's performance management system for teachers (Ministry of Education (no date [7])). Monetary performance bonuses are rewarded to high-achieving teachers, and strong performance allows teachers to pursue higher-level career tracks. The evaluation covers a range of competencies, including subject expertise.

Schools

Schools are ranked publicly, by exam results, which are published in newspapers, and schools are financially rewarded for performing well (Menon, 2000). According to the NCEE (2021), Singaporean government schools are required to conduct self-evaluations under the Ministry of Education's School Excellence Model, with specific performance criteria. External inspection teams evaluate every school on a five-year basis, then offer feedback for improvement. School superintendents are designated by so-called clusters, and meet with school principals regularly to oversee and provide feedback. Awards are given to schools seen to be doing well, with one top school awarded each year.

Teacher quality

Hiring high-quality teachers is a priority in Singapore; teachers are compensated generously and held accountable throughout their careers. To pursue post-secondary education to become a teacher in Singapore, students must have grades in the top one-third of secondary students in their class. The Ministry of Education (no date [7]) states that the salaries of Singapore's teachers must be the same across all government school levels and depend only on a teacher's academic training. As noted, however, monetary performance bonuses are awarded to teachers who stand out, so a portion of teachers' compensation earned is based on merit. Uniquely, Singapore fully funds teachers' university education and pays teaching students a salary while they are in school (Lee and Tan, 2010). Teachers in Singapore undergo continuous professional development through the Academy of Singapore Teachers (no date, under the Ministry of Education).

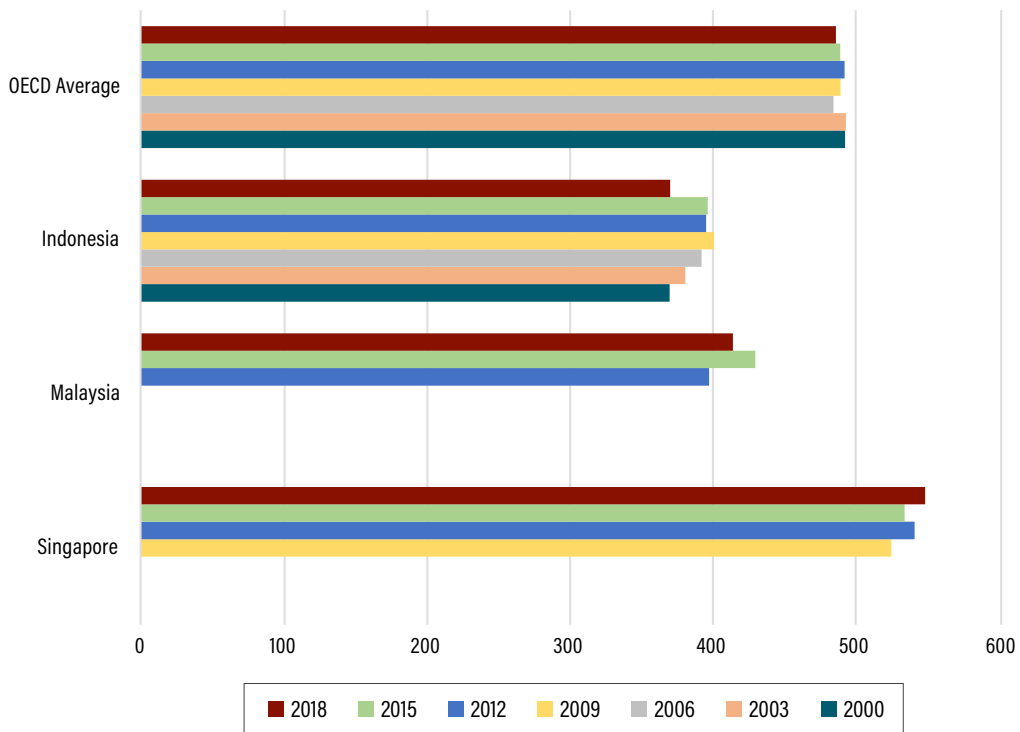
Student achievement

Singapore is a world leader in student achievement, with consistent high scores on international student tests. An OECD snapshot of Singapore's performance on the PISA 2018 assessment of 15-year-olds showed that Singaporean students exceeded the OECD average in reading, math and science. As well, compared with the OECD average, a larger share of Singaporean students performed at the top levels of proficiency in at least one subject, and a larger share of students achieved a minimum level of proficiency in at least one subject. PISA trends showed mean reading scores in Singapore improved significantly between 2009 and 2018, mean science scores improved over this period as well, and mean math scores were maintained at a consistently high level (OECD, 2019c). Singapore was exceeded only by a non-representative sample of higher performing students in China in the 2018 PISA scores and was nudged from the top spot in the previous 2015 assessment.

As shown in figures 4.2 through 4.4, in the years for which data are available, Singapore students (all schools—government and independent) consistently exceeded the OECD average in PISA reading, mathematics and science scores from 2009 to 2018.

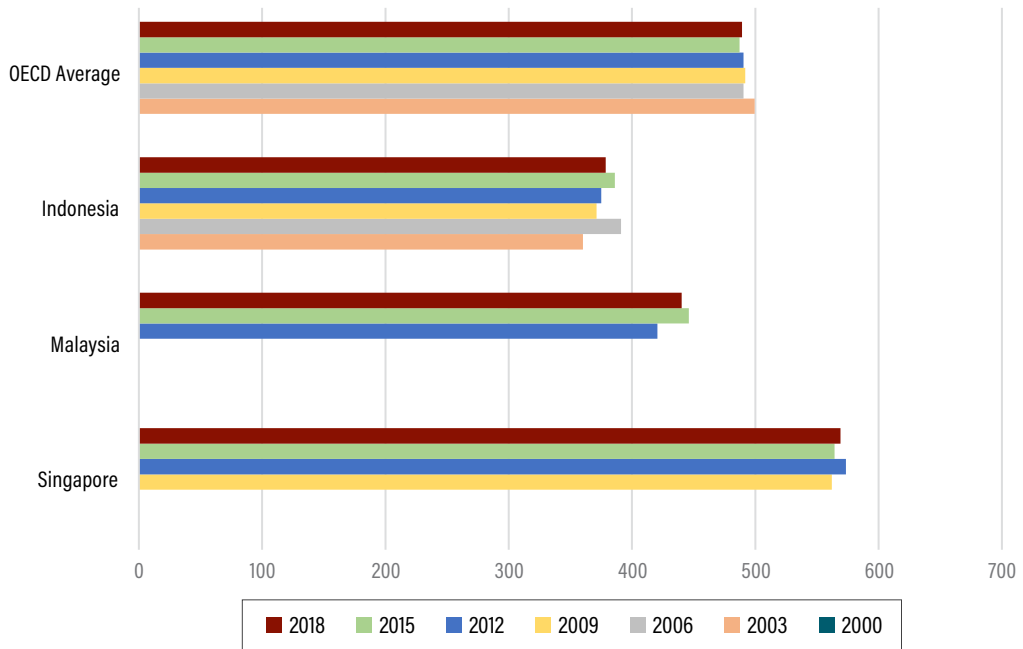
It may provide context to compare Singapore with neighbouring Malaysia and Indonesia. Singapore outperforms both Indonesia and Malaysia by a wide margin in PISA reading, math, and science scores, leading these other countries by over 100 points each year (figures 4.2, 4.3, and 4.4).

Figure 4.2: PISA 15-year-old Reading Results—All Schools, 2000–2018



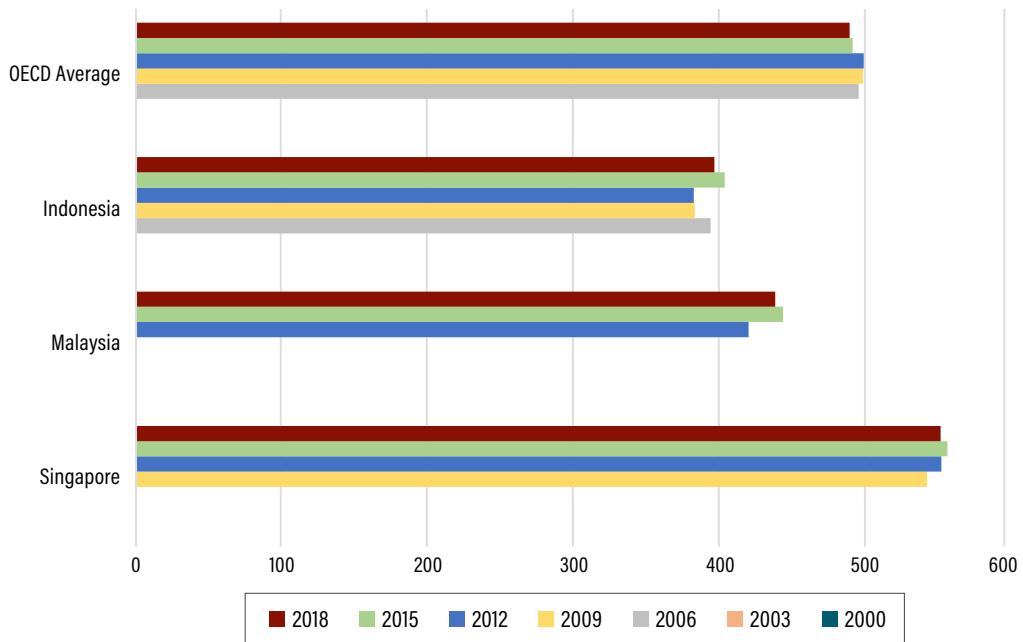
Source: OECD (2019c).

Figure 4.3: Pisa 15-year-old Math Results—All Schools, 2000–2018



Source: OECD (2019c).

Figure 4.4: Pisa Science Results—All Primary and Secondary Schools, 2000–2018

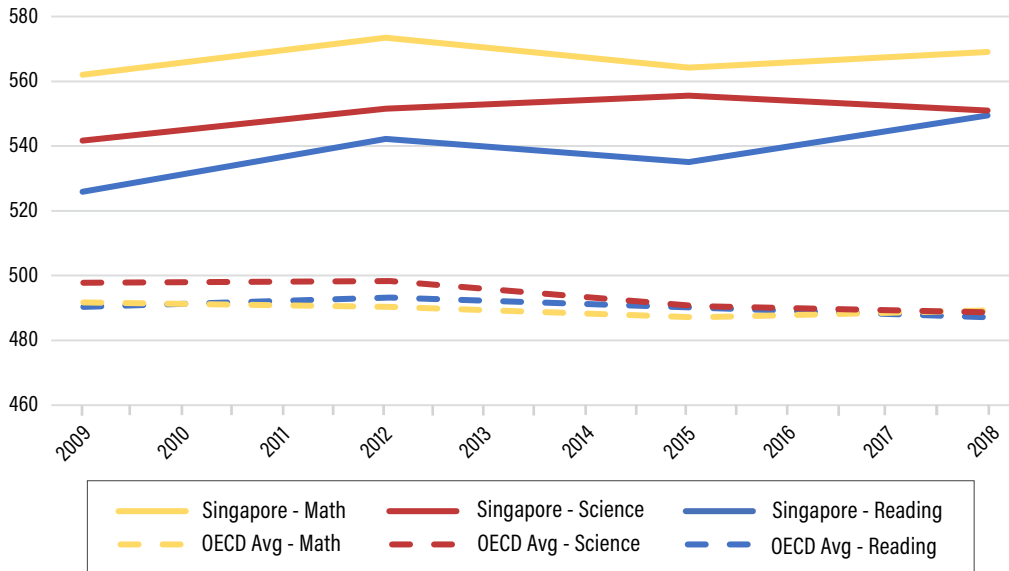


Source: OECD (2019c).

When broken down by school type, Singaporean schools still outperform the OECD averages in PISA reading, math and science scores.

Figure 4.5 displays Singapore's PISA results in reading, math and science in a different way, over time between 2009 and 2018, compared with the OECD averages. As is illustrated, not only did Singapore outperform the OECD averages in these core subjects; Singapore students also demonstrated clear improvement over time, while the OECD averages declined.

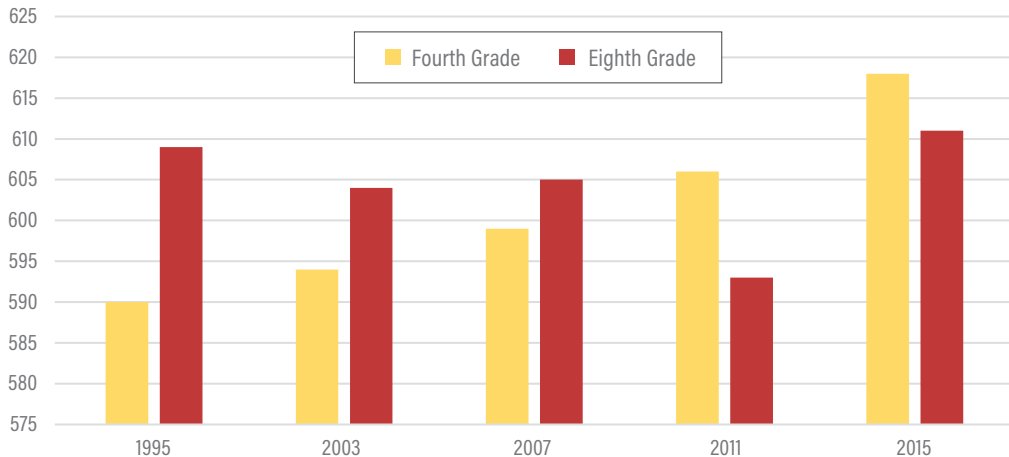
Figure 4.5: PISA Student Results—All Schools, 1995-2015



Source: OECD (2019c).

Other external assessments show improvement in student achievement in Singapore. As shown in Figure 4.6, beginning in the mid-1990s, Singapore's student scores on the Trends in International Mathematics and Science Study (TIMSS) grade four and grade eight exams began to show improvement.

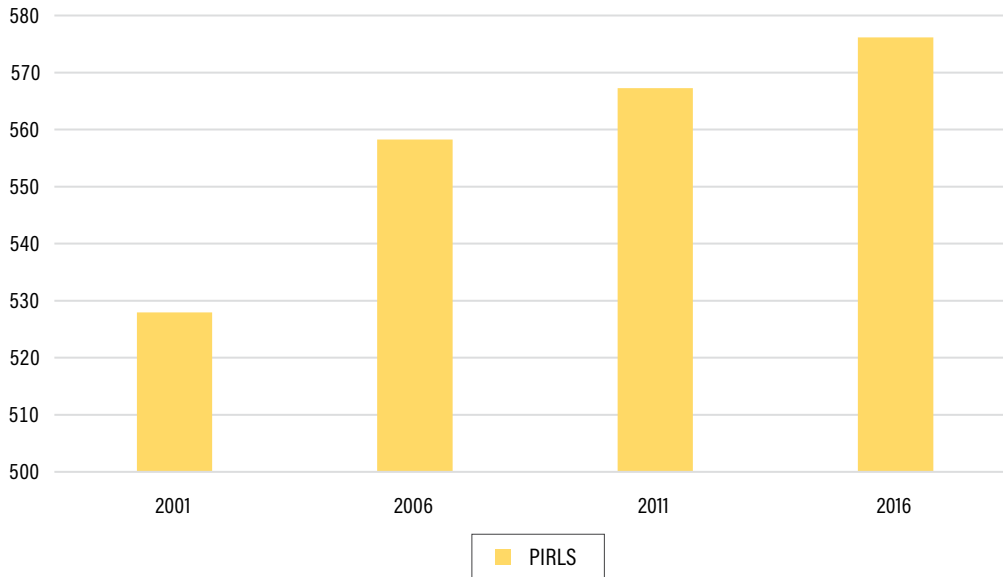
Figure 4.6: Singapore, TIMSS Results, 1995-2015



Source: Trends in International Mathematics and Science Study (TIMSS and PIRLS International Study Center, 2015).

Singapore’s performance on the Progress in International Reading and Literacy Study (PIRLS) assessments improved every year from 2001 to 2016, illustrated in Figure 4.7.

