# Singapore's Productivity Challenge: Part III

*"When a significant deviation becomes apparent [in labour demand and supply], one of the following measures should be adopted:… Allow wages to rise until a shake-out, possibly through a recession, takes place."*
*– The Strategic Economic Plan, 1991.*[1]

*"While we must keep our doors open to foreign workers, we must carefully manage the inflow to benefit our economy… and ensure that they complement rather than displace Singaporean workers, and ultimately create more jobs for Singaporeans."*
*– Report of the Economic Review Committee, February 2003.*[2]

*"The rapid increase in foreign workers in recent years has enabled us to seize opportunities, grow our economy and in so doing, create jobs and raise the incomes of Singaporeans. However, we have become more dependent on foreign workers, who now make up almost one-third of the total workforce."*
*– Report of the Economic Strategies Committee, February 2010.*[3]

*"Overall, two-thirds of Singaporeans will hold PMET [Professional, Managerial, Executive and Technical] jobs in 2030, compared to about half today… As Singaporeans upgrade themselves into higher-skilled jobs, more of the lower-skilled jobs will have to be done by foreigners."*
*– Population White Paper, January 2013.*[4]

*"And as everyone knows too, there are many sectors such as the Construction, Marine and Process industries, and even in some Service industries, where there will remain a significant shortage of local workers and where we will continue to need foreign workers for some time to come. However, the basic reality is that these sectors which are most dependent on foreign workers are also the ones furthest behind international standards of productivity, and which account for the lag in productivity in our overall economy."*
*– Mr Tharman Shanmugaratnam, Deputy Prime Minister and Minister for Finance, 2013 Annual Budget Statement.*[5]

*"The big 10-year economic restructuring plan launched in 2010 is now approaching its halfway mark, and the results so far have been hardly inspiring."*
*– The Straits Times, "Is Singapore's competitiveness on the slide?", Oct 28, 2014.*

[1] Ministry of Trade and Industry (MTI), *The Strategic Economic Plan*, 1991, p106
[2] MTI, *Report of the Economic Review Committee*, February 2003, p45.
[3] MTI, *Report of the Economic Strategies Committee*, Feb 2010, p2.
[4] National Population and Talent Division (NPTD), *A Sustainable Population for a Dynamic Singapore: Population White Paper*, January 2013, Executive Summary.
[5] Parliament of Singapore, "Annual Budget Statement", February 25, 2013.

This case was written by Hawyee Auyong under the guidance of Donald Low, Lee Kuan Yew School of Public Policy (LKY School), National University of Singapore and has been funded by the LKY School. The case does not reflect the views of the sponsoring organization nor is it intended to suggest correct or incorrect handling of the situation depicted. The case is not intended to serve as a primary source of data and is meant solely for class discussion.

This case examines how Singapore's policy decisions for economic development in the past, while appropriate in their particular historical context, produced unintended consequences and knock-on effects that now limit the country's on-going efforts to increase labour productivity in Singapore.

This case is divided into three parts. Each part is bookended by an economic crisis that Singapore faced or by the government committees convened to review economic policies in response to these crises.

- **Part 1**: From the 1961 Winsemius report to the 1985 recession.
- **Part 2**: From the 1986 Economic Committee report to the 1997 Asian Financial Crisis.
- **Part 3**: From the 1997 Asian Financial Crisis to current efforts to raise labour productivity.
- **Part 4**: The challenges facing policymakers in light of slowing global demand and future technological disruptions to jobs and employment.

**Overview of Part 1**

Part 1 of this case covered the existential economic challenges facing Singapore even before the country gained independence in 1965, and highlighted the government's successful responses to these challenges, first by solving the severe unemployment problem through a rapid industrialisation process that relied on foreign capital and know-how, and then supporting continued, strong economic growth by upgrading the quality of its workforce; and second by supplementing and complementing the local workforce with foreign labour. Up till the 1985 recession—Singapore's first since independence—reining in the country's growing reliance on foreign labour was seen by the government as integral to industrial restructuring toward higher labour productivity. The 1985 recession interrupted these plans.

**Overview of Part 2**

The 1985 recession was a sharp but short one, and Singapore again managed to regain double-digit economic growth by 1987, helped in no small part by the rapid reduction in, and suppression of, wages and other business costs. The 1990s saw the emergence of criticism by prominent economists that Singapore's efficiency in utilising factors of production was low. Even before these criticisms, parliamentarians had continued to warn against over-dependence on foreign labour. But the economic growth of Singapore for this period continued to be significantly supported by population growth (including migrant labour growth).

**The Asian Financial Crisis…**

The 1997 Asian Financial Crisis originated in Thailand in mid-1997 and quickly spread to the regional economies. Regional currencies fell precipitously against the US Dollar (with most depreciating between 30 to 80 per cent[6]) and stock markets slumped as foreign lenders and investors panicked. Singapore eventually dipped into recession in 1998.

In contrast to other regional economies severely impacted by the crisis, Singapore escaped relatively unscathed because of its strong macroeconomic fundamentals and timely government interventions. But because the Singapore Dollar depreciated less against the US Dollar (by less than 20%[7]), the country's exports became less price competitive than others from the region. Disinclined to intervene in the foreign exchange market to further lower the Singapore Dollar as the crisis became protracted, the government opted instead for cost cutting measures to restore competitiveness.[8]

As part of the cost reduction package that included wide ranging cuts to government-set fees and charges, the employer's contribution to CPF[9] was reduced from 20% to 10%. This was similar to the government's response to the 1985 recession, when the employer's contribution rate was cut from 25% to 10% (subsequently restored, although not fully). On top of the CPF cuts (which did not affect take home pay), the NWC[10] recommended wage reductions of between 5 to 8%[11] with the government taking the lead by slashing many civil service salaries by up to 5% and freezing the salaries of ministers and senior civil servants[12]. NWC's wage reduction recommendations went further than its previous guidelines during the volatile 1970s (see **Part 1**, p11) and in the aftermath of the 1985 recession (see **Part 2**, p3), both occasions when only "wage restraint" was urged. The effect of this cost reduction package was to "plunge" unit labour costs back to 1992/1993 levels[13], restoring cost competitiveness to Singapore's exports.

The Singapore economy recovered strongly from its second recession. By 2000, prospects for the economy seemed "bright"[14], with the economy growing by an impressive 9% that year.[15]

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[6] Ngiam Kee Jin, "Coping with the Asian Financial Crisis: The Singapore Experience", *Institute of Southeast Asian Studies Visiting Researchers Series No. 8*, Mar 2000, p6.
[7] Ibid, p6.
[8] Ibid, p2.
[9] Central Provident Fund is an individualized, defined contribution pension fund that has restrictions to prohibit most types of withdrawals before retirement. Both employees and employers contribute a percentage of the employee's monthly salary into the CPF account.
[10] National Wages Council, a 'tripartite' body comprising representatives from the three social partners—the employers, the trade unions, and the Government that issues national wage guidelines. See **Part 1**, p12 and **Part 2**, p3.
[11] Parliament of Singapore, "Budget, Ministry of Manpower", Mar 15, 1999.
[12] Parliament of Singapore, "Summary of Adjustments of November 1998 Cost Cutting Measure", Nov 23, 1999.
[13] Parliament of Singapore, "Annual Budget Statement", Feb 26, 1999.
[14] Parliament of Singapore, "Annual Budget Statement", Feb 25, 2000.
[15] Singapore Department of Statistics, "Time Series on GDP at 2005 Market Prices and Real Economic Growth".

**… and a decade of economic volatility**

As it turned out, high and stable growth in the decade following the Asian Financial Crisis would prove to be elusive. In quick succession, the 2001 global electronics crash[16] (affecting Singapore's substantial electronics exports), the 2003 SARS[17] outbreak (affecting regional tourism and trade), and the 2007/2008 Global Financial Crisis each buffeted Singapore's open, exports-driven, and trade-dependent economy.

As early as 2004, it became clear that the decade following the 1997 crisis would not be as calm as the one preceding it. Then-Deputy Prime Minister and Minister for Finance Lee Hsien Loong (now Prime Minister) opened his 2004 budget statement by pointing out this new reality:

> *"In the last six years, the Singapore economy experienced more volatility and uncertainty than it had encountered over the previous 30 years. Beginning with the Asian Financial Crisis in 1997, a series of external shocks buffeted our economy and ended a decade of uninterrupted growth."*[18]

Faced with this uncertain decade, Singapore adopted a strategy of seizing growth opportunities whenever global conditions were favourable. Prime Minister Lee Hsien Loong explained this strategy in his 2006 National Day Rally speech:

> *"I think that when conditions are good and the sun is shining,* ***we should go for it, as fast as we can, as much as we can.*** *Get the growth, put it under our belt, put it aside a little bit, so when the thunderstorm comes again, we will be ready."*[19] *[Emphasis added]*