Figure 4.7: Singapore, PIRLS Results, 2001-2016



Source: Progress in International Reading and Literacy Study (TIMSS and PIRLS International Study Center, 2015).

The NCEE (2021) notes that Singapore boasts a high percentage of high-performing students and a low percentage of poorly performing students on the PISA tests, though there is a wide gap between the highest and lowest performing students. In recent years, however, this gap is narrowing.

Singapore’s success is no secret, and some across the world have come to borrow its techniques. Singapore’s math curriculum is popular amongst home-schooling families in North America (Singapore Math, 2023) and is employed by some alternative independent and charter schools, such as Calgary Classical Academy (2022) in Alberta.

Education spending and the role of savings accounts

Expenditure on primary and secondary schools

Despite the government fully funding government primary and secondary school in Singapore, save for a few small fees (detailed below), the country’s education spending is comparatively low relative to the size of Singapore’s economy. According to the World Bank (2021b), Singapore’s total government expenditure on education as a percentage of GDP was 2.8 percent. For context, the global average (2020) was 4.3 percent, neighbouring Malaysia (2020) spent 3.9 percent, and Canada—including all sources of educational funding: federal transfers, provinces, private sources (in 2020)—spent 5.2 percent of GDP. It’s critical to note that Singapore’s GDP is roughly double Canada’s, making per-person education spending

comparable in these two countries. According to a Fraser Institute (2022) analysis, per-student operational spending by government on K-12 public schools in Canada in 2019/20 was CAD\$12,560. A weighted average of the per-student operational spending by government on primary and secondary schools in Singapore in 2020, converted to Canadian dollars,¹ reveals similar per-student spending: \$12,848 (Ministry of Finance, 2022: 27).

Primary and secondary government schools in Singapore are funded per student, with schools receiving additional grants targeted to lower-income students. Independent schools receive annual per-capita grants based on government schools' costs, in addition to funding for capital, but they receive less funding than government-aided schools. Independent schools require tuition payments and are permitted to fundraise.

Some independent schools, such as the five designated religious schools, are not funded by the government, but students at these schools can still access government Edusave Savings Accounts. Edusave Accounts are funded by taxpayers, not directly by parents. Low-income families also receive direct subsidies from the government, called Financial Assistance Schemes, for educational activities, materials and meals, and the government supports the Education Fund to provide further support (NCEE, 2021).

School fees

The school fees required of Singaporean citizens are considerably lower than those for permanent residents and international students. For context, Singaporean citizens pay up to SGD\$13 per month for government primary schools; permanent residents pay around SGD\$250 per month; and international students pay up to SGD\$888 per month. According to the Ministry of Education (no date [3]), these fees are on the lower end for international students from countries in Association of Southeast Asian Nations (ASEAN) countries. Attending autonomous government schools necessitates paying additional fees ranging from SGD\$3 to \$18 per month. PEI fees (set by the schools or tutoring centres) range from SGD\$300 to \$600 per month for Singaporean citizens and up to SGD\$2,500 per month for international students.

Edusave Accounts

Singapore's education savings accounts for youth help parents support their children's educational enrichment while incentivizing students' success. Parents cannot directly contribute to Edusave Accounts—they are established by the government for each student and funded by the Ministry of Education for student use. Parents withdraw these funds and decide how to use them, within parameters set out by the government. In some cases, PEIs can withdraw students' funds following government and parents' approval. In essence, the government sets aside a portion of parents' tax dollars—indirectly for families to spend on educational expenses.

The Edusave Program also facilitates a merit-based scholarship and bursary program for high-achieving students in a variety of areas and is used for targeted support to

low-income students, through bursaries. According to the Ministry of Education (no date [8]), the base amount that students in primary school received in 2022/23 was SGD\$230, and secondary students received SGD\$290. Loke and Sherraden (2007) describe the Edusave Accounts as part of a cradle-to-grave asset-building scheme for Singaporean children, including the Child Development Account, Post-Secondary Education Account, and the Central Provident Fund, all of which are detailed in Appendix A.

Edusave Accounts, by design, advance Singapore's broader cultural goals of meritocracy and competition in primary and secondary schools, and help form the building blocks of Singapore's system of forced savings.

Parental choice

Edusave Accounts are used in Singapore to support primary and secondary student success and relieve parents of some educational costs. These accounts give parents autonomy over how they spend this money to support their children's learning. Singaporean citizens enrolled in government-funded schools (including government and government-aided primary, secondary, junior colleges, Millennia Institute, independent secondary and junior colleges, specialized independent schools, and specialized/special-education schools) receive annual contributions. The government allows these funds to be used for miscellaneous fees, school-organized enrichment programs, and personal-learning devices at school.

Students in non-government-funded independent schools, including religious schools, can withdraw from their Edusave Accounts for enrichment programs, programs organized by their schools (or for home-schoolers by their parents), curriculum-related programs, social-emotional learning, field trips, subscription fees for educational materials, and registration fees for academic competitions. Children who are not formally registered with an educational institution can still withdraw their Edusave Account funds. Students receive contributions to their Edusave Accounts from ages seven to 16 (Ministry of Education, no date [9]).

Meritocracy and competition

Meritocracy is built in to the Edusave Accounts, which have four tiers:

1. funds for all Singaporean children in all school types;
2. additional government supports for technical education;
3. additional scholarships for high-achieving students;
4. and grants given to lower-income students.

The government's Edusave Program includes merit-based scholarships and awards to help families pay for education, incentivizing student achievement. According to the Ministry of Education (no date [10]), these include Edusave academic awards spanning primary and secondary school such as the Edusave Scholarship for students in the top 10 percent

of their class in government, government-aided independent, and specialized schools; financial awards for good character and leadership; Merit Bursaries for lower-income students who have demonstrated good conduct and positive learning (in primary grades 1 and 2) and are in the top 10 percent or 25 percent of their class throughout primary and secondary school; and Good Progress Awards for students in primary and secondary school who show academic improvement.

Citizens attending independent school are eligible for merit-based scholarships of up to SGD\$2,400 per year in secondary school 1 (if they are in the top one-third of student performers in the PSLE), secondary school, and pre-university, based on examination results. Yearly merit-based scholarships under the Edusave Program for independent school students are also awarded for students in the top 10 percent of their cohort (Ministry of Education, no date [11]).

Building blocks of Singapore's forced savings programs

Edusave funds can be used to pay for expenses incurred at junior colleges and the Millennia Institute (pre-university academic programs). Singapore's Edusave Accounts are funded by the government to advance social goals, but the money is given to individuals to manage. Individuals do not and cannot contribute to Edusave Accounts directly. However, unused Edusave Account funds are rolled into other savings accounts established by the government. Edusave Accounts help form the building blocks for Singapore's broader system of forced savings accounts, which are detailed briefly in Appendix A.

Savings accounts used to fund something the government views as a desirable social goal (e.g., enriching students' education through tutoring) may provide a more efficient policy tool compared to delivering social programs directly through government. They allow individuals to be aware of the actual cost of each service before purchasing it, which may promote fiscal prudence and facilitate some individual budgeting awareness.

However, Singapore's national government is heavily involved in the education system, and most citizens attend government primary and secondary schools. Forced savings accounts have not kept Singapore's government education programs lean. Yet Singaporeans are able to choose their own desired educational expenditures. Educational enrichment is both desirable to government and culturally popular, and the private tutoring industry appears to meet this need. The government regulates but does not provide this service, yet it creates access for Singaporeans of varying income levels by allowing them to use Edusave Accounts to fund it. Further, the government promotes educational achievement by allotting extra funds to high-achieving students.

Edusave Accounts could be expanded to achieve similar efficiency and advance social goals such as educational diversity in other areas of the education system. For example, allowing Edusave Accounts to fund independent school tuition could help expand the independent school sector for Singaporean citizens.

Conclusion

Singapore's rapid growth from developing country with high unemployment and illiteracy to advanced service economy with world-leading student performance has drawn international attention. Singapore is small, and its centralized education system has a high degree of government involvement and funding. Yet Singapore's total government expenditure on education as a percentage of GDP is below the global average and far below Canada's. With more than twice the per-capita GDP that Canada has, Singapore's per-person spending on education by this measure is comparable to Canada's. It has done this while ensuring academic rigour, and with large class sizes, student streaming, and routine evaluation of students, teachers and schools. Importantly, it employs rewards for strong performance in a number of areas. In this way Singapore has propelled itself to the top of international student assessments in reading, math and science, in most cases showing improvement year after year. Singapore's Edusave Accounts support the country's education system by rewarding students for high achievement, complementing Singapore's meritocratic culture. Edusave Accounts allow parents some choice in financing school costs, and they help lift disadvantaged students. Singapore's Edusave Accounts are an example for other countries as to how targeted education subsidies can be structured to support children's educational enrichment, without delivering these programs directly through government. At the same time they are incentivizing students to achieve their academic potential.

Appendix: Post-secondary education and beyond—forced savings accounts

Though this backgrounder paper focuses on primary and secondary education in Singapore, it's worth noting that forced savings accounts play a significant role in the funding of post-secondary education in Singapore. Any unused funds in children's Edusave Accounts by age 16 are rolled into a different government savings program called the Post-Secondary Education Account (PSEA), also operated by the Ministry of Education. Students earn interest on the money in this account until they turn 31 years old. Additionally, unused funds from Singaporean children's Child Development Accounts (essentially, baby bonus funds provided from birth to age six) can also be redirected to the PSEA (Ministry of Social and Family Development, no date).² PSEAs can be used to pay for post-secondary expenses at a government-approved list of institutions, both government and independent, including tuition, fees and enrichment programs. Families can contribute to PSEAs until their child reaches the age of 18, and interest is earned on these contributions. Any unused funds in students' PSEA are then transferred to the Central Provident Fund account, or they can be transferred to a sibling's PSEA.

The Central Provident Fund, Singapore's compulsory savings and pension fund for Singaporean citizens, offers residents the option to withdraw funds to be spent on tuition for post-secondary education at approved institutions. Broadly, this includes full-time subsidized courses at polytechnics and universities. These funds are withdrawn from

the CPF's Ordinary Account under the CPF Education Loan Scheme. The amount is capped and students are expected to fully repay the CPF fund—which is intended to be used for retirement—upon graduation. The employment-based fund, managed by the arms-length Central Provident Fund Board, can be withdrawn for several purposes beyond post-secondary education (Central Provident Fund Board, no date).

Notes

- 1 Conversion rate on April 9, 2023.
- 2 The Child Development Account is composed of a cash grant from the national government, and matched funds from the government for any savings contributions made by parents. The funds, originally meant to boost fertility rates, can be spent on government-approved uses related to child care and associated areas.

References for Chapter 4

Academy of Singapore Teachers (no date). Ministry of Education. *About AST*. Government of Singapore. <<https://academyofsingaporeteachers.moe.edu.sg/about-us>> as of November 25, 2023.

Albert, Eleanor (2021, July 29). China Targets the Private Tutoring Sector. *Diplomat*. <<https://thediplomat.com/2021/07/china-targets-the-private-tutoring-sector/#:~:text=Parents%20invest%20heavily%20in%20their,be%20valued%20around%20%24120%20billion>> as of November 22, 2023.

Allison, Derek (2019). *Study Exposes “Class Size” Myth in Canada*. Fraser Institute. <<https://www.fraserinstitute.org/article/study-exposes-class-size-myth-in-canada>> as of November 22, 2023.

Calgary Classical Academy (2022). *Parent Information: Essential Information About Calgary Classical Academy*. <<https://www.calgaryclassicalacademy.ca/parent-information>> as of November 25, 2023.

Central Provident Fund Board (no date). *CPF Education Loan Scheme*. Government of Singapore. <<https://www.cpf.gov.sg/member/faq/other-schemes/cpf-education-loan-scheme>> as of November 22, 2023.

Chan, David, and Tan, Jason (2008). Privatization and the Rise of Direct Subsidy Scheme Schools and Independent Schools in Hong Kong and Singapore. *International Journal of Educational Management*, 22, 6: 467–487. <<https://repository.nie.edu.sg/bitstream/10497/3548/3/IJEM-22-6-464.pdf>> as of November 22, 2023.

Choon-yin, Sam (2017). *Private Education in Singapore: Contemporary Issues and Challenges*. World Scientific Publishing Company. Kindle Edition. <https://www.amazon.ca/Private-Education-Singapore-Contemporary-Challenges/dp/9813225815/ref=tmm_hrd_swatch_0?_encoding=UTF8&qid=&sr=> as of November 22, 2023.

Compulsory Education Act. 2000. Current version as at 27 Nov 2023. Government of Singapore. <<https://sso.agc.gov.sg/Act/CEA2000>> as of November 26, 2023.

- Compulsory Education (Exemption) Order. Current version as at 27 Nov 2023. Chapter 51, Section 4(1). Government of Singapore. <<https://sso.agc.gov.sg/SL/CEA2000-OR1?DocDate=20180404>>, as of November 26, 2023.
- Department of Statistics, Ministry of Trade and Industry (2018). Government of Singapore. *Report on the Household Expenditure Survey 2017/2018*. Government of Singapore. <<https://www.singstat.gov.sg/-/media/files/publications/households/hes201718.ashx>>, as of November 25, 2023.
- Homeschool Legal Defense Association (October 2019). *Compulsory Attendance Ages*. <<https://hsllda.org/post/singapore>>, as of November 22, 2023.
- International Schools Database (no date). *Find the Best International School in Singapore*. <<https://www.international-schools-database.com/in/singapore?filter=on>>, as of November 22, 2023.
- InterNations (no date). *A Guide to Education & International Schools in Singapore*. <<https://www.internations.org/singapore-expats/guide/education>>, as of November 22, 2023.
- Lee, Christine Kim-Eng, and Tan, Ying Mei (2010, February). *Rating Teachers and Rewarding Teacher Performance: The Context of Singapore*. Paper presented at APEC Conference on Replicating Exemplary Practices in Mathematics Education, Koh Samui, Thailand, March 7-12, 2010. <<https://www.apec.org/docs/default-source/Publications/2010/7/Replicating-Exemplary-Practices-in-Mathematics-Education-among-APEC-Economies-July-2010/TOC/Christine-Lee-Kim-Eng-and-Mei-Ying-Tan-Rating-Teachers-And-Rewarding-Teacher-Performance-The-Context.pdf>>, as of November 22, 2023.
- Loke, Vernon, and Sherraden, Michael (2007, June). Building Children's Assets in Singapore: The Post-Secondary Education Account Policy. Policy Brief 07-36. *Center for Social Development, George Warren Brown School of Social Work*. St Louis: Washington University. <https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=1695&context=csd_research>, as of November 22, 2023.
- Menon, Ramakrishnan (2000). On My Mind: Should the United States Emulate Singapore's Education System to Achieve Singapore's Success in the TIMSS? *Mathematics Teaching in the Middle School*, 5, 6 (February): 345–347. <<http://www.jstor.org/stable/41180828>>, as of November 22, 2023.
- Ministry of Education (2021). *Education Statistics Digest 2021*, 4. Enrolment, Number of Classes and Class by Level. Government of Singapore. <<https://www.moe.gov.sg/-/media/files/about-us/education-statistics-digest-2021.pdf>>, as of November 25, 2023.
- Ministry of Education (no date, [1]). *Private Education*. Government of Singapore. <<https://www.moe.gov.sg/private-education>>, as of November 22, 2023.
- Ministry of Education (no date, [2]). *Private Education. Overview of Compulsory Education*. <<https://www.moe.gov.sg/primary/compulsory-education/overview>>, as of November 22, 2023.

- Ministry of Education (no date, [3]). *Private Education. List of Private Schools*. Government of Singapore. <<https://www.moe.gov.sg/private-education/private-schools/>>, as of November 22, 2023.
- Ministry of Education (no date, [4]). *Private Education. Types of Schools*. Government of Singapore. <<https://www.moe.gov.sg/education-in-sg/our-schools/types-of-schools>>, as of November 22, 2023.
- Ministry of Education (no date, [5]). *Private Education. Exemption from Compulsory Education*. Government of Singapore. <<https://www.moe.gov.sg/primary/compulsory-education/exemptions#:~:text=To%20home%2Dschool%20your%20child,-for%20Character%20and%20Citizenship%20Education>>, as of November 22, 2023.
- Ministry of Education (no date, [6]). *Private Education. Homeschooled children*. Government of Singapore. <<https://www.moe.gov.sg/news/parliamentary-replies/20200218-homeschooled-children>>, as of November 22, 2023.
- Ministry of Education (no date, [7]). *Private Education. Diploma in Education (DipEd). 1. Overview*. Government of Singapore. <<https://www.moe.gov.sg/careers/become-teachers/pri-sec-jc-ci/diploma-education>>, as of March 22, 2022.
- Ministry of Education (no date, [8]). *Private Education. Edusave Account: Overview*. Government of Singapore. <<https://www.moe.gov.sg/financial-matters/edusave-account/overview>>, as of November 22, 2023.
- Ministry of Education (no date, [9]). *Private Education. Edusave Account: Usage of Funds*. Government of Singapore. <<https://www.moe.gov.sg/financial-matters/edusave-account/usage-of-edusave-funds>> as of November 22, 2023.
- Ministry of Education (no date, [10]). *Private Education. Edusave Awards and Scholarships*. Government of Singapore. <<https://www.moe.gov.sg/financial-matters/awards-scholarships/edusave-awards>>, as of November 22, 2023.
- Ministry of Education (no date, [11]). *Private Education. Edusave Scholarships for Independent Schools (ESIS)*. Government of Singapore. <<https://www.moe.gov.sg/financial-matters/awards-scholarships/edusave-scholarships-independent#:~:text=These%20scholarships%20are%20offered%20to,Only%20Singapore%20Citizens%20are%20eligible.&text=Awarded%20to%20the%20top%20one,independent%20schools%20by%20PSLE%20score.>>, as of November 25, 2023.
- Ministry of Finance (2022). *Revenue and Expenditure Estimates for Financial Year 2022/23*. Education Key Performance Indicators, 127. Government of Singapore. <<https://www.mof.gov.sg/docs/librariesprovider3/budget2022/download/pdf/revenue-and-expenditure-estimates-for-fy2022-fy2023.pdf>>, as of November 22, 2023.
- Ministry of Social and Family Development (no date). *Private Education. Baby Bonus Scheme*. Government of Singapore. <<https://www.msf.gov.sg/policies/Strong-and-Stable-Families/Supporting-Families/Pages/Baby-Bonus-Scheme.aspx>> as of November 25, 2023.

- National Center on Education and the Economy [NCEE] (2021). *Top Performing Countries: Singapore*. <<https://ncee.org/country/singapore/>>, as of November 22, 2023.
- National Library of Singapore (2009). *Singapore's Education System—History*. <<https://web.archive.org/web/20131002211750/http://libguides.nl.sg/content.php?pid=57257&sid=451404>>, as of November 22, 2023.
- OIDEL (2016). Freedom of Education Index: Worldwide Report 2016 on Freedom of Education, 264-265. OIDEL and the Novae Terrae Foundation. <https://www.oidel.org/wordpress/wp-content/uploads/2016/02/FEI_complet2.pdf>, as of November 22, 2023.
- Organisation for Economic Cooperation and Development [OECD] (2012, February 9). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. <<https://doi.org/10.1787/9789264130852-en>>, as of November 22, 2023.
- Organisation for Economic Cooperation and Development (2019b). *Programme for International Student Assessment (PISA) Results from PISA 2018: Singapore*. <https://www.oecd.org/pisa/publications/PISA2018_CN_SGP.pdf>, as of November 22, 2023.
- Organisation for Economic Co-Operation and Development [OECD] (2019c). How did countries perform in PISA 2018? *PISA 2018 Results (Volume I): What Students Know and Can Do*. OECD. <<https://www.oecd-ilibrary.org/docserver/28450521-en.pdf?expires=1666531667&id=id&accname=guest&checksum=2B8A837B5D-720626BE2C8F22E7466C4C>>, as of November 22, 2023.
- Organisation for Economic Co-operation and Development [OECD] (2019a). *PISA 2018 Technical Report*. OECD. <<https://www.oecd.org/pisa/data/pisa2018technical-report/>>, as of November 22, 2023.
- Organisation for Economic Co-Operation and Development [OECD] (2020). *Education at a Glance 2020: OECD Indicators*. OECD. <<https://doi.org/10.1787/19991487>>, as of November 26, 2023.
- Singapore Examinations and Assessment Board (2022). *PSLE: Examinations* <<https://www.seab.gov.sg/home/examinations/psle>>, as of November 22, 2023.
- Singapore Math (2023). *Our Story*. <<https://www.singaporemath.com/pages/our-story>>, as of November 22, 2023.
- SSTC Institute (no date). *EduTrust Certification Scheme*. <<https://www.sstc.edu.sg/student-info/edustrust-certification-scheme/>> as of November 22, 2023.
- TIMSS & PIRLS International Study Center (2015). International Association for the Evaluation of Educational Achievement (IEA). *2015 Assessment Frameworks*. Ina V.S. Mullis and Michael O. Martin (eds.), Lynch School of Education, Boston College. <https://timssandpirls.bc.edu/timss2015/downloads/T15_Frameworks_Full_Book.pdf>, as of November 22, 2023.
- Ting, Wong Pei (August 16, 2021). The Big Read: Singapore's Love Affair with Private Tuition Just Got Deeper With COVID-19. *Channel News Asia*.

Training Partners Gateway (1) (no date). About Enhanced Registration Framework. <[https://www.tpgateway.gov.sg/resources/information-for-private-education-institutions-\(peis\)/enhanced-registration-framework-\(erf\)/about-enhanced-registration-framework-\(erf\)](https://www.tpgateway.gov.sg/resources/information-for-private-education-institutions-(peis)/enhanced-registration-framework-(erf)/about-enhanced-registration-framework-(erf))>, as of November 22, 2023.

Training Partners Gateway (2) (no date). About EduTrust Certification Scheme. <[https://www.tpgateway.gov.sg/resources/information-for-private-education-institutions-\(peis\)/edustrust-certification-scheme/about-edustrust-certification-scheme](https://www.tpgateway.gov.sg/resources/information-for-private-education-institutions-(peis)/edustrust-certification-scheme/about-edustrust-certification-scheme)>, as of November 22, 2023.

World Bank (2020). *Literacy rate, adult total (% of people 15 and above)—Canada*. Unesco Institute for Statistics. <<https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=CA>>, as of November 22, 2023.

World Bank (2021a). *Government expenditure on education, total (% of GDP)—Singapore*. UNESCO Institute for Statistics. <<https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS?locations=SG>>, as of April 8, 2023.

World Bank (2021b). *GDP per capita, PPP (current international \$)—Canada, Singapore*. UNESCO Institute for Statistics. <<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=CA-SG>>, as of November 23, 2023.

SINGAPORE'S INCOME-SUPPORT SYSTEM: ONE OF A KIND

Jake Fuss

Introduction

The Singaporean social security system is quite different from those of most other industrialized countries, because it largely emphasizes individual responsibility rather than collective welfare. Specifically, the Central Provident Fund (CPF) is a compulsory program that requires workers and their employers to contribute a given percentage of their gross income into three different personal savings accounts (Beng, 2012). The CPF system allows for a fair degree of autonomy for citizens over how to use these funds. For instance, these accounts can be used to pay for things such as housing, education, health care, unemployment assistance, and retirement income (Tweedy, 2018).

Self-reliance and personal responsibility are the core values that Singapore's income-support system is based upon. The CPF was originally created in 1955 solely to help workers save for retirement (MOM, 2021). However, the program has expanded and evolved over time. Beginning in the 1960s and 1970s, the Singaporean government allowed residents to pay for mortgages using their CPF accounts, and it introduced the Special Account to complement retirement savings (MOM, 2021). Singaporeans were then permitted to make investments from their Ordinary Account to achieve higher returns through the CPF investment scheme (CPFIS). A third account, the Medisave Account, was established in the 1980s to use CPF funds for hospitalization expenses; the complementary MediShield insurance scheme, intended for long-term and serious illnesses, was introduced shortly thereafter (MOM, 2021).

Rising life expectancy in Singapore caused the government to place restrictions on withdrawals for retirement purposes (MOM, 2021). The Minimum Sum Scheme ensures that CPF members have sufficient funds for their entire retirement period; through monthly withdrawals they could avoid exhausting their entire savings accounts all at once.¹ In 2009, the CPF LIFE annuity was introduced as another supplementary measure to keep up with increasing life expectancies. Lower-income workers were also supported, with a new Workfare Income Supplement (WIS) to top up their retirement savings (CPF, 2021).

Contributions

Workers and their employers are required to make contributions to the employee's CPF accounts (SSA, 2018). Contribution rates differ based on the age of the contributor and whether you are an employee or employer (see Table 5.1). Singaporean workers must contribute 20 percent of their monthly gross earnings to the CPF if they are aged 55 or under, 13 percent if aged 56 to 60, 7.5 percent if aged 61 to 65, and 5 percent if older than 65 (CPF, 2021). Employee contributions are calculated using a minimum of monthly earnings of \$500 and a maximum of \$6,000 (CPF, 2021). Employers must contribute 17 percent of their monthly payroll for employees aged 55 or under, 13 percent for employees aged 56 to 60, 9 percent for employees aged 61 to 65, and 7.5 percent for employees over the age of 65 (CPF, 2021).

Table 5.1: 2020 CPF Contribution Rates, by age, 2020

Age of Worker	Contribution Rate for Employee (% of gross earnings)	Contribution Rate for Employer (% of employee's gross earnings)	Total Contribution Rate (% of employee's gross earnings)
Under 55	20.0	17.0	37.0
55 to 60	13.0	13.0	26.0
60 to 65	7.5	9.0	16.5
Over 65	5.0	7.5	12.5

Source: CPF (2021).

For example, a worker aged 50 with gross monthly earnings of \$3,000 will contribute \$600 to the CPF each month and their employer will contribute \$510 into their accounts. Put differently, the worker will have a total of \$1,110 deposited into their CPF accounts every month, which is equivalent to 37 percent of their gross earnings. In contrast, an older employee who is above 55 years old and has the same gross earnings is required to make smaller contributions.

Net contributions from each worker and their employer are split unevenly into the Ordinary, Special, and MediSave accounts. As shown in Table 5.2, the allocation rate for each account varies based on the contributor's age. Younger people must deposit the vast majority of their contributions into their Ordinary and Special accounts, because they are saving for retirement. As the person gets older, more money is generally allocated for the MediSave Account and less allocated to the other two accounts. CPF account holders under the age of 35 are required to apportion 23% of their gross earnings (employee's and employer's contributions) in the OA, 6% in the SA, and the remaining 8% in their MA (CPF, 2021). However, someone aged 60 would only allocate 3% of their gross earnings to the OA and 2.5% to the SA, while 10.5% would go to the MA (CPF, 2021).

Table 5.2: 2020 CPF Allocation Rates, by age, 2020

Age of Worker	OA Allocation Rate (% of gross earnings)	SA Allocation Rate (% of gross earnings)	MA Allocation Rate (% of gross earnings)
Under 35	23.0	6.0	8.0
35 to 45	21.0	7.0	9.0
46 to 50	19.0	8.0	10.0
51 to 55	15.0	11.5	10.5
56 to 60	12.0	3.5	10.5
61 to 65	3.5	2.5	10.5
Over 65	1.0	1.0	10.5

Source: CPFIB (2021).

Ordinary Account

The Ordinary Account (OA) can be used to buy houses, investment assets, life or mortgage insurance, and educational training. For instance, Singaporeans may use their OA to pay their own tuition fees or those of their spouse, children, or other relatives. Members can also purchase private property through their account, but must pay the money back into the CPF account when they sell it at a later date (CPFIB, 2021). Other common practices include paying life insurance premiums under the Dependents Protection Scheme (DPS) or making investments in eligible financial assets (CPFIB, 2021).

Notably, however, members can only make investments if they hold more than \$20,000 in their OA (CPFIB, 2021). Potential assets include exchange traded funds, shares, property funds, bonds, and many others. Nearly one million Singaporeans were enrolled in some form of OA investment scheme in 2020, and the total cost of current holdings has surpassed \$17 billion (CPF, 2021).

Account holders can withdraw funds before the age of 55, but only for the aforementioned purposes. Interest rates are measured quarterly, and they are generally based on the average rate of major banks in the preceding three months (CPFIB, 2021). In 2020, the OA earned a maximum of 3.5% in annual interest on the first \$20,000 deposited (CPFIB, 2021). Accumulated funds beyond that threshold earned one percentage point less, at 2.5% annually (CPFIB, 2021). At the end of 2020, the total value of all Ordinary Accounts in Singapore amounted to \$155.5 billion (CPF, 2021). This is the biggest of the three primary CPF accounts and accounts for approximately one-third of the total CPF balance in the country (CPF, 2021).

Special Account

A separate account, the Special Account (SA), is more restrictive, because its purpose is to provide retirement income to Singaporeans. Although the range of investment options

offered for this account are less abundant, the SA funds can still be invested in several lower risk products such as annuities, treasury bills, unit trusts, and government bonds (CPF, 2021). Account holders must, however, have more than \$40,000 in their SA in order to be able to invest in these products (CPF, 2021).

The Singapore government is purposefully restrictive on investments in the Special Account, to ensure citizens enjoy stable incomes at retirement by avoiding high-risk assets. This is reflected in the data, as the number of investors and value of holdings in the SA is much lower than in the Ordinary Account. In 2020, less than 300,000 people were enrolled in SA investment schemes, and the net amount withdrawn, based on current holdings, was just \$5.6 billion (CPF, 2021).

Interest rates in the SA can earn up to 5% annually if the account holder has less than \$60,000 in their CPF accounts (CPF, 2021). Otherwise, the interest rate declines by one percentage point and is equivalent to 4% per year (CPF, 2021). The combined value of every Special Account in Singapore is \$117.4 billion, which is the second largest amount among CPF accounts and represents 25.4% of all funds (CPF, 2021).

MediSave Account

The MediSave Account (MA) is generally used to pay for medical and health care expenses. These items may include hospitalization costs, health care insurance premiums, child-birth and maternity care, and other health-related spending (SSA, 2018).² For instance, Singaporeans may purchase MediShield Life, which is a basic health insurance plan, by paying premiums through their MA (CPF, 2021). They can pay for additional private insurance coverage to top up their basic coverage through Integrated Shield Plans (MOH, 2022). Account holders may also use funds to pay for deductibles, co-insurance, or other outstanding hospital expenses (MOM, 2021). Medical benefits of this plan include prescription medicine, inpatient care, and outpatient treatment (BIPO, 2018). Funds can also be withdrawn to buy ElderShield or ElderShield Supplements, which are insurance plans covering severely disabled patients requiring long-term care (MOM, 2021). Disability payments typically range from \$300 to \$400 per month for a period of five to six years (CPF, 2021). Interest rates are identical to those of the Special Account, and members can earn between 4% to 5% annually, depending on their account balance (CPF, 2021). At the end of 2020, the value of all MediSave Accounts totalled \$110.1 billion (CPF, 2021). To put this in context, MAs accounted for less than one-quarter (23.8%) of all CPF balances in the country. It is the smallest of the three primary CPF accounts.

Retirement Account

When Singaporeans reach 55 years of age, the funds in the Special and Ordinary accounts are transferred to a fourth account, called the Retirement Account (RA). At this age, you may also withdraw from your CPF to pay for some retirement expenses (MOM, 2021). In 2020, account holders aged 55 or older were required to have at least \$90,500 as a basic retirement sum in their CPF savings (MOM, 2021). However, it should be noted

that there is some contention over whether the CPF payout age and the retirement age should be linked.

Estimates suggest that roughly six in 10 CPF account holders aged 55 to 70 make cash withdrawals from their RA (CPF, 2021). The median amount withdrawn is \$9,000, and the data show that there are three primary reasons why Singaporeans make such withdrawals (CPF, 2021). The most common use was to transfer the money into savings accounts at financial institutions (CPF, 2021). About 40% of account holders withdrew funds to pay for immediate household expenses or to pay off loans (CPF, 2021). Finally, one in five Singaporeans over the age of 55 spent the money on big-ticket items, including vacations or home renovations (CPF, 2021). The wide range of decision-making highlights the flexibility offered to citizens.