Due to Singapore's labour constraints, it was necessary for foreign labour to be imported in order to take advantage of these growth opportunities. Reflecting back on Singapore's policy responses to this decade of volatility in 2010, Minister for Finance Tharman Shanmugaratnam said in his 2010 Budget Statement:

> *"Much of our growth in the last 10 years took place from 2004 to 2007, when our GDP grew an average of 8% per year. We were able to achieve this because companies could obtain the workers they needed to seize opportunities to expand while the environment was favourable… Our workforce grew rapidly over those four years, by 5% per year, with foreigners accounting for about half of the growth. By going for growth when the conditions allowed, we offset the downturns we experienced earlier in the decade—first, when the global dot-com bubble burst in 2000, then with 9/11, and again when SARS hit us in 2003. The upshot is that* ***by allowing in foreign workers so that we could go for***

[16] Global semiconductor chip sales shrank by 32% in 2001; Parliament of Singapore, "Annual Budget Statement", Mar 5, 2002.
[17] Severe Acute Respiratory Syndrome, a viral disease with a 10% fatality rate that originated from southern China and spread to 37 countries including Singapore.
[18] Parliament of Singapore, "Annual Budget Statement", Feb 27, 2004.
[19] Lee Hsien Loong, *National Day Rally*, Aug 20, 2006.

> ***growth in the good years**, we reduced unemployment, and raised wages for Singaporeans after the standstill in the first part of the decade… This was therefore **not a strategy of "growth at all costs"**, but of growing our economy to raise Singaporean incomes."*[20] *[Emphases added]*

A few months after that, Prime Minister Lee Hsien Loong explained that because of the strong recovery from the recession, the demand for labour in Singapore was so great that the economy risked overheating if the import of foreign workers was slowed:

> *"Even with that [moderation of import of foreign workers], I imagine there will be more than 100,000 extra foreign workers*[21] *this year. I cannot see it otherwise. **But we have to accept that**."*[22] *[Emphasis added]*

Although necessary to maintain a high rate of economic growth, this strategy resulted in an increase in the foreign workforce that many Singaporeans felt was too rapid. Giving voice to these sentiments, then-Minister Mentor (and founding Prime Minister) Lee Kuan Yew later observed in 2011: "We've grown in the last five years by just importing labour. Now, the people feel uncomfortable, there are too many foreigners." Mr Lee also estimated that it might take five years for the country to scale back its need for foreign workers.[23]

## The push for an innovation-driven economy

However, the continued reliance of the economy on foreign labour did not mean that the government had stopped trying to restructure the economy. Even before the 1990s, the government realised that a concerted effort was needed to shift Singapore's industries towards products and services with higher innovation and technology content.

The report from the 1998 Committee on Singapore's Competitiveness (CSC) highlighted that, *"Given our limited resources, Singapore has to compete on the basis of capabilities rather than costs… As competition intensifies, Singapore needs to move continually up the technological and capabilities ladder."*[24] The committee recommended that the government invest more heavily in long term R&D (Research and Development), increase technology transfer to the private sector, train more R&D personnel, and improve the start-up environment in Singapore.[25]

GERD (Gross Expenditure on R&D) can be used a broad indicator of the importance of R&D in a country's economy. The government set an initial target of 3 per cent by 2010[26] (later raised to

[20] Parliament of Singapore, "Annual Budget Statement", Feb 22, 2010.
[21] Approximately 3% of the total workforce and 10% of the total foreign workforce in 2010.
[22] "100,000 more foreign workers needed: PM Lee", *The Straits Times*, July 15, 2010.
[23] "Fewer foreign workers in five years, says MM", *The Straits Times*, January 28, 2010.
[24] MTI, *Committee on Singapore's Competitiveness*, Nov 1998, p97.
[25] Ibid, pp99-102.
[26] Parliament of Singapore, "Annual Budget Statement", Feb 15, 2008.