The CPF's retirement system is not without its critics. Recently, protestors have railed against the unaccountable and non-transparent nature of the system, the inflexibility and changing rules in the compulsory savings scheme, and the low rate of returns on CPF savings accounts (*Straits Times*, 2015).

Retirees do not begin receiving monthly payouts from their CPF savings until they turn 65. The monthly payout is provided until death in the amount of \$730 to \$790 for basic retirement (MOM, 2021). Total payouts under this scheme reached \$1.4 billion in 2020 (CPF, 2021). Account-holders are eligible for higher payouts if they invest some of their RA savings in CPF LIFE (a retirement annuity) and hold \$60,000 in their RA before receiving any payouts (MOM, 2021).

These retirees may receive enhanced payments of up to \$2,110 per month if their RA savings exceed \$264,000 at age 55 (MOM, 2021). Put differently, Singaporean pension payouts depend almost exclusively on the amount of savings in your account. Payouts through CPF LIFE totalled \$465.8 million in 2020 (CPF, 2021).

The Retirement Account earns a standard 4% in annual interest (CPF, 2021). However, the interest rate can rise by one percentage point (5%) if the account holder has a balance exceeding \$30,000 and a further percentage point (6%) if their funds exceed \$60,000 (CPF, 2021). Total balances in RAs amounted to \$79.2 billion during the last quarter of 2020 (CPF, 2021). This represents just under one in five dollars (17.1%) of all CPF balances. An analysis from Mercer ranks Singapore's pension system 7th out of 39 countries after weighing adequacy, sustainability, and integrity (Mercer, 2020).

Other income supports

Singapore's income-support system is quite light on traditional welfare benefits and unemployment protection. However, there are several programs, apart from the CPF, that provide assistance to eligible Singaporeans. ComCare is one such program, offered by the Ministry of Social and Family Development (MSF), that helps lower-income individuals and families save for medical expenses when their CPF MediSave Account does not cover their entire expense (MSF, 2021). Eligibility for this short-term assistance is

determined by your inability to work due to illness, having limited family assets and savings, and earning a household income below \$1,900 per month (MSF, 2021). Longer-term assistance is only offered to those who are permanently unable to work, are low-income seniors, and have household income below \$1,900 per month. Beneficiaries receive monthly cash payments and assistance for utilities bills and medical expenses (MSF, 2021).

The MSF offers an array of other programs as well. Disabled citizens can receive money for acquiring and replacing necessary assistive equipment (e.g., wheelchairs, hearing aids), transportation expenses, training for employment, and supporting caregivers (MSF, 2021). These programs are somewhat limited in scale, and ComCare's longer term assistance is the main source of income for those who are disabled and cannot work.

Most services in Singapore target low-income families and/or reward individuals who are employed. Child care is subsidized for all families through a Basic Subsidy, with eligibility based on the applicant's working status and type of program in which the parents are enrolling their child (EDCA, 2021). Working parents are eligible for more assistance than non-working parents.³ For instance, a working applicant can receive \$600 for infant care and \$300 for child care, whereas a non-working applicant can only receive \$150, in both cases (EDCA, 2021). Lower-income families may receive an additional subsidy if at least one parent works and their gross monthly household income is below \$12,000 or their per capita income is below \$3,000 for larger families (EDCA, 2021). These families may receive a maximum of \$710 for infant care and \$467 for child care (EDCA, 2021).

The Kindergarten Fee Assistance Scheme (KiFAS) also offers support to low- and middle-income families to ensure kindergarten programs are affordable for them (EDCA, 2021). It is means-tested and acts in a way that is similar to the additional subsidy. Another program, called the Home Ownership Plus Education (HOPE) scheme, provides education bursaries, training programs, housing and utility grants, and mentoring support to young, low-income families (MSF, 2021). Baby bonuses are payments provided to families to help with caregiving costs during the first 18 months of their child's life (MSF, 2021). Parents are eligible to receive \$8,000 per child for the first two children and \$10,000 for each subsequent child (MSF, 2021). There is no means-testing for this payment and the program operates as universal in scale.

Aside from ComCare and child benefits, the Workfare Income Supplement (WIS) is perhaps the most noteworthy income-support program. Since 2007, the WIS scheme has acted as a measure to top-up the salaries of lower-income workers and help them save for retirement (WIS, 2021). The program also encourages and incentivizes workers to attend training to pick up new career skills (Workfare, 2022). To qualify, Singaporeans must be above the age of 35, earn gross monthly income less than \$2,300, and live in a property with an annual value of less than \$13,000 (WIS, 2021). Eligibility is also determined by spousal income, age, and whether the individual is employed or self-employed. Qualified Singaporeans between the ages of 35 and 44 can receive \$1,700 if they are employed and \$1,133 if they are self-employed (WIS, 2021). For each rising age group, the amounts increase for both employed and self-employed workers. For instance, recipients over the

age of 60 can receive \$4,000 if employed and \$2,667 if self-employed (WIS, 2021). A proportion of these payments must be contributed in CPF accounts to ensure individuals enhance their retirement savings (Teo, 2015).

Strengths of Singapore's system

There are several strengths of Singapore's income-support system, due to its uniqueness and evolution over time. First, the CPF offers the ability to invest funds in private financial markets. While the Singaporean government limits the choices of assets in which citizens can invest, a high degree of flexibility is still provided to CPF members so they can invest a portion of their funds according to their own risk profile and financial literacy. This allows members to have the opportunity to grow their retirement savings beyond what they otherwise would earn, if they are willing to take on more risk to do so.

Flexibility is also provided to more risk averse individuals, who are not required to invest their CPF savings in riskier private assets and can simply stick with the default option of the CPF Board investing their funds in a secure asset like Singapore government bonds (CPF, 2021). Furthermore, the CPF system is quite flexible, as participants may withdraw, invest, and spend their funds from all three accounts as best suits their needs, albeit with limits (CPF, 2021).

According to government estimates, approximately 961,000 Singaporeans invest funds from their Ordinary Account in the CPF investment scheme, with the total holdings amounting to over \$17.1 billion (CPF, 2021). Put differently, roughly one-quarter of the four million CPF members choose to invest in riskier private assets using their own funds. Approximately 284,000 members make investments using money from their Special Accounts (CPF, 2021). The freedom granted to individuals through being able to invest their own money in assets they have chosen themselves is fairly unique to the Singaporean model. Many other developed countries, for example, Canada, do not offer this option in their publicly funded pension systems (i.e., the CPP) and the government or regulatory body invest the funds on behalf of pensioners, thus limiting their choice and flexibility.

Second, Singapore's income-support system is sustainable due to its defined-contribution (DC) design and unique funding model. The CPF is pre-funded, which insulates it from unexpected shocks such as demographic shifts or fiscal crises (CPF, 2021). Although Singapore faces an aging population like other countries, the CPF's fully funded nature has allowed the government to make marginal reforms over time rather than requiring drastic overhauls. Moreover, the CPF provides a direct link between contributions and payouts. Each account is controlled by an individual, which means individual retirement savings are not pooled in a central account or subject to outside control.

The savings required to meet retirement needs differ from person to person. Singapore's model is advantageous in this regard because it allows individuals to top up their CPF or defer the start of retirement payouts, at their discretion (CPF, 2021). The income-support system also avoids the risk of default or insolvency suffered by other pension systems

funded by taxpayers, which are currently facing funding challenges due to their aging populations. Since CPF members know their own retirement needs, they can adjust their contributions and investment strategies according to their own preferences, and they don't need to rely on the government or other taxpayers to adequately fund their retirement incomes.

Singapore's income-support system does not place a significant fiscal burden on the state. Unlike many defined-benefit systems, the CPF has a low likelihood of experiencing unfunded liabilities or shortfalls that taxpayers will have to make up for. This allows the system to be sustainable and to suit the needs of its members, even if contribution rates and payouts are modified over time due to changing preferences. The CPF LIFE scheme further enhances sustainability by ensuring members are provided with monthly payouts for as long as they live during retirement (SSA, 2018). The program is not a requirement but, once again, offers flexibility to citizens to help them suit their retirement needs.

The last strength of Singapore's income-support system is its relative success in incentivizing savings for retirement income.⁴ High saving rates are positively associated with economic growth (Najarzadeh et al., 2014) and reduce the fiscal burden of supporting pensioners. Incentives to save through the CPF are promoted by enabling individuals to own their accounts and ensuring there is at least a 1:1 ratio between contributions and payouts.

CPF schemes typically offer favourable interest rates and very secure investment options (CPFB, 2021). Requiring CPF contributions to be mandatory also means that individuals who would not normally save or invest in such amounts will now do so. In other countries, citizens are unlikely to save as much money, because they rely on publicly funded pension schemes for retirement income and face little to no incentive to increase their contributions if they know their payouts will not sufficiently change to justify it.

Weaknesses of Singapore's system

Despite the many strengths of Singapore's income-support system, the scheme also has a number of weaknesses that are well documented in the economic literature. One of the main inefficiencies is that retirement wealth is often locked in illiquid assets such as housing due to the incentive structure of the CPF. McCarthy et al. (2002) note that Singaporeans tend to be asset-rich but cash poor, because the design of government policies steers members towards using most of their Ordinary Account funds to purchase housing. As a result, most Singaporeans hold significant wealth in illiquid assets but have comparably less wealth in the form of cash.

The main implication of this asset imbalance is that there may be a sub-optimal allocation of resources in the Singaporean economy, as housing is prioritized far above retirement income, primarily due to government policies rather than individual preferences (Gill and Low, 2016). For instance, the trade-off when you spend a large amount of funds on housing is that there is less money available for your retirement. Koh (2014) finds that many CPF members had insufficient funds for retirement. The author notes that nearly

half of cumulative contributions (44 per cent) in the CPF were withdrawn to buy homes or finance mortgages, which leaves little cash savings in the CPF accounts for retirement income. Specifically, critics of the CPF system note that retirement payouts are inadequate, considering the relatively large share of wages Singaporeans are required to save (Guilford, 2015).

The over-reliance on housing assets and under-investment in retirement income causes other problems in the economy. CPF members who have withdrawn money from their accounts to invest in housing are exposed to significant risk if housing prices decline (Phang, 2007). Since retirement income is largely tied to the success of the housing market, a potential collapse in the real estate market would render Singaporean retirees both cash poor and asset poor. Put simply, the Singaporean government now faces the prospect of having to keep home prices afloat to avoid the erosion of retirement savings.

Singapore's CPF system has also faced criticism of the apparatus of control and social engineering inherent in the scheme (Tremewan, 1994). A large amount of money is provided to unaccountable quasi-government agencies such as Temasek and GIC (Ngerng, 2018). The Singapore government has also been criticized for using home ownership to gain political support from people, and for politicizing the retirement age (Tremewan, 1994). Indeed, the government is highly paternalistic and maintains a high degree of social control over all aspects of housing, education, and welfare (Tremewan, 1994). While it is a smaller government in size relative to other countries, the government still maintains a large role in the economy.

Another weakness of Singapore's system is that there does not appear to be a big difference in investment performance between members enrolled in the CPF Investment scheme and those opting for the default option of government bonds (Koh et al., 2008; Koh and Mitchell 2010). The similarities in performance may be partially explained by the sales charges, transactions fees, administration expenses, and other costs that the CPFIS levies on products, causing a lower than expected return on private investments (Koh et al., 2008). As a result, many Singaporeans may be dissuaded from investing in private funds to build their retirement wealth and choose not to take advantage of the flexibility afforded to them in the system.

The mediocre investment performance of the CPFIS raises questions about the oversight and viability of the funds. For instance, how much added benefit does the CPFIS option offer to members if they are not earning enough reward to compensate for their increased risk when choosing private investment options over the default bonds? What oversight mechanisms or rules are in place that prevent the CPFIS from performing comparably to traditional private funds that are completely outside government control? Clearly, the flexibility of allowing members to invest in private funds is an advantage in the Singaporean model, but this is offset to a great extent by the relative weakness of investment performance in the CPFIS.

A big weakness in the system is a lack of accountability to citizens. There has been limited transparency over how funds are used and invested by the government, and citizens

have little access to oversight mechanisms (Guilford, 2015). For instance, the GIC, which manages a large share of CPF money, is making high profit returns, whereas the return on CPF investments to Singaporeans is relatively low in comparison (Guilford, 2015). This leaves critics to question why there is such a large difference between the returns, and why the CPF investments perform poorly.

Finally, Singapore has faced criticism from some academics over the adequacy of its social income supports. The country is unique because it does not have a formal unemployment insurance program and offers limited government benefits aside from the options offered through the CPF. This has led to criticism that there are citizens who fall through the cracks of the welfare system, and as a result are not provided with a sufficient standard of living at retirement, or they fall through the cracks when they lose their employment status (Hemachandra, 2010; Beng, 2012). Notably, as part of the evolution of the system over time, the Singapore government has added top-up provisions to the CPF, implemented the WIS for low-income people, and offers child care subsidies.

However, government becomes more expensive if it continues to add or expand programs and thereby lose some of the unique individualistic nature of the CPF. The result is a careful trade-off between balancing the needs of less wealthy individuals and maintaining an efficient CPF system, and keeping government relatively small in scale and scope.

International comparisons

Chile

Singapore's CPF scheme often draws similarities to another income-support system, in South America: Chile. Chile has a defined-contribution pension system, which features individual pension accounts akin to those in Singapore (Tweedy, 2018). Both systems emphasize individual responsibility and either encourage or require investment in private market funds to build up retirement income. Like Singapore's system, participation in Chile's system is mandatory, but Chilean pensions are almost entirely managed by private funds (AFPs) in a competitive market, rather than by the government (Joubert, 2015). Notably, Chileans have fewer investment options than Singaporeans, as they are mandated to choose a single AFP plan, effectively putting all of their funds in one portfolio (Krasnokutskaya et al. 2018).

The countries also differ in that Chilean employers are not responsible for paying a portion of pension contributions, whereas Singaporean employers are required to do so (Joubert, 2015). In Chile, pension contributors may not make withdrawals from their accounts during the pre-retirement stage, which stands in stark contrast to the flexibility offered in Singapore (Mesa-Lago and Bertranou, 2016). Chile's pension system is also narrower in scope than the CPF and is separate from other aspects of its income-support system.

For instance, Chile has a formal unemployment insurance (UI) system that acts as a pay-as-you-go model. In this program, the country uses additional individual accounts,

in which it is compulsory for employees to enroll (Hatherly, 2017). Workers make contributions to these accounts while employed, to develop their own personal safety net. During unemployment spells, Chileans may make withdrawals from their own accounts to help pay for expenses, as long as they meet the specified eligibility criteria outlined by the government (Tweedy, 2018). One obvious similarity between the UI system in Chile and the CPF in Singapore is that both are compulsory individual accounts. However, there is no formal unemployment insurance program in Singapore, and CPF funds are generally not intended to be used for purposes other than retirement, medical expenses, housing, and education.

The Chilean government also generally offers more expansive government programs than Singapore when comparing provisions outside of the individual accounts. Safety-net mechanisms are in place for both the pension and employment insurance systems. For pensions, Chile offers a basic redistributive pension targeted at low-income individuals without retirement income, and it tops up pension savings for Chileans with insufficient income at retirement (Joubert, 2015; Mesa-Lago and Bertranou, 2016). Similarly, a Solidarity Fund is in place for low-income workers who have insufficient balances in their Unemployment Insurance Savings Accounts (UISAs) to ensure they receive some level of benefits while unemployed (Hatherly, 2017). This contrasts with the Singapore model, which offers limited benefits besides the CPF mechanism.

Australia

Australia's pension system avoids the large state ownership role, like Singapore, while also allowing for more competition and fund diversity than Chile. All workers, including the self-employed, are required to enroll in a compulsory savings program called the Superannuation Guarantee (SG) that operates in similar fashion to the retirement account in Singapore's Central Provident Fund (Kingston and Thorp, 2019). The contributions made to the "super account" for each individual are used to provide income during retirement for Australians.