3.5 per cent by 2015[27], a level comparable that in most developed countries). In 2006, the government set up the National Research Foundation (NRF) to support long-term research projects that required large initial public investment. These efforts were successful in raising Singapore's GERD from 1.9 per cent in 2000 to 2.77 per cent in 2008.[28]

R&D, by its nature, is a long-term endeavour. Its effects would take a long time to be felt in the wider economy. However, by 2008 (when the economy was again growing strongly, and before the full effects of the Asian Financial Crisis hit Singapore) policymakers were confident that efforts to restructure the economic growth to be more innovation-driven (and less factor-driven) were already showing early signs of success. Minister for Finance Tharman Shanmugaratnam said in his 2008 Budget Statement:

> *"We have been aided by a favourable global environment. But Singapore's strong growth in recent years has mainly been the result of our broad-ranging efforts to restructure our economy, labour market and fiscal system.* ***This is not a story of an old economy growing quickly, but of a new economy emerging out of the old.*** *It is about how we are attracting new and cutting edge investments, capitalising on opportunities in new growth industries and markets abroad, upgrading our workers' skills and competing at an advantage. Indeed this is why we have been growing much faster than other developed countries—faster than any other country with the same standard of living as us."*[29] *[Emphasis added]*

**A renewed zeal for productivity**

Although the attention paid to labour productivity was obvious during and immediately after the 'wage shock therapy' years of 1979 to 1981, after the 1985 recession the focus shifted to keeping unemployment low and the economy growing (see **Part 2**, p8).

Only after Singapore had recovered from its 2009 recession did the downsides of relying on labour force injections to drive growth become increasingly evident. Labour productivity, once again, became a priority for the government. In 2010, the Economic Strategies Committee (ESC) set a bold target of 2 to 3 per cent annual productivity growth for the decade leading up to 2020.[30]

In the 2010 Budget Statement delivered the following month, the word "productivity" was mentioned 72 times—more than double the previous peak of 26 times (in 1983, after the 'wage shock therapy' years of 1979 to 1981, see **Figure 1**).

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[27] MTI, *Report of the Economic Strategies Committee*, Feb 2010, p65.
[28] Ibid.
[29] Parliament of Singapore, "Annual Budget Statement", Feb 15, 2008.
[30] MTI, *Report of the Economic Strategies Committee*, Feb 2010, p(i).

The 2010 budget also introduced a slew of measures to achieve ESC's labour productivity target and to "manage our dependence on foreign workers" including:

- An increase in foreign worker levies[31] to dissuade businesses from being over-reliant on foreign workers;
- A reduction in the growth of the foreign workforce;
- The setting up of the National Productivity and Continuing Education Council (NPCEC) to coordinate "the major national effort required to boost skills and enterprise productivity, and develop a comprehensive system for continuing education and training;
- An enhancement to the Workfare Income Supplement (WIS[32]) to encourage older workers to stay in the workforce; and
- The introduction of a generous, broad-based Productivity and Innovation Credit (PIC) to encourage businesses to make investments to enhance business value and processes.

See **Annex 1** for a summary of productivity-related measures introduced in recent years.

[31] A (per headcount) monthly fee payable to the Ministry of Manpower by businesses that hire foreign workers, first introduced in 1986 as a way to manage the demand for foreign labour (see **Part 1**, p10).
[32] An income supplement programme designed at first for lower income workers, with both CPF and cash components. WIS effectively functions like a negative income tax.

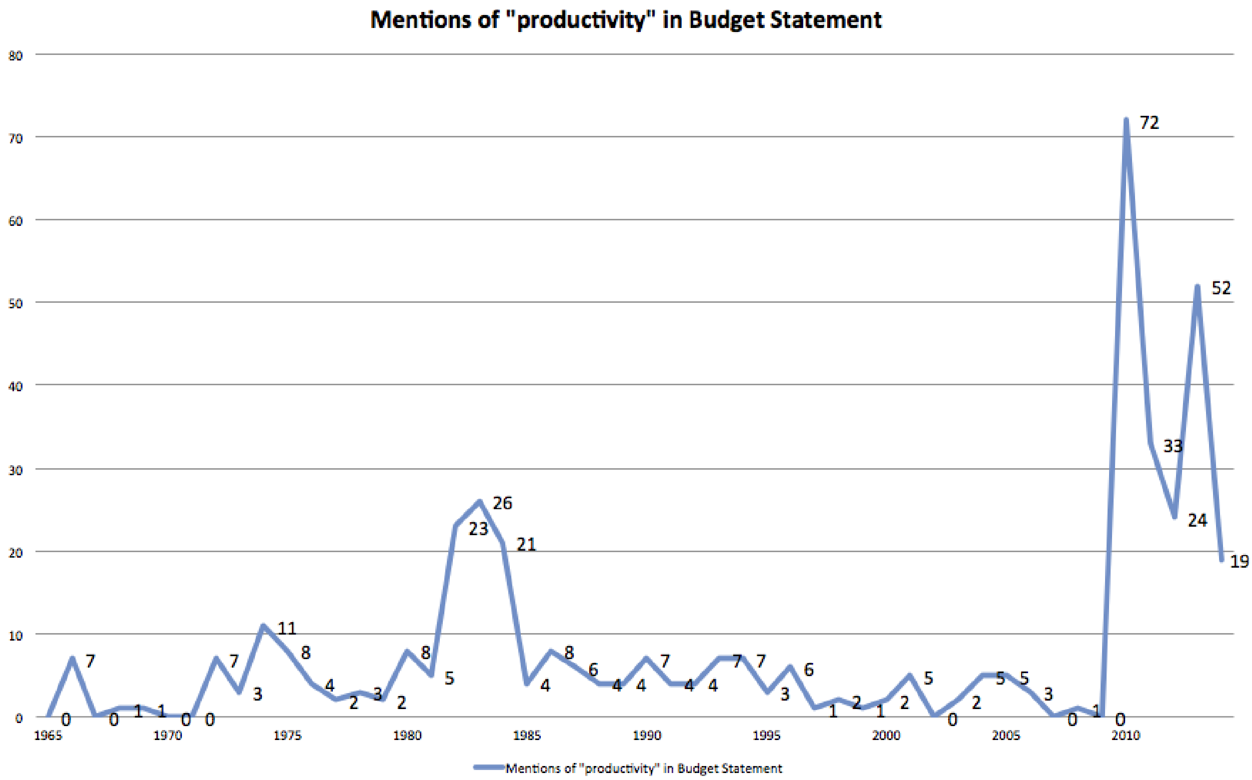


**Figure 1 –** Number of mentions of the word "productivity" in annual Budget Statements.[33]

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**Box article: Shifting attitudes towards immigrant labour**

Although Singapore started out as a nation of immigrants, as Singapore imported more foreign labour to support its economic growth, the attitudes of the general population towards the rising proportion of newer immigrants have shifted somewhat over the years. Most prominently, in 2008 more than 1,400 residents in Serangoon Gardens housing estate signed a petition to the government to protest the opening of a nearby foreign worker dormitory designed to house 1,000 workers, citing the risk of higher crime rates and lower property values.[34]

In 2013 after the government released the Population White Paper, about 4,000 Singaporeans turned up at Hong Lim park (the only space in Singapore where public protests are legal) to express their displeasure at the projected population by 2030 of 6.9 million.[35]

[33] Parliament of Singapore.
[34] "Serangoon dorm opens, fuss-free", *My Paper*, Dec 7, 2009.
[35] "4,000 turn up at Speakers' Corner for population White Paper protest", *Yahoo! News Singapore*, Feb 16, 2013.

There have also been recent incidents of social unrest attributable to the rising proportion of foreign labour in Singapore. In Nov 2012, 102 Chinese-national bus drivers working for SMRT went on a wildcat strike over pay, the first strike in Singapore in 25 years.[36] In Dec 2013, a road accident in the Little India neighbourhood that resulted in the death of a 33-year-old Indian national sparked off a riot involving 400 people (comprised mostly of South Asian nationals) who threw stones at and set fire to emergency vehicles, and who attacked emergency responders.[37] This incident sparked off much xenophobic comment online which Prime Minister Lee Hsien Loong condemned as "hateful".[38]

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## Structural obstacles to growing labour productivity

Notwithstanding on-going efforts to enhance labour productivity, some structural features of Singapore's economy could continue to be impediments.

### *Dependence on foreign labour and labour force growth*

With past decades of growth supported by a rapid rise in foreign labour, some have argued that Singapore's economic model has become structurally dependent on foreign labour for growth. Tackled decades earlier, this problem might have been easier to solve.[39]

The extent to which growth has become dependent on foreign labour was apparently not expected by many policymakers. Remarking that Singapore could not possibly accommodate a doubling of the foreign workforce, Prime Minister Lee Hsien Loong said in 2008:

> *"We already have almost a million foreigners working here and **we cannot imagine simply expanding year after year and one day having two million foreigners working in Singapore.** We just do not have the space for that… If you have two million foreign workers, I think we do not have enough Serangoon Gardens [to build dormitories for these workers]."*[40] *[Emphasis added]*

Yet, the 2013 Population White Paper released less than 5 years later projected that Singapore's non-resident (i.e. foreign) population would have to reach 2.1 to 2.7 million by 2030 in order to support the country's continued economic growth.[41]

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[36] "Bus drivers in Singapore's first strike in 25 years", *AFP News*, Nov 28, 2012.
[37] "Singapore's Angry Migrant Workers", *The New York Times, Dec 27, 2013.*
[38] Statement on Facebook, Dec 9, 2013. (https://www.facebook.com/leehsienloong)
[39] Ashish Lall, "Singapore's Productivity: Déjà vu", Presentation at the *Lee Kuan Yew School of Public Policy 10th Anniversary Conference*, Oct 17, 2014.
[40] Lee Hsien Loong, Speech at the NTU Students' Union Ministerial Forum, Sep 15, 2009.
[41] NPTD, *Population White Paper*, January 2013, p49.