Despite the obvious similarities between Australia's and Singapore's pension systems, however, their contribution processes are quite different. Singapore splits the burden of contributions between the employer and employee, while Australia imposes the entire burden on employers. Since 2002, Australian employers must contribute an amount equivalent to 10 per cent of each employee's income into a super account (Kingston and Thorp, 2019). Employees may top up their balances with voluntary contributions, but there is no requirement for them to make any deposits (Ingles and Stewart, 2017).

The country also differs from Singapore in that the Australian government offers a wide array of means-tested transfer programs directed at specific individuals and families. These programs include the Age Pension, JobSeeker Payment, Parenting Payment, Youth Allowance, Carer Payment, and many others (Services Australia, 2021). The purpose is to provide income to eligible Australians for the purposes of retirement, rental assistance, caring for young children, unemployment benefits, and disability insurance.

For example, the Age Pension offered by the government is a means-tested universal, redistributive pension scheme. Eligibility for the Age Pension isn't based on balances in the super accounts, but rather an individual's income level (Services Australia, 2021). Amounts are clawed back as your income rises, indicating the program is primarily designed to supplement the incomes of lower-income individuals (Services Australia, 2021). This program is offered in addition to the SG scheme.

Australia's JobSeeker Payment is another program that clearly differentiates its system from Singapore's income-support system. Unemployment benefits are provided to eligible individuals between the ages of 22 and 64 who are actively seeking work and engaged in vocational education or training (Services Australia, 2021). There is no such program in Singapore for unemployed individuals, as the Singaporean government prefers to emphasize flexibility, small government, and a high degree of self-reliance through its CPF scheme.

Japan

Japan is another high-income Asian country with a robust income-support system. Like Singapore, the country has been attempting to transition away from a big government state approach to pensions and other benefits. However, the Japanese government still maintains a much larger role in the economy than its Singaporean counterparts. In fact, social expenditures as a share of GDP are nearly three times larger in Japan compared to Singapore (OECD, 2021a).

Japan's pension scheme is a three-tier system, comprised of a public national pension (NP), an Occupational Pension (OP) covering salaried workers, and private pension funds (Okamura and Usui, 2014). The NP tier differs from Singapore's scheme because it is a defined-benefit system and is more extensively available than the Solidarity Fund. The Japanese government subsidizes nearly half the payouts for the NP out of tax revenues, so it is only partially funded (Okamura and Usui, 2014). Moreover, despite consistent increases in contributions rates, the system has been unable to keep pace with the country's aging population, thus placing a significant burden on future generations of Japan (Yeh et al., 2020). Fiscal sustainability is expected to continue being an issue for decades to come, as the pension system is projected to be in deficit until at least 2050 (Bitinas, 2012).

Despite the existence of national pensions, the Occupational Pension scheme is the most important system for most Japanese pensioners. The way Japan's system is financed is similar to Singapore's Central Provident Fund, because employees and employers equally split the contribution burden (Okamura and Usui, 2014). However, Japanese workers can partially or fully offset their OP contributions by setting up private schemes (Bitinas, 2012). These optional, private, supplemental plans were introduced following reforms in the early 2000s to provide more flexibility to workers (Sakamoto, 2009).

Japan also diverges from Singapore in regards to both the breadth and depth of its income-support programs outside of the pension scheme. Japanese families and individuals are

provided with a variety of cash-based welfare benefits that can cover living expenses, housing, education, health insurance, and many other expenditures. These programs are largely means-tested, and eligibility is often hyper-focused on a recipient's income or wealth (Okamura and Usui, 2014). For instance, welfare applicants are required to sell off luxury goods and refrain from conspicuous consumption if they wish to receive financial assistance.

Japanese employers are obligated to enroll their employees in health and unemployment insurance schemes (Okamura and Usui, 2014). In addition, cash supports are offered to families living in households with dependents (elderly and children) (Bitinas, 2012). Overall, the Japanese income-support system is more expansive than Singapore's, but it also faces great difficulty in both sustainability and magnitude of cost.

Canada

Singapore's income-support system is quite different from Canada's approach. Canadian governments (both federal and provincial) have employed a much more expansive support scheme. For pensions, Canada primarily utilizes a publicly funded multi-pillar scheme consisting of the Canada Pension Plan (CPP) and Old Age Security (OAS). Mandatory contributions for the CPP are made by Canadian workers and their employers, similar to the CPF in Singapore (Beland and Wadden, 2014). However, citizens are not provided with individual accounts and the payouts are collectively funded by Canadians.

CPP funds are invested in private equities on behalf of Canadians by an independent organization called the Canada Pension Plan Investment Board (CPIB) (ESDC, 2021). This strategy aims to grow the collective CPP funds to sustainably finance pension payouts over the long term (Beland and Wadden, 2014). However, Canadians have little to no say in how these funds are invested and are offered much less flexibility than in the Singapore retirement model. CPP benefits are generally calculated based on average lifetime earnings, years of contribution, and the age of the retiree on the first payment (ESDC, 2021).

Old Age Security is a supplementary program designed to provide additional pension income to Canadian lower-income retirees. The system is financed through general tax revenue, and payouts are clawed back when your income surpasses a given income threshold (ESDC, 2021). While OAS is intended for similar purposes as the Solidarity Fund in Singapore, it involves a significantly larger role by government and offers payouts based on income status rather than account balances.

The Canadian income-support system also differs from Singapore's in that it offers a more comprehensive set of benefits outside of the pension system. For instance, employment insurance (EI) is a publicly funded system that provides temporary income support to individuals who have involuntarily lost their jobs (Fuss and Gliberman, 2020). EI is financed through joint mandatory contributions by employees and employers, and it is only paid to beneficiaries if they meet eligibility criteria such as being unemployed, actively

seeking work, and residing in a region with a high enough unemployment rate (Fuss and Gliberman, 2020). In contrast, Singapore's system does not offer any such benefits.

Other income supports in Canada involve an array of programs or services including the Canada Child Benefit (CCB), disability benefits, parental leave, social assistance, as well as the Canada Worker's Benefit (CWB) and other refundable tax credits (Government of Canada, 2021). These programs are costly to administer and require significant involvement by the different levels of government, rather than by private actors in the Canadian economy. Put differently, the Canadian income-support system is far greater in scale than Singapore's, but it comes with a higher price tag and an increased dependence on government.

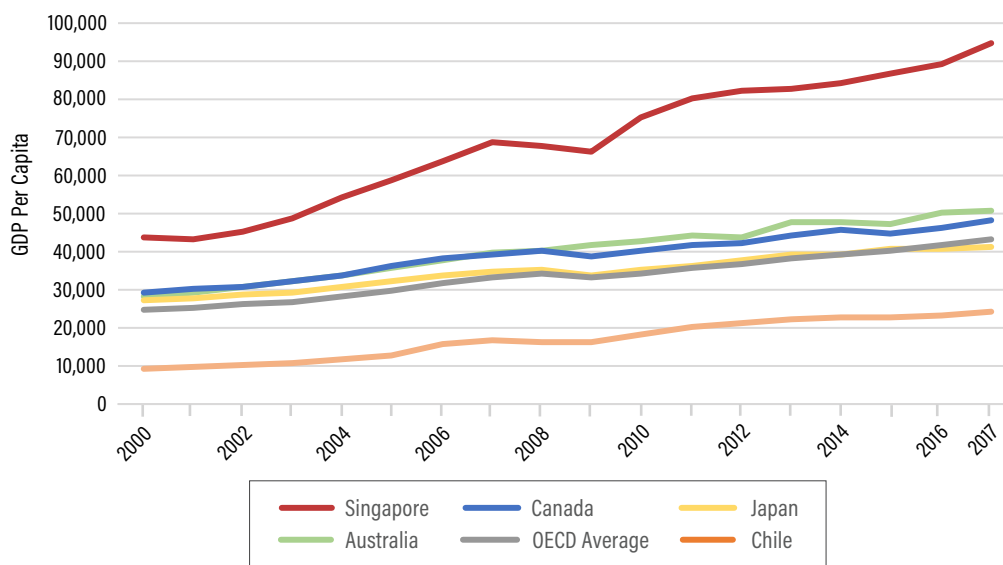
Social spending

Singapore is an outlier when one is comparing its public social expenditures with those of other advanced economies. The country's social spending was estimated to equal 8.2 percent of GDP in 2017 (Tay, 2018).⁵ In contrast, the Organization for Economic Co-operation and Development (OECD) estimates that 35 of its 36 member countries had higher social spending than Singapore (OECD, 2021a).⁶ According to the OECD, Chile's social expenditures are equivalent to roughly 11.5 percent of GDP, while Australia (16.7 percent of GDP), Canada (18 percent of GDP), and Japan (22.3 percent of GDP) all spend more than double the amount that Singapore does (OECD, 2021a). Moreover, the average amount for public social spending in the OECD is 19.9 percent of GDP. There are 17 high-income countries that are above this average, including Great Britain, Germany, Sweden, and France (OECD, 2021a).

Despite spending significantly less on social expenditures than other high-income countries, Singapore consistently enjoys high levels of economic performance. In 2017, Singapore's GDP per capita equalled US\$94,945 (OECD, 2021b). This is more than double the average amount in the OECD of US\$43,480 during the same year (OECD, 2021b). Countries like Canada and Japan that spent considerably more on social expenditures than did Singapore, for instance, registered GDPs per capita of US\$48,317 and US\$41,531, respectively. Figure 5.1 illustrates the growth of GDP per capita in Singapore and select OECD countries since 2000.

Income inequality in Singapore is also comparable to that in higher-spending OECD countries. The Gini coefficient measures a country's level of income inequality and the amount ranges between zero and one (DOSS, 2017). A score of zero represents perfect income equality and the maximum score of one represents total inequality. On this measure, Singapore is estimated to have a Gini score of 0.356 (DOSS, 2017). Other high-income countries such as Great Britain and the United States have higher levels of inequality, with scores of 0.366 and 0.390, respectively (OECD, 2021c). While Singapore does have a larger Gini coefficient (0.356) than higher-spending countries such as Australia (0.325) and Japan (0.334), the scores are relatively close (DOSS, 2017; OECD, 2021c). However, it is estimated that 110,000 to 140,000 households in Singapore live in absolute poverty,

Figure 5.1: GDP Per Capita (USD) in Singapore and OECD Countries, 2000 to 2017 (average 2017 US\$)



Source: OECD (2021b).

while around 20 to 35 per cent of households live in relative poverty (Smith et al., 2015). Table 5.3 summarizes the various measures of public spending and economic performance for Singapore and a few OECD countries.

Table 5.3: Public Social Spending and Economic Performance by Country, 2017

Country	Public Social Spending as % of GDP	GDP Per Capita (USD)	Gini Coefficient
Singapore	8.2	\$94,945	0.356
Chile	11.5	\$24,402	0.460
Australia	16.7	\$50,854	0.325
Japan	22.3	\$41,531	0.334
Canada	18.0	\$48,317	0.310
OECD Average	19.9	\$43,480	N/A

Sources: DOSS (2017); OECD (2021a; 2021b; 2021c); Tay (2018).

Conclusion

Singapore's income-support system is quite unique. The primary emphasis is placed on individuality and self-reliance, but the government does maintain a high degree of control and exercises paternalism over its citizens. While the country employs some government spending for child care, disability benefits, and supplementary income for low-income families, these programs are not expansive in nature. Instead, Singapore's pension scheme

and other income supports are offered mainly through its Central Provident Fund and personal savings accounts for retirement, health care, housing, and other expenses. Although Singapore's social spending as a percentage of GDP is well below the OECD average, the country enjoys a much higher GDP per capita and comparable income inequality with those of peer countries, though there are concerns about adequacy of supports and poverty levels. Overall, the income-support system manages to incentivize higher savings rates, provide more flexibility to members than other countries, and keep the size of government below those of other comparable countries. Drawbacks of the system include a mediocre investment performance record, a lack of transparency and accountability, a high degree of social control and paternalism, limited support for the unemployed, and the over-reliance on housing assets. Ultimately, Singapore's income-support scheme is one of the most unique models in the modern world.

Notes

- 1 The minimum sum has been increasing over the years, which has been a source of disgruntlement amongst Singaporeans since they do not have democratic control or oversight over this (Pei Ying and Shin Bin, 2015).
- 2 However, the use of MediSave cannot be used to fully offset all medical expenses subject to the requirements of co-payment. To reduce moral hazard, the Singapore government desires that people pay out-of-pocket expenses.
- 3 A working applicant refers to a mother (single or married) or to a single father who works a minimum of 56 hours per month.
- 4 It should be noted that some critics have said there may be over-savings in Singapore, since the CPF has been associated with limited funds to engage in personal ventures and entrepreneurship (Lim, 2014).
- 5 One limitation of Singapore's data is that the state has extra-budgetary means of spending, financed by reserves, surpluses, and GIC profits that may not be included by the OECD (Asher et al., 2015).
- 6 Mexico is the only OECD country estimated to have lower public social spending than Singapore.

References for Chapter 5

- Asher, Mukul, Azad Singh Bali, and Chang Yee Kwan (2015). Public Financial Management in Singapore: Key Characteristics and Prospects. *Singapore Economic Review* 60, 3. <<https://doi.org/10.1142/S0217590815500320>>, as of November 15, 2023.
- Beng, Chew Soon (2012). Employment-Based Social Protection in Singapore: Issues and Prospects. *ASEAN Economic Bulletin* 29, 3: 218–229. <<https://www.jstor.org/stable/pdf/43184882.pdf>>, as of November 15, 2023.
- BIPO (2018). *An Overview of Singapore's Social Security System*. <<https://www.biposervice.com/wp-content/uploads/2018/01/An-Overview-of-Singapores-Social-Security-System.pdf>>, as of November 15, 2023.
- Bitinas, Audrius (2012). Pension System in Japan: Issues for Reform. *Jurisprudence* 19, 1: 269–292.

- Central Provident Fund [CPF] (2021). *CPF Statistics*. <<https://www.cpf.gov.sg/employer/infohub/reports-and-statistics/cpf-statistics>>, as of November 23, 2023.
- Central Provident Fund Board [CPF Board] (2021). *CPF Overview: How CPF Works*. <<https://www.cpf.gov.sg/member/cpf-overview>>, as of November 24, 2023.
- Department of Statistics Singapore [DOSS] (2017). *Key Household Income Trends, 2017*. Government of Singapore. <<https://www.singstat.gov.sg/-/media/files/publications/households/pp-s24.pdf>>, as of November 15, 2023.
- Early Childhood Development Agency [EDCA] (2021). *Subsidies and Financial Assistance*. Government of Singapore. <<https://www.ecda.gov.sg/parents/subsidies-financial-assistance>>, as of November 24, 2023.
- Employment and Social Development Canada [ESDC] (2021). *CPP Retirement Pension: Overview*. Government of Canada. <<https://www.canada.ca/en/services/benefits/publicpensions/cpp.html>>, as of November 15, 2023.
- Gill, Alisha, and Donald Low (2016). Rethinking Singapore's Asset-Based Welfare System. In Joachim Sim (ed.), *Beyond 50: Re-Imagining Singapore*. (Really Good Books): 211–220. <<https://www.singaporepools.com.sg/assets/COMLib/Beyond50.pdf#page=212>>, as of November 16, 2023.
- Government of Canada (2021). *Benefits*. <<https://www.canada.ca/en/services/benefits.html>>, as of November 15, 2023.
- Guilford, Gwynn (2015). A Blogger Dared to Question the Singapore Miracle, and Now the Prime Minister is Trying to Bankrupt Him. *Quartz*. <<https://qz.com/497287/singapore-blogger-roy-ngereng-sued-by-prime-minister-lee>>, as of November 15, 2023.
- Hatherly, Justin (2017). An Alternative to Employment Insurance: Perspective for Atlantic Canada. Atlantic Institute for Market Studies. <<https://www.aims.ca/wp-content/uploads/2017/09/Read-the-study.pdf>>, as of November 15, 2023.
- Hemachandra, D.W.K. (2010). Policy Recommendations on Reducing Financial Vulnerabilities among Elderly Females in Singapore. *Wayamba Journal of Management* 1 (2). <<http://repository.wyb.ac.lk/bitstream/handle/1/2015/WAYABA-JOURNAL-OF-MANAGEMENT-2010-ii-29.pdf?sequence=2>>, as of November 15, 2023.
- Ingles, David, and Miranda Stewart (2017). Reforming Australia's Superannuation Tax System and the Age Pension to Improve Work and Savings Incentives: Reforming Australia's Retirement Tax System. *Asia & the Pacific Policy Studies* 3 ,4: 417–436. <<https://doi.org/10.1002/app5.184>>, as of November 16, 2023.
- Joubert, Clement (2015). Pension Design with a Large Informal Labor Market: Evidence from Chile. *International Economic Review* 2 ,56: 673–694. <<https://doi.org/10.1111/iere.12118>>, as of November 16, 2023
- Kingston, Geoffrey, and Susan Thorp (2019). Superannuation in Australia: A Survey of the Literature. *Economic Record* 95, 308: 141–160.
- Koh, Benedict, Olivia Mitchell, and Joelle Fong (2008). Cost Structures in Defined Contribution Systems: The Case of Singapore's Central Provident Fund. *Pensions* ,13 1 (May): 7–14.