This was also the case in 1991, when the government did not expect the population to grow as fast as it did in the coming decades, or for GDP growth to be so reliant on labour force growth. A government report issued that year projected that even with significant immigration, Singapore's population in 2030 would reach only 4.4 million[42], a figure that was exceeded 24 years ahead of schedule in 2006.[43] In fact, the report suggested that the government should aim for a lower target of 4 million by 2030 in order for there to be further room to grow beyond then.[44]

The same report also argued that because Singapore's economy was very dependent on the external environment, it was prone to "large imbalances between labour demand and supply", and recommended that if demand for labour deviated significantly from the available supply, the government could be "more strict with [industrial] promotional incentives[45] or other fiscal measures" or "[a]llow wages to rise until a shake-out, possibly through a recession, takes place".[46]

While a dependence on foreign labour might not have an impact on labour productivity *per se*, on hindsight it appears that sectors that relied the most on low cost foreign labour were also laggards in labour productivity. Minister for Finance Tharman Shanmugaratnam said in his 2013 Budget Statement that: *"[T]he basic reality is that these sectors which are most dependent on foreign workers are also the ones furthest behind international standards of productivity, and which account for the lag in productivity in our overall economy."*[47]

This observation is in line with the warning issued decades earlier in 1979 by then-Minister for Trade and Industry Goh Chok Tong[48] when he launched the 'wage shock therapy': *"It [low wage labour] helps to sustain low-skilled, low productivity and labour intensive industries. These industries in turn can afford to pay only low wages which in turn, cause them to depend on more imported labour to keep their wage costs down."*[49]

On the link between imported labour and persistently low wages in some sectors, the government's stance has hardly been consistent in recent years:

- In 2006, Minister in the Prime Minister's office and then-Deputy Secretary General of NTUC[50] (now Secretary General) Lim Swee Say said that low-skilled foreign workers kept wages low in certain sectors.[51]

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42 MTI, *The Strategic Economic Plan*, 1991, p4.
43 Singapore Department of Statistics, "Time Series on Population (Mid-Year Estimates)".
44 MTI, *The Strategic Economic Plan*, 1991, p48.
45 Even before independence, Singapore had started to use tax and fiscal incentives to attract foreign investments into Singapore. This practice continues today.
46 MTI, *The Strategic Economic Plan*, 1991, pp105-106.
47 Parliament of Singapore, "Annual Budget Statement", February 25, 2013.
48 Subsequently Prime Minister.
49 "Cheap labour 'shake out'", *The Straits Times*, June 9, 1979. See **Part 1**, p11.
50 National Trades Union Congress, the sole national trade union centre in Singapore.
51 "Foreign workers keep wages low? Not totally true", *The Straits Times*, Oct 6, 2006.

- Also in 2006, then-Minister for Manpower Dr Ng Eng Hen said that it was only "partially true" that foreign workers kept wages down, and that the reality is that foreigners are needed to grow the economy.[52]

- In 2014, MTI refuted an opinion piece in the English daily suggesting that foreign workers suppressed local wages: *"Dr Tan [Kong Yam]'s suggestion that the inflow of foreign workers suppressed local wages before 2008 is not borne out by the facts… Local wage trends have hence been shaped by employers' demand for labour, and not just the supply of foreign workers. Higher demand led to higher local wages, even when more foreign workers were employed."*[53]

- Also in 2014, the Ministry of Manpower (MOM) said that the recently tightened foreign worker constraints, contributing to a tight labour market, would drive wages up for Singaporeans for the remainder of the year.[54]

Nevertheless, as part of the broader effort to boost labour productivity, the government has legislated what are effectively sector-specific minimum wages (officially termed Progressive Wage Model—PWM[55]) so that businesses would be forced to make more productive use of labour by paying more for it. In 2014, The National Environment Agency (NEA) introduced legislation that would require cleaning firms to obtain a mandatory license. As part of the licensing requirement, the cleaning firms would need to pay their cleaners a basic salary (i.e. before overtime) of at least $1,000 a month (the median was $850).[56] Also in 2014, the compulsory license for the security sector was updated to require licensee companies to pay their officers at least $1,100 a month (the median was $800).[57] Some low-wage workers in the aviation and aerospace industry are also expected to come under the PWM by end-2015.[58] As can be seen from these examples, the legislated minimum wages are above the typical wages in these sectors, which could be an indicator that a significant proportion of such workers were underpaid.

The 2013 Population White Paper projected that Singapore was unlikely to stall the increase of its dependence on imported foreign labour, and that foreigners would eventually reach 2.1 to 2.9 million out of a projected population of 6.5 to 6.9 million in 2030.[59]

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[52] Ibid.
[53] "Local wages fell when economy was weak", *The Straits Times*, Aug 16, 2014.
[54] "Tight labour market likely to drive up wages: MOM", *TODAY*, Sep 16, 2014.
[55] PWM also specifies a 'wage ladder' detailing the responsibilities, the training required, and minimum pay for each job in the ladder.
[56] "Easier for cleaning firms to send staff for training: Balakrishnan", *TODAY*, May 7, 2014. Companies have until September 2015 to comply.
[57] "Security guards to get better salary, training", *TODAY*, Oct 29, 2014. Companies have until September 2016 to comply.
[58] "Progressive wage model plans for aviation industry", *The Straits Times*, May 8, 2014.
[59] NPTD, *Population White Paper*, January 2013, pp26-29, pp36-49.

Going further, some have argued that Singapore needed to plan for a much larger population. Ex-CEO of the Housing Development Board (HDB) Liu Thai Ker suggested in 2014 that the country should plan in advance for a "sustainable" population of 10 million because "we cannot curb population growth after 2030 [of the 2013 Population White Paper]".[60]

To some extent, Singapore's growing dependence on foreign labour is unavoidable given its low and declining birth rate (1.29 in 2012[61]) if the country wants to avoid a population decline.

***The two-tier economy***

Because of Singapore's small and open economy, Singapore always had a competitive export-oriented sector dominated by foreign companies and a less competitive domestically oriented sector comprised mainly of smaller local companies. In 1961, the UN study mission led by Dutch economist Dr Albert Winsemius reported:

> *"Singapore's manufacturing industry can be divided into two groups. On one side, are a limited number of usually well managed factories, for the greater part subsidiaries of foreign firms. On the other side, there exist many small establishments characterized by low productivity."*[62]

The under-performing domestically-oriented sector is problematic because it uses a larger share of labour than its contribution to GDP, thus lowering overall labour productivity. This did not seem to be a problem that repeated government interventions could solve, as was highlighted by multiple government reports:

- MTI, 1991: *"This domestic sector has unfortunately not benefitted significantly from the influx of foreign investments, which bring with it the latest technology and management methods. Upgrading of this sector has been substantially below that of the internationally-oriented sector where the pressure of a much more competitive environment forces companies to upgrade or suffer the consequences."*[63]

- Singapore Productivity and Standards Board (PSB), 1999: *"Although the agricultural sector in Singapore is insignificant, the structure of the economy is still dualistic. The sectors which are exposed to international competition—manufacturing, financial & business services, and transport & communications—are much more productive than those primarily serving the domestic marketplace, i.e. construction, and community, social & personal services."* The report also analysed data showing that local small and medium enterprises (SMEs) lagged the productivity of both foreign MNCs and foreign

[60] "Singapore should plan for population of 10m", *The Business Times*, Aug 1 Friday.
[61] Singapore Department of Statistics, "Key Demographic Indicators 2013". A birth rate per woman of 2.1 is generally accepted as the replacement rate whereby the population of a country would be stable.
[62] United Nations, *A Proposed Industrialization Programme for the State of Singapore*, June 13, 1961, p33.
[63] MTI, *The Strategic Economic Plan*, 1991, p(i)

SMEs in manufacturing, commerce, and services, with SME productivity in manufacturing less than one-third that of foreign MNCs.[64]

- MTI, 2003: *"Fundamentally, the new environment requires an innovative culture among these smaller domestic enterprises. Many of them lag far behind in terms of new ways of doing business."*[65]

A more recent analysis also confirmed that domestically-oriented sectors were hurting the performance of the overall economy. This MTI analysis of the causes of low overall labour productivity growth since 2010 (0.2 per cent per annum from 2010 to 2013) showed that while the productivity of export-oriented sectors grew 2.1 per cent per year from 2010 to 2013, the productivity of domestically-oriented sectors actually *declined* by 0.3 per cent per year over the same period.[66]

***Entrenched business interests***

Because migrant low wage labour had been relatively easy to hire in Singapore for decades, it has become ingrained as part of the business model for some companies.