- Koh, Benedict, and Olivia Mitchell (2010). What's On the Menu? Included Versus Excluded Investment Funds for Singapore's Central Provident Fund Investors. *Pensions* 15, 4 (November): 276–286.
- Koh, Benedict (2014). Singapore's Social Security Savings System: A Review and Some Lessons for the United States. *Wharton Pension Research Council Working Papers* 101. <<http://dx.doi.org/10.2139/ssrn.2523555>>, as of November 16, 2023.
- Krasnokutskaya, Elena, Yiyang Li, and Petra Todd (2018). Product Choice Under Government Regulation: The Case of Chile's Privatized Pension System. *International Economic Review* 59, 1: 1747–1783. <[DOI:10.1111/iere.12319](https://doi.org/10.1111/iere.12319)>, as of November 16, 2023.
- Lim, Linda Y.C. (2014). Singapore's Success After the Miracle. In Robert Looney (1st ed.), *Handbook of Emerging Economies* (Routledge Publishing): Chapter 11. <<https://relooney.com/NS3040/Chapter-11-Singapore.pdf>>, as of November 15, 2023.
- McCarthy, David, Olivia Mitchell, and John Piggott (2002). Asset Rich and Cash Poor: Retirement Provision and Housing Policy in Singapore. *Wharton Pension Research Council Working Papers* 692. <<https://repository.upenn.edu/server/api/core/bitstreams/a72bc81c-f47f-4376-8350-97ee27acb2a8/content>>, as of November 16, 2023.
- Mercer (2020). *Mercer CFA Institute Global Pension Index 2020*. <<https://www.mercer.com.au/content/dam/mercera/attachments/private/asia-pacific/australia/campaigns/mcgpri-2020/MCGPI-2020-full-report-1.pdf>>, as of November 15, 2023.
- Mesa-Lago, Carmelo, and Fabio Bertranou (2016). Pension Reforms in Chile and Social Security Principles, 1981-2015. *International Social Security Review (English edition)* 1 ,69: 25–45. <[DOI:10.1111/issr.12093](https://doi.org/10.1111/issr.12093)>, as of November 17, 2023.
- Ministry of Health [MOH] (2022). *Comparison of Integrated Shield Plans*. Government of Singapore. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life/comparison-of-integrated-shield-plans>>, as of November 15, 2023.
- Ministry of Manpower [MOM] (2021). *What is the Central Provident Fund (CPF)?* Government of Singapore. <<https://www.mom.gov.sg/employment-practices/central-provident-fund/what-is-cpf>>, as of November 15, 2023.
- Ministry of Social and Family Development [MSF] (2021). *What We Do*. Government of Singapore. <<https://www.msf.gov.sg/what-we-do/index/support-families-and-parents#>>, as of November 24, 2023.
- Najarzadeh, Reza, Michael Reed, and Mona Tasan (2014). Relationship Between Savings and Economic Growth: The Case for Iran. *Journal of International Business and Economics* 2, 4 (December): 107-124. <[DOI: 10.15640/jibe.v2n4a7](https://doi.org/10.15640/jibe.v2n4a7)>, as of November 17, 2023.
- Ngerng, Roy (2018). Analysis: Why Temasek Holdings' Singapore Pensions Claim is Tosh. *The News Lens*. <<https://international.thenewslens.com/article/100586>>, as of November 15, 2023.
- Okamura, Tsunao, and Emiko Usui (2014). The Effect of Pension Reform on Pension-Benefit Expectations and Savings Decisions in Japan. *Applied Economics* 46, 14 (May): 1677-1691. <<https://doi.org/10.1080/00036846.2013.870654>>, as of November 15, 2023.

- Organization for Economic Co-operation and Development [OECD] (2021a). *Expenditure for Social Purposes*. <<https://www.compareyourcountry.org/social-expenditure/en/0/547/default/2017>>, as of November 15, 2023.
- Organization for Economic Co-operation and Development [OECD] (2021b). *Gross Domestic Product (GDP)*. <<https://data.oecd.org/gdp/gross-domestic-product-gdp.htm>>, as of November 15, 2023.
- Organization for Economic Co-operation and Development [OECD] (2021c). *Income Inequality*. <<https://data.oecd.org/inequality/income-inequality.htm>>, as of November 15, 2023.
- Pei Ying, Lim, and Tan Shin Bin (2015). Saving the CPF: Restoring Public Trust in Singapore's Retirement Savings System. *National University of Singapore*. <https://lkyspp.nus.edu.sg/docs/default-source/case-studies/cpf-case_final_feb2015.pdf?sfvrsn=eac0960b_2>, as of November 15, 2023.
- Phang, Sock Yong (2007). The Singapore Model of Housing and the Welfare State. *Research Collection School of Economics*. <https://ink.library.smu.edu.sg/soe_research/596>, as of November 15, 2023.
- Sakamoto, Junichi (2009). The Current Situation of Retirement Income Provisions in Japan: Social Security Pension Schemes and Corporate Pension Plans. *Asian Social Work and Policy Review* 2 ,3: 122–141. <<https://doi.org/10.1111/j.1753-1411.2009.00029.x>>, as of November 16, 2023.
- Services Australia (2021). *Individuals*. Government of Australia. <<https://www.service-australia.gov.au/individuals>>, As of November 24, 2023.
- Smith, Catherine, John Donaldson, Sanushka Mudaliar, Mumtaz Kadir, Lam Keong Yeoh (2015). A Handbook on Inequality, Poverty, and Unmet Social Needs in Singapore. *Singapore Management University*. <<https://core.ac.uk/download/pdf/111751484.pdf>>, as of November 15, 2023.
- Tay, David (2018). Balancing Social Spending with Financial Prudence. *The Straits Times*. <<https://www.straitstimes.com/opinion/balancing-social-spending-with-financial-prudence>>, as of November 15, 2023.
- Teo, Youyenn (2015). Interrogating the Limits of Welfare Reforms in Singapore. *Development and Change* 1 ,46: 95–120.
- Straits Times (2015). *Speakers at CPF Protest Call For Flexibility, Better Returns, Greater Transparency for CPF Scheme*. <<https://www.straitstimes.com/singapore/speakers-at-cpf-protest-call-for-flexibility-better-returns-greater-transparency-for-cpf>>, as of November 15, 2023.
- Tremewan, Christopher (1994). The Political Economy of Social Control in Singapore. *Palgrave Macmillan London*. <<https://link.springer.com/book/10.1007/978-1-349-24624-3>>, as of November 15, 2023.
- Tweedy, Jaclyn (2018). Social Insecurity: A Proposal to Reform the United States Social Security Retirement System. *Indiana International and Comparative Law Review* 28, 129: 129-161.

United States, Social Security Administration [SSA] (2018). *Social Security Programs Throughout the World: Asia and the Pacific, 2018*. Singapore. Government of the United States. <<https://www.ssa.gov/policy/docs/progdesc/ssptw/2018-2019/asia/singapore.html>>, as of November 15, 2023.

Workfare Income Supplement [WIS] (2021). *Workfare Income Supplement Enhancements*. Government of Singapore.

Workfare (2022). *Workfare Skills Support (WSS) Scheme*. Government of Singapore. <<https://www.wsg.gov.sg/home/individuals/attachment-placement-programmes/workfare-skills-support-scheme/>>, as of November 24, 2023.

Yeh, Chung-Yang, Hyunwook Cheng, and Shih-Jiunn Shi (2020). Public-Private Pension Mixes in East Asia: Institutional Diversity and Policy Implications for Old-Age Security. *Ageing and Society* 40, 3: 604-625. <[DOI:10.1017/S0144686X18001137](https://doi.org/10.1017/S0144686X18001137)>, as of November 24, 2023.

IS SINGAPORE A FREE MARKET ECONOMY?

Bryan Cheang

To what extent has Singapore followed a free market economic model? Many will point to the fact that despite its high economic freedom rankings (discussed in chapter 1), there has been substantial government intervention into markets in the form of government-linked corporations (GLCs), sovereign wealth funds, and a range of other industrial policy initiatives. While this is the case, throughout Singapore's economic history, the size of the GLC sector has been a source of contention, such that the government decided to embark on a privatisation exercise in the 1980s in order to maintain commercial discipline (Low, 1991). Nevertheless, industrial policy has been a prominent government practice in Singapore, with substantial subsidies, loans, and incentives given to foreign multinationals, as well as to domestic businesses for economic upgrading purposes (Chia, 2005; Cheang, 2022). Indeed, one of Singapore's leading economists, Linda Lim, wrote that the free market is a myth in Singapore, where the visible hand of the government has been more significant than previously realised (Lim, 1983).

The apparent contradictions in Singapore's political economy merit additional discussion. What explains why an economy ranked as one of the freest in the world is also one that has numerous GLCs in operation? Why is it that an open economy that relies on markets, globalisation and private investment simultaneously engages in intrusive industrial policy by the state? Within the specific area of social policy, the Central Provident Fund (CPF) policy is itself a paradox. While it is based on the principle of self-responsibility, it relies on coercion. Individuals are forced to be self-reliant. One can ask if the CPF is a free market policy, and (more broadly) the degree to which Singapore follows a free-market model.

These are legitimate questions without easy answers. The best way to understand these apparent contradictions is with reference to the worldview of Singaporean policy officials, who primarily adopt an elite-driven, pragmatic outlook. Policymaking power is concentrated in the hands of a small elite who are supposedly knowledgeable, having been trained and educated in the best schools. Reliance on elite decision-making reflects the technocratic, as opposed to democratic, characteristics of Singapore politics. At the same time, government elites believe that they make decisions on purely neutral, technical grounds that best serve the people (Barr M. D., 2006). Government officials claim to be pragmatic and free from ideological blinders and rigid political positions. The current Prime Minister Lee Hsien Loong says it best:

there is an approach that we have applied in Singapore. A government that is pragmatic—it looks for solutions that work, rather than starting out from any ideological presumptions. It depends to a considerable degree on the free market because markets make economies efficient. But at the same time, the government is not shy to play a very active role—in public housing, education, healthcare, infrastructure. (Beech and Abdoolcarim, 2015)

Through the lens of pragmatism, what seem like inconsistencies to ideologically consistent individuals are par for the course for the Singapore government. That is why it is common to hear rhetoric that may sound inconsistent, often within the same speech itself, from a variety of government leaders. For example, in 2015, Prime Minister Lee gave a keynote address to NTUC National Delegates, where the media reported him as declaring: “amid headwinds in the global economy and competition from developing countries as well as advanced economies, the way forward for Singapore is to ride the wave of globalisation and use the power of free markets” (Neo, 2015). Score one for classical liberalism. Yet, while not reported, in the same speech just minutes later, he also said that, “the State—the Government—has got to create the conditions so that the markets can generate prosperity for all of us,” and that the government must “mitigate the excesses and the negative effects of a market system” (Prime Minister’s Office, Singapore, 2015). A classical liberal may leave the speech wondering if the Prime Minister had just announced a market-leaning policy package. In short, what might seem inconsistent to outsiders is perfectly consistent in the pragmatic mindset of Singaporean officials, who have always sought to balance the roles of markets and the state.

This commitment to pragmatism is why the Singaporean government has embraced market institutions and policies. Market institutions are seen as beneficial because of their consequentialist benefits in terms of economic growth and efficiency and not because of moral considerations such as individual freedom. Markets in Singapore are accepted only to the extent that they achieve goals of economic growth and efficiency. It should also be noted that historically, Singapore was not born out of revolution, or out of a resistance against established authority, as was the case in Western Europe and the United States.

Without a principled allegiance to a set of natural or human rights (such as in the United States, where natural rights are enshrined in the Constitution and widely appreciated in the wider culture), the Singapore government readily discarded markets when other objectives emerged that it deemed important. Such objectives mainly encompass national security, political control, and social stability, which the government has often prioritised. For example, mandatory conscription is an anti-classical liberal institution that has persisted in Singapore because it is believed to be essential to maintaining national security in a region rife with socio-political tensions (Shu and Ong-webb, 2018). GLCs are maintained, in part, because it affords the state significant—though indirect—political control over the economy (Low, 2002). Restrictions on the sale of certain items, such as drugs, cigarettes, pornography, and alcohol—commonplace in Singapore—are all justified on

grounds of ensuring a society that is stable, well-ordered, and free from the vices typically seen in the Western world.

Singapore's embrace of markets and market-based policies are also borne out of geographical exigencies. Since Singapore is a small city-state with a small domestic market and no natural resources, the political elites realised that for economic survival, a global outlook was essential, underlying their embrace of free trade, open immigration, and foreign investment. Market competition was also justified on the grounds that local enterprises *need* to be competitive in order to successfully compete on a global level. Thus, Singapore's embrace of markets was and is driven by economic survival, and not based on a deeper socio-cultural appreciation of the moral virtues of freedom on which market capitalism is based. What this means once again is that other exigencies which are deemed pressing at any given moment—whether they involve national security, political control, or social stability—may, as part of some broad cost-benefit rationalisation, trump markets.

The prioritisation of security, political control and social stability suggests that the Singapore government may be labelled as conservative, though imperfectly so. Like political conservatives in the Western world, the Singapore government generally supports economic freedom (within limits), and socially conservative civil policies, which may explain why LGBTQ relations remain frowned upon and why vices are often heavily suppressed. This conservative outlook of the Singapore government stems from its history and the personal values of its founding father, Lee Kuan Yew. Singapore was born in tumultuous circumstances, having experienced a communist insurgency, racial riots, and political tensions with Malaya during the unsuccessful merger, among other problems. From the early onset, this forged in Singapore's leaders a siege mentality and a sense of vulnerability for which they have since tried to compensate through tough policies emphasising security, law and order, and social stability (Singh, 2017, p. 8). Moreover, Lee Kuan Yew was a conservative, who strongly subscribed to traditional values of hard work and meritocracy. He also had elitist tendencies and believed in natural hierarchies in human relations (Barr, 2000). This quote by Lee Kuan Yew is noteworthy:

I started off believing all men were equal. I now know that's the most unlikely thing ever to have been, because millions of years have passed over evolution, people have scattered across the face of this earth, been isolated from each other, developed independently, had different intermixtures between races, peoples, climates, soils... I didn't start off with that knowledge. But by observation, reading, watching, arguing, asking, and then bullying my way to the top, that is the conclusion I've come to. (Barr, 1999, pp. 150-151)

These comments help explain Singapore's conservative credentials.

Yet, even the term conservative is an imperfect label at best. The Singapore government, far from being a slave to tradition, has often been willing to break away from past practices in order to achieve pragmatic benefits for the people. One example was the decision to welcome foreign multinationals in the 1960s, which at the time was opposed by

conservative voices for fear of foreigners perpetuating neo-colonialism. The decision to open Singapore to foreign direct investment was considered a progressive decision made in the economic interests of the burgeoning economy. Another vivid example was the conscious—one might say progressive—decision by the government to build casinos in in the early 2000s in the interest of economic growth, a decision which attracted opposition from the conservative right. Hence, even conservative principles have been abandoned by the government when the situation called for it.