After the 2013 Population White Paper was released, nine national chambers of commerce representing companies with billions of dollars of investments in Singapore wrote an open letter to Minister for Manpower Tan Chuan Jin to protest the curbs on foreign labour. The open letter was endorsed by several national chambers including the American, the British, and the European. Earlier in December 2012, the Singapore Business Federation (SBF) had also published a position paper that said that restrictive labour policies could lead to higher business costs that would be passed on to consumers and other businesses.[67]

In 2014, when union representatives called for the wage threshold below which workers would receive a 6% increase recommended by the NWC to be raised to $1,200 from the $1,000 of the previous year, the Singapore National Employers Federation (SNEF) objected and issued a statement that: "If their [employers'] wage cost increases continue to outstrip productivity growth, they may lose their competitiveness and their workers may also be affected."[68]

In addition, there have emerged in Singapore some companies whose business models are built around exploiting low wage foreign labour, especially in the construction sector. When the Ministry of Manpower (MOM) prosecuted 26 construction firms from November 2008 to December 2009 for falsely inflating their foreign workers entitlement quotas by listing

[64] Singapore Productivity and Standards Board, *ProAct 21: From perfecting the known to imperfectly seizing the unknown*, 1999, pp98-100.
[65] MTI, *Report of the Economic Review Committee*, February 2003, p131.
[66] MTI, "A sectoral examination of Singapore's productivity growth", *Economic Survey of Singapore Second Quarter 2014*, Aug 12, 2014, p10.
[67] "9 foreign chambers oppose labour curbs", *The Straits Times*, Feb 5, 2013.
[68] "Unionists repeat call to raise wage threshold for salary increments", *TODAY*, May 31, 2014.

'phantom' or fake local workers as employees to meet foreign-to-local ratio requirements, only 9 of these 26 firms were found to have deployed their foreign workers for genuine work that they had, the others having sold their quota to other companies or hired their workers out to other firms (both illegal).[69] Principal contractors for construction projects have also been known to inflate the value of their projects in order to increase their foreign worker entitlement so that they could illegally re-deploy the surplus labour.[70] NGOs for migrant workers' rights have documented cases where companies have allegedly underpaid workers for both legal working hours and excessive and illegal overtime, resulting in situations where workers were paid as little as S$1.50 per hour.[71]

**A mid-term report**

With the halfway mark of the 10-year economic restructuring plan fast approaching, the growth in labour productivity has so far lagged the 2 to 3 per cent per annum target set by the ESC, averaging just 0.2 per cent per year from 2010 to 2013.[72] Moreover, some broad-based government incentives meant to promote productivity-enhancing investments have attracted significant amounts of fraud (e.g. through inflated expenditures) because of their large cash reimbursements.[73]

Despite these difficulties, the government seemed determined to continue with efforts to raise labour productivity. To measure productivity gains that may not be captured in the broad productivity statistics (defined by value-added per worker), the Ministry of Trade and Industry embarked on developing sector-specific indicators in consultation with various trade associations (indicators such as square metres constructed per man-day for the construction and revenue per square foot for retail).[74] To combat fraudulent claims under the productivity incentives, the tax authority set up a 9-member taskforce to audit suspicious claims.[75]

Reducing the economy's reliance on foreign labour will not come without costs. Not importing labour liberally to support economic growth means that the country's GDP will grow slower than it otherwise can. When some economists called for manpower policies to be relaxed in light of the worsening second quarter GDP figures for 2014, MTI responded that Singapore "must… press on with restructuring in these sectors [with lower labour productivity]."[76] Subsequently, when the International Monetary Fund (IMF) issued a warning that the less rapid rate of growth in foreign labour could hurt Singapore's potential growth and competitiveness, Senior Minister of State in the Prime Minister's Office and Deputy Secretary General of NTUC Heng Chee How

[69] Ong Yanchun, "Singapore's Phantom Workers", *Journal of Contemporary Asia*, Vol. 44, No. 3, 2014, pp455-457.
[70] Ibid, p448.
[71] Transient Workers Count Too (TWC2), "Big hole in ground dug with big hole in worker