What remains is therefore a sense that the government knows best. If the Singapore government has adopted policies from across various ideologies, then what criteria does it use to adjudicate competing ideas? This is a difficult question to answer. The best answer to be offered here is that the government is an elite-driven technocracy that believes itself capable of selecting the best policies (Cheang and Choy, 2021), based on the criteria it chooses, loosely guided at best by the goal of economic progress. If there is any single ideology that the government can be said to adhere to, it would be the priority of economic growth.

The next natural question that might be asked is why the Singapore government believes itself to be so competent in identifying the right policies? Mainly, its leaders have historically been drawn from the intelligentsia and the professional class who share the belief that academic achievements are reflective of merit.¹ Like begets like, and this system has perpetuated itself from the beginning. Significantly, the public administration apparatus has consciously developed human resource policies to attract the best talents from the private sector to join the government (Quah, 2010). Government scholarships to top universities are generously offered to the best performing students, who in turn are attracted to government careers due to its high status. With doctors, engineers, lawyers, and various professionals forming the government, there is also a strong conviction in the power of big data and the technological sciences to understand and plan society (Cheang and Choy, 2021). This is why the Singapore civil service routinely resorts to scenario planning, with a Centre for Strategic Futures responsible for anticipating future “black swan events” that should guide current policymaking (Harris, 2014).

Assessment

It must therefore be conceded that Singapore is by no means a *laissez-faire* minimal state as favoured by classical liberals. The size and scope of state activity in Singapore far exceeds the classical liberal ideal. It would be more accurate to describe Singapore as following a hybrid, state-guided form of capitalism, with a complex interplay of state and market elements in its political economy. The theoretical concept that best explains Singapore’s political economy is the developmental state model that first arose in East Asia (see Haggard, 2018 for a primer on what this is). Whether or not the market or state elements are more significant in Singapore, and how the interaction of both affects Singapore’s prospects are subjects of a separate study (Cheang, 2022).

There are positive and negative aspects of Singapore’s economic performance. On the negative, there are concerns that high growth rates have been achieved without corresponding

achievements in productivity, innovation, and entrepreneurship, due to the pro-active use of industrial policy by the developmental state (Cheang, 2022). Yet, there are some positive aspects to be learned in relation to Singapore's institutions as well. The most central one of all is Singapore's highly reputable legal system, which is both efficient and transparent. Rule of law in Singapore is well-regarded, protecting persons and property. This significant achievement is documented by consistent high scores by legal organisations (Ministry of Law, Singapore, 2021). Singapore's tax rates are also highly competitive, and are capped at a maximum of 22%, even for the highest earners. Thus, it is unsurprising that it has been ranked as one of the most competitive economies in the world.

Importantly, it should be noted that because Singapore is not a *laissez-faire* utopia does not mean that there are no important lessons to be learned from its use of market-based institutions in policymaking, which is nevertheless significant. The fact that Singapore is a mixed economy does not detract from the fact that in social policy for instance, there exists a high degree of reliance on personal responsibility, community self-help and private mechanisms, all of which are typically downplayed in welfare states. The goal of equity, which many would accept as an important plank of government policy, is pursued in Singapore in ways that are compatible with meritocracy, personal responsibility and the work ethic, a praiseworthy approach worth considering elsewhere.

Significant also is Singapore's high premium on economic growth. On the surface, most societies value economic growth, since it expands economic prosperity for all. Who would object to growth? Yet, economic growth is often compromised, or at least diminished in the service of other non-material or even post-material objectives, be it inclusivity, diversity, or environmental sustainability. This is why the emphasis around the world today is on inclusive or sustainable growth, with the emphasis on *inclusive* and *sustainable*.

Singapore stands apart in its unwavering conviction that economic growth is critical to achieving alternative public policy objectives. In particular, economic growth is seen as benefitting the least well-off and contributing to environmental goals. It is unsurprising, therefore, that Singapore believes in supporting green industries, as an engine of both economic growth *and* environmental progress (Cheang and Choy, 2021). Not only are social and environmental policies in Singapore pursued in a way that is growth friendly, but it is also believed that growth can positively contribute to national welfare broadly defined. Economic growth is what creates jobs and better jobs for Singaporeans, especially for low-wage and low-income workers (NUS, 2019). Additionally, Singapore has stood firmly against protectionist sentiments in recent years, with the conviction that free trade and globalisation are the bedrock of the Singapore model (Baharudin, 2021). The Singapore government has repeatedly insisted that an open immigration policy is essential for sustained economic growth and the well-being of all residents (Chan, 2020).

Far from a vulgar commitment to materialism, Singapore's prioritisation of economic growth reflects a modern pragmatic outlook centred on social progress. This is consistent with the classical liberal belief that economic growth produces win-win opportunities for all.

Even though Singapore is not a *laissez-faire* minimal state economy, it does rely on market-based instruments in various aspects of policymaking, namely in education, healthcare, housing and transportation, among others. In education, education savings accounts—called *Edusave*—are used to promote personal responsibility, and a wide degree of autonomy is given to schools to administer their affairs and plan their curriculum. Market competition is also incorporated into healthcare policy design, and again with a substantial degree of decentralisation amongst local hospitals and service providers (Haseltine, 2013). Housing is an interesting area. Even though a large majority of the population lives in public housing, the government has often sought to “work with markets” in the area of urban development. The government implemented the Government Land Sales (GLS) program in the 1970s, which is essentially a public-private partnership to release land for private sector development, coupled with the provision of incentives and the streamlining of planning rules to attract private sector participation (see Koh, 2017, ch. 3). The government also set up private sector-like, corporate entities to support national development. For example, the Resources Development Corporation was a privately-run and corporatized—though state-owned—entity that supported the government’s large-scale home building projects in the 1980s (Koh, 2017). In the area of transportation, Singapore is, famously, the first nation to have used road pricing to regulate congestion.

These are myriad examples from Singapore of the incorporation of markets and private sector techniques into policymaking that are worth emulating elsewhere, even if Singapore is not a *laissez-faire* minimal state in the textbook sense.

Should Singapore be emulated?

Some critics would object that the Singapore model may not be worth emulating. For all its achievements, especially in the economic realm, there is a dark side to Singapore that should be acknowledged. Here, critics of the Singapore model would point to its political system, specifically the way in which it falls short of the liberal democratic ideal favoured in the West. Such criticisms range from the moderate to the scathing. Singapore is known for its paternalism, most famously for banning bubble-gum. The passing of Lee Kuan Yew led many to reflect on his rule as a “benevolent dictator.” More extreme critiques paint the incumbent People’s Action Party as an all-controlling, almost totalitarian, state (see Tremewan, 1996).

It should be conceded that Singapore is by no means a liberal democracy. It is at best an electoral democracy, with free, fair, and regular elections held, but with civil liberties restricted in various ways (see Freedom House, 2020 for a comprehensive analysis). The press is controlled due to restrictive legislations. Effectively, the leading media outlets are state-controlled. Free speech is also curtailed through the regular use of libel lawsuits to silence critics of the incumbent party, which have caused many opposition activists to become bankrupt. Freedom of assembly is limited, and the extreme case that recently gained media attention involved an activist being charged for illegal

assembly simply for holding up a smiley face sign in front of a police station (Beech, 2020). Such political repression has also somewhat hampered the development of the creative sectors (Cheang, 2022).

It is important to evaluate nations on a comparative basis, lest one is guilty of the nirvana fallacy, which is the mistake of judging an imperfect institution against an unrealistic, perfect ideal (Demsetz, 1969). One should always ask “as compared to what?” (Boettke, 2013). While Singapore is not a liberal democracy, it is still by far a much better place to live than most developing countries where people live under clearly rapacious governments. When one looks at the blatant corruption, nepotism, and sheer predation that still exist in wide swathes of Africa, the Middle East, and Latin America, the “sins” of Singapore seem to pale in comparison. This is not to excuse Singapore’s political under-development, but it is to frame things in perspective.

Therefore, whether Singapore should be emulated will also depend on who is the one doing the learning. Clearly, Singapore has much to learn from the West in terms of how political freedoms and civil liberties are prioritised, not just as a pragmatic benefit, but as a cardinal virtue. When it comes to achieving material welfare and personal safety, developing countries have much to learn from Singapore.

Additionally, just because Singapore is not a liberal democracy does not mean there are no positive lessons to be drawn from it. Additionally, given the specific problems that the West is currently experiencing arising from the growth of their welfare states, the anti-welfare orientation of Singapore is particularly instructive.

In simpler words, draw the right lessons. Don’t learn from Singapore’s bad political practices, but learn from the way it grows its economy, and particularly the way it encourages fiscal responsibility, self-reliance, and community mutual aid in social policy.

What lessons are to be drawn also depends on what we wish to learn in the first place, and there are indeed many problems in social welfare policies around the world. The United Kingdom for instance has relied on a single-payer model of healthcare provision through the National Health Service, which has been rightly criticised for its inefficiency and wasteful spending.² Studies have shown that health outcomes may have been compromised by the NHS, rather than enhanced by it (Niemi, 2016). The United States also has a problem regarding its social security system. It has been warned that the system is on an unsustainable path, with spending projected to outstrip social security revenues, given demographic changes and social pressures to maintain and even expand benefits (Bureau of the Fiscal Service, 2021).³

Given these problems in social policy, it becomes clear that the Singapore model offers useful policy insights. This does not mean that Singapore’s entire policy-making apparatus should be mimicked, or its political repression ignored, but rather to narrow our focus to lessons that fit the learner’s circumstances.

So, what are the valuable lessons to glean from Singapore?

Other countries should not copy Singapore wholesale but look at discrete, limited, and specific areas in Singapore's public policies, specifically social policy. Notable is Singapore's commitment to long run economic growth. Singapore, like virtually all countries, provides social assistance to the least well-off. But Singapore has never allowed social assistance or even redistribution to take precedence over economic growth; in other words, there is a recognition that growing the pie for all is more important than distributing slices of it. The logic is simple: with economic growth comes good jobs for Singaporeans, and good jobs mean higher incomes.

The second related lesson is the centrality of work. Since economic growth is important for social uplift, the Singapore government supports individuals in finding gainful employment. To those who say "give me welfare, I cannot work," the government will respond: "we will give you (some) welfare, if you work," as opposed to "we will give you welfare to replace work." Understandably, there are those who are unable to find work no matter how hard they try ("I have no skills, nobody wants me"), and this is why retraining programs are plentiful in Singapore ("we will help you get trained"). These programs target a wide range of individuals, from low-skilled workers, to retrenched (returning to the labour force) workers, to mature workers seeking re-employment in a different industry. Of course, in a free market, minimal state society, such government spending on retraining would not even exist. Yet, if one were to choose between pure, unconditional transfer payments or retraining programs, the latter seem the better choice.

The emphasis on work is part of Singapore's larger policy of meritocracy. It is believed that individuals should be rewarded based on their hard work and talent, rather than ascriptive factors like race, religion, or ethnicity, all of which are beyond an individual's control. It is reminiscent of the Christian saying, "if a man will not work, he shall not eat." Accordingly, meritocracy is a practice that runs through the government's recruitment policy, the education system, and the business culture. Singaporeans are brought up to believe that one must earn rewards, through the attainment of merit, which is usually equated with attaining stellar educational achievements (Cheang and Choy, 2021, ch. 3). Meritocracy is best reflected in Singapore's relatively low tax rates, which feature high personal allowance exemptions (Inland Revenue Authority of Singapore, 2021). Differences in tax brackets are small, preventing disincentive effects that may occur if one faces a much higher tax burden as one's income increases. By way of a simple comparison: a typical new graduate in Singapore earning the median annual salary of SGD46,080 will only pay a tax of SGD\$550 on the first 40k + 7% of the remaining SGD6080, leading to a total tax of SGD975.60 for the entire year. That's an average tax rate of just 2.12%, as compared to the standard basic rate of 20% in the United Kingdom. The principle is simple: individuals are rewarded for work; more work, more rewards.

The deeper principle pertaining to social policy is the use of means-testing and conditionalities. There are some schemes in Singapore that offer social assistance without conditions to fulfil, but these are few and are limited only to the very needy in society.

One example is the ComCare Long Term Assistance scheme, which provides ongoing financial support for long-term care to a carefully defined group of stakeholders (Ministry of Social and Family Development, 2021).⁴ There are also few government-funded social programs in Singapore that one is entitled to simply by virtue of being a resident, or a citizen.⁵ It should be emphasized that welfare schemes in Singapore are generally not universal, and means testing is regularly used.⁶ This means that schemes such as the universal basic income, or universally-accessible welfare services are anathema to Singapore, and thus resisted.

The recognition that work should not be displaced by welfare is, in turn, linked to an understanding of incentives. Good policymaking must recognise that incentives matter, and if the design of social policy is such that individuals are incentivised not to work, or to delay gainful employment, then such programs may be rejected. The appreciation of incentives is in turn linked to the pragmatic mindset of government leaders, who aim to evaluate policies based on their likely consequences and overall impact, rather than with reference to some political ideal.

The recognition that incentives matter is part of market-based policymaking. Though Singapore operates a developmental state capitalist model on the whole, specific areas of policymaking exhibit praiseworthy market-based characteristics worth noting. Let's take a specific example from the utilities industry, where market pricing is used in the delivery of water in Singapore. Singapore recognises the fundamental principle of scarcity, and resorts to pricing to ensure conservation and for operating costs to be defrayed (Public Utilities Board, Singapore, 2021). The Public Utilities Board also entered several public-private partnerships to improve water infrastructure and service delivery. Overall, Singapore has managed to meet the increased demand for water over the years, and today is recognised as a model for integrated water management and a “Global Hydrohub”, i.e., a leader in water innovation (Dhalla, 2017).

The use of market mechanisms is also seen in Singapore's urban development, which could have far-reaching impacts on property prices, housing costs and environmental quality if mismanaged. Over the years, Singapore urban planners have worked with markets, most obviously through its Land Sales program, where the state carefully makes land available with basic infrastructure, and then works with private developers on joint projects. This has “led to a strong partnership between the public and private sectors, underpinning the physical development of Singapore, supporting population and economic growth, and helping to maintain a stable and sustainable property market” (Centre for Liveable Cities, Singapore, 2017). Admittedly, Singapore falls short of a classical liberal ideal, but its respect for market incentives clearly differentiates it from full-fledged socialist regimes where private property is suppressed, and markets are illegal.

Effective policymaking goes beyond economic incentives, however. The economic pragmatism of Singapore's leaders is also associated with a rather hard-nosed, (some would say cynical), view of human nature. Once again, this stems from the personal worldview of Lee Kuan Yew, which has cast a long shadow over policy design. He famously said:

Mine is a very matter-of-fact approach to the problem. If you can select a population and they're educated and they're properly brought up, then you don't have to use too much of the stick because they would already have been trained. It's like with dogs. You train it in a proper way from small. It will know that it's got to leave, go outside to pee and to defecate. No, we are not that kind of society. We had to train adult dogs who even today deliberately urinate in the lifts. (Han, Fernandez, and Tan, 2015, 195-197)

This quote represents the belief that Singaporean individuals must be trained, told what to do, lest they misbehave.⁷ In terms of social policy, the Singapore government has never hesitated to believe, and act on the belief, that if given a chance, individuals will shirk, be lazy, and become dependent if welfare is too generous. They have also never shied away from the belief that individuals will make bad choices and gamble away their savings, hence the use of the CPF system.

Is this a mindset that is worth emulating? Once again, it may not seem that bad when compared to the political naivety that we observe amongst some advocates of egalitarianism. Whether the proposal in question is that of socialism, the welfare state, or some further increase of social spending in society, the rhetoric we hear all too often these days ignores economic realities. The utopian fantasies of many egalitarian ideologies have been disproven by economic science, best seen in the collapse of Soviet and Eastern European socialism. The actual realities of socialism have not matched their idealistic pronouncements. Perhaps the pragmatic mindset of Singapore's leaders warns one against an uncritical embrace of egalitarian social policies that are inconsistent with economic growth and improved standards of living.

Can the Singapore model be exported?

At this juncture, some may respond: the Singapore model is great, but how can we actually transfer and implement the lessons of Singapore's experience? There is a concern that the Singapore model of governance and its public policies are based on unique factors that are not replicable elsewhere. If this is true, then at best Singapore offers an interesting example that cannot be implemented elsewhere.

This caveat is certainly relevant. It is not possible to export any model of governance completely from one country to another, and to reject this claim is to ignore the way in which institutions and polities are culturally specific. Academic political economists have pointed out how the success of institutional change depends on the concept of "institutional stickiness," which is "a function of that institution's status in relationship to indigenous agents in the previous time period" (Boettke, Coyne, & Leeson, 2008, 331). Institutions that are imposed exogenously by foreigners with no regard to the local context will fail, while those which grow indigenously from within tend to be more successful. This principle explains why efforts to export democracy in the world have failed, and even well-intentioned efforts to implement property rights and rule of law institutions in poor countries have stalled (Coyne, 2008; Nicoara and Boettke, 2015).

Consequently, there are unique contextual factors that have made Singapore what it is today. First, it experienced a form of colonialism that was relatively benevolent under the British, a process which saw it inherit modern institutions and experience trade and immigration-driven economic growth. Second, Singapore is also a small city-state that is geographically located in Southeast Asia. This has meant that there was added pressure for Singapore to open itself up to the world, and its unique territorial position has also made it attractive as a destination for business and trade throughout history. These were historically contingent factors that gave Singapore a massive head start in its contemporary development efforts just after World War 2 (Cheang, 2022). Therefore, it is impossible to replicate another “Singapore success story,” divorced from the historical and geographical factors that it experienced.

However, just because Singapore cannot be copied in full does not mean that there are no lessons to be drawn from Singapore. One should not seek to copy another model, which would be a fatally ambitious and impossible task, but simply learn discrete and limited lessons from specific policy areas in Singapore’s experience, which is more realistic. What others should learn about Singapore is not only its success in achieving economic growth, but also ensuring that equity is achieved through growth. Unlike in European welfare states, equity has not trumped economic growth. Take this contrast: homeownership in Singapore is one of the highest in the world, compare this with the housing crisis in the UK, where young people are severely priced out of the market.⁸ One of the famous leaders in Singapore history, Goh Keng Swee, summarised this achievement of Singapore as “a socialism that works.”

It is important to remember that principles are universal, but implementation is local. There are principles of Singapore’s success and policy experience that may be understood universally, though implementation will need to take into account local constraints. There are two important considerations that must be grappled with regarding Singapore’s policy experience, namely its success with providing social welfare.

First is the capable, effective, and accountable government that Singapore possesses, which has made the sound policies possible. Often, good economics stem from good politics, and vice versa. Political interests are often the barrier to desirable economic reform (Acemoglu and Robinson, 2000). This interconnection between economics and politics suggests that nations that wish to learn from the good economic (and social) policies of Singapore must also understand the political foundations that made it possible. Notwithstanding its authoritarian tendencies, Singapore’s public service has an excellent global reputation, and many of its practices deserve attention—merit-based recruitment, strong stance against corruption, incorporation of market-principles in service delivery, use of private sector techniques in managing public corporations, constitutional limits on budget spending, and inculcation of a strong ethos of public service (Quah, 2010; Haque, 2004).

The Singapore public service’s favourable world reputation should be contrasted with what seems like dysfunctional politics in much of the West today. One especially pernicious problem has been the severity of rent-seeking and crony capitalist behaviour. Some

have also shown how special interest groups hold outsized influence in places like the United States (Lewis, 2013; Stockman, 2013; Whaples, 2019). For all its faults, this is not a charge that has been levelled against the Singapore state. Perhaps this is a happy by-product of its curbs on democracy, but world organisations all over have acknowledged that Singapore's leaders generally implement good policies that respond to people's concerns. The United Nations Development Program once pointed out the governance lessons that others should draw from Singapore:

Singapore's experience in successfully building and then evolving its Public Service over time demonstrates that public service development is possible and worthwhile, albeit difficult, complex, and time-consuming. It is clear that Singapore's experience has many valuable lessons to offer to any administration seriously interested in achieving better governance (Saxena, 2011, p. 147).

The second important factor to consider is the culture. In Singapore, the reason why many of its social policies work is because people genuinely share in a culture of self-responsibility. This is not merely the rhetoric of government leaders or elite propaganda. Citizens genuinely believe that dependence on the government is a failing to be avoided, and that the individual and the family should be the first source of help. Singaporeans are also fiercely meritocratic and imbibe in the shared value "work for reward, reward for work." This is why the social policies (as described in other chapters in this volume) are readily accepted by Singaporeans, an achievement which may be difficult to realize in societies without the same degree of self-reliance.

Some lament that culture is a barrier to successful policy reform. After all, culture is difficult to change, and may take a very long time, if ever. Seen this way, it may be extremely difficult to implement Singapore-style CPF savings programs or co-payment-heavy social schemes in other countries. But one should not despair, because cultural change, while difficult and slow, is possible through intellectual activism. Other countries wishing to emulate Singapore's successful social policies must find ways to encourage and foster a culture of self-reliance.

Political economists have pointed out that successful institutional reform and policy change have much to do with the intellectual climate of opinion (López and Leighton, 2012). In short, ideas matter. Intellectual activists and political entrepreneurs can do much good if they manage to champion a new mindset, a new way of thinking about the world. This actually gives us cause for optimism. Arguably, the most important lesson to be drawn from Singapore is not a specific policy, but an idea articulated by its leaders and shared by most. It is an idea to be championed and shared. It is the idea articulated by former Minister of Singapore Rajaratnam:

Once people believe that the government will provide everything then they lose the faculty of self-reliance, of personal initiative and of learning to do things for themselves...The P.A.P. Government right from the start

rejected the idea that it was Government which created a prosperous democratic society. It came to the conclusion that *work created prosperity*; that the harder and more intelligently people worked the greater their prosperity; that the harder and better a citizen worked the more should be his share of the prosperity (Rajaratnam, 1982, emphasis added).

Notes

- 1 It is interesting that at the time of the writing of this chapter, one prominent government Minister in Singapore was caught in a “hot mic” situation, where his private conversation was inadvertently overheard by other parliamentarians. He had privately mocked his opposition counterpart for sounding “illiterate”, and for not reflecting the elite institution that he had hailed from. (Kutohi, 2021)
- 2 One of the most egregious cases readers should be aware of is the wasteful spending to the tune of £7.6 billion per year, on “overpriced loo rolls, lost crutches, wheelchairs, and management consultants.” (Gornall, 2017)
- 3 Moeller, P. (2019, April 22). *Medicare and Social Security Stay on Unsustainable Financial Paths, reports show*. PBS NewsHour. <<https://www.pbs.org/newshour/health/medicare-and-social-security-stay-on-unsustainable-financial-paths-reports-show>>, as of January 12, 2024.
- 4 Ministry of Social and Family Development, Singapore. (2021). *ComCare Long-Term Assistance* | Ministry of Social and Family Development.
- 5 Perhaps one notable exception is the recent Medishield Life program, which is a basic health insurance plan that covers all Singaporeans and which “helps to pay for large hospital bills and selected costly outpatient treatments, such as dialysis and chemotherapy for cancer.” (Ministry of Health, Singapore, 2021).
- 6 Ministry of Social and Family Development. Singapore. (2021). *Assistance* | Ministry of Social and Family Development. <<https://www.msf.gov.sg/assistance/Pages/default.aspx>>, as of January 16, 2024.
- 7 This may also explain the persistence of harsh corporal punishments in Singapore as a method of discipline, namely caning.
- 8 Spratt, V. (2019, April 15). *Inside the housing crisis: Why I live in a cupboard*. BBC Three. <<https://www.bbc.co.uk/bbcthree/article/1e6c9bcb-31b9-493b-9018-f6f4b94f9552/>>, Singapore’s home ownership rate is about 88%, one of the highest in the world. See Chua, N. (2021, September 28). *Mothership Explains: Why most S’poreans own their homes instead of renting*. Mothership. <<https://mothership.sg/2021/09/hdb-home-ownership-history/>>, as of January 12, 2024.

References for Conclusion

- Acemoglu, D., and J. A. Robinson (2000). Political Losers as a Barrier to Economic Development. *American Economic Review*, 90, 2: 126–130.
- Baharudin, H. (2021, July 7). FTAs and Globalisation Critical to Singapore’s Survival: Ong Ye Kung. *The Straits Times*. <<https://www.straitstimes.com/singapore/politics/parliament-ftas-and-globalisation-critical-to-singapores-survival-says-ong-ye>>
- Barr, M. D. (1999). Lee Kuan Yew: Race, Culture and Genes. *Journal of Contemporary Asia*, 29, 2: 145–166.
- Barr, M. D. (2000). *Lee Kuan Yew: The Beliefs Behind the Man*. Georgetown University Press.

- Barr, M. D. (2006). Beyond Technocracy: The Culture of Elite Governance in Lee Hsien Loong's Singapore. *Asian Studies Review*, 30, 1: 1–18.
- Beech, H. and Z. Abdoolcarim, (23 July, 2015). *Exclusive: Singapore Prime Minister Lee Hsien Loong Speaks Candidly with TIME*. <<https://time.com/3969196/singapore-lee-hsien-loong-interview-50th-anniversary/>>, as of January 12, 2024.
- Boettke, P. (2013). Comparative Historical Political Economy. *Journal of Institutional Economics*, 9, 3: 285–301.
- Boettke, P., C. Coyne, and P. Leeson, (2008). Institutional Stickiness and the New Development Economics. *American Journal of Economics and Sociology*, 67, 2: 331–358.
- Bureau of the Fiscal Service. (2021). *An Unsustainable Fiscal Path*. <<https://fiscal.treasury.gov/reports-statements/financial-report/mda-unsustainable-fiscal-path.html>>, as of January 12, 2024.
- Centre for Liveable Cities, Singapore. (2017). *Working with Markets: Harnessing Market Forces and Private Sector Development*. <<https://www.clc.gov.sg/docs/default-source/urban-systems-studies/working-with-markets.pdf>>, as of January 12, 2024.
- Chan, C. S. (2020, January 6). Singapore's Economic Growth and Job Creation Have Benefited Citizens More than Foreigners. *TODAYonline*. <<https://www.todayonline.com/commentary/singapores-economic-growth-and-job-creation-have-benefited-citizens-more-foreigners>>, as of January 12, 2024.
- Cheang, B. (2022). *Economic Liberalism and the Developmental State: Hong Kong and Singapore's Post-War Development*. Palgrave Macmillan.
- Cheang, B., & Choy, D. (2021). *Liberalism Unveiled: Expanding Policy Discourse in Singapore*. World Scientific.
- Chia, S. Y. (2005). *The Singapore Model of Industrial Policy: Past Evolution and Current Thinking*. Singapore Institute of International Affairs.
- Coyne, C. J. (2008). *After War: The Political Economy of Exporting Democracy*. Stanford University Press.
- Demsetz, H. (1969). Information and Efficiency: Another Viewpoint. *The Journal of Law and Economics*, 1: 1–22.
- Dhalla, A. M. (2017). Developing a Global Hydrohub: Singapore's Leadership in Water Innovation. In S. Ahuja, *Chemistry and Water*: 541–552. Elsevier.
- Freedom House. (2020). *Singapore*. <<https://freedomhouse.org/country/singapore>>, as of January 12, 2024.
- Gornall, J. (2017, April 5). How the NHS wastes £7.6bn a year. *Daily Mail Online*. <<https://www.dailymail.co.uk/health/article-4377250/How-NHS-wastes-7-6bn-year.html>>, as of January 12, 2024.
- Haggard, S. (2018). *Developmental States*. Cambridge University Press.

- Han, F. K., W. Fernandez, and S. Tan (2015). *Lee Kuan Yew: The Man and His Ideas*. Marshall Cavendish International.
- Haque, S. M. (2004). Governance and Bureaucracy in Singapore: Contemporary Reforms and Implications. *International Political Science Review*, 25, 2: 227–240
- Harris, S. (29 July, 2014). *The Social Laboratory*. <<https://foreignpolicy.com/2014/07/29/the-social-laboratory/>>, as of January 12, 2024.
- Haseltine, W. (2013). *Affordable Excellence: The Singapore Healthcare Story*. Brookings Institution Press.
- Inland Revenue Authority of Singapore. (2021). *Individual Income Tax*. <<https://www.iras.gov.sg/taxes/individual-income-tax/basics-of-individual-income-tax/new-to-tax/individual-income-tax-rates>>, as of January 12, 2024.
- Koh, B. S. (2017). *Working with Markets: Harnessing Market Forces and Private Sector for Development*. Centre for Liveable Cities.
- Lewis, H. (2013). *Crony Capitalism in America: 2008-2012*. Axios Press.
- Lim, L. (1983). Singapore's Success: The Myth of the Free Market Economy. *Asian Survey*, 23, 6: 752–764.
- López, E. J., and W. A. Leighton, (2012). *Madmen, Intellectuals, and Academic Scribblers: The Economic Engine of Political Change*. Stanford University Press.
- Low, L. (1991). *The Political Economy of Privatisation in Singapore: Analysis, Interpretation, and Evaluation*. McGraw-Hill.
- Low, L. (2002). Rethinking Singapore Inc. and GLCs. *Southeast Asian Affairs*, 282–302.
- Ministry of Health, Singapore (2021). *MOH | MediShield Life*. <<https://www.moh.gov.sg/cost-financing/healthcare-schemes-subsidies/medishield-life>>, as of January 16, 2024.
- Ministry of Law, Singapore (2021). *Social and Economic Indicators*. <https://mlaw.gov.sg/files/news/parliamentary-speeches/2021/AnnexA_Social_and_Economic_Indicators.pdf>, as of January 12, 2024.
- National University of Singapore [NUS] (2019, July 22). *Meritocracy not to blame; Indranee spells out 4G team's approach to tackle inequality*. <<https://fass.nus.edu.sg/srn/2019/07/22/meritocracy-not-to-blame-indranee-spells-out-4g-teams-approach-to-tackle-inequality/>>, as of January 12, 2024.
- Neo, C. C. (26 October, 2015). Ride Globalisation Wave to Move S'pore Forward: PM. *Today Online*. <<https://www.todayonline.com/singapore/tripartism-right-singapore-amid-global-challenges-pm>>, as of January 12, 2024.
- Nicoara, O., and P. J. Boettke, (2015). What Have We Learned from the Collapse of Communism? In *Oxford Handbook of Austrian Economics*. Oxford University Press.

- Niemietz, K. (2016). *Universal Healthcare without the NHS: Towards a Patient-Centred Health System*. London Publishing Partnership.
- Prime Minister's Office, Singapore. (26 October, 2015). *PM Lee Hsien Loong at Opening Dinner of the NTUC National Delegates' Conference 2015*. <<https://www.pmo.gov.sg/Newsroom/pm-lee-hsien-loong-opening-dinner-ntuc-national-delegates-conference-2015>>, as of January 12, 2024.
- Public Utilities Board, Singapore. (2021). *Water Pricing*. <<https://www.pub.gov.sg>>, as of January 12, 2024.
- Quah, J. S. (2010). *Public Administration Singapore-style*. Emerald Group Publishing Limited.
- Rajaratnam, S. (24 April, 1982). *Speech by Minister S. Rajaratnam*. <<https://www.nas.gov.sg/archivesonline/data/pdfdoc/SR19820424s.pdf>>, as of January 12, 2024.
- Saxena, N. C. (2011). *Virtuous Cycles: The Singapore Public Service and National Development*. United Nations Development Programme.
- Shu, H. H., and Ong-webb, G. G. (2018). *National Service In Singapore*. World Scientific.
- Singh, B. (2017). *Understanding Singapore Politics*. World Scientific.
- Stockman, D. (2013). *The Great Deformation: The Corruption of Capitalism in America*. PublicAffairs.
- Tremewan, C. (1996). *The Political Economy of Social Control in Singapore*. Palgrave Macmillan.
- Whaples, R. M. (2019). The Road to Crony Capitalism: An Introduction. *Independent Review*, 23, 3: 325–330.

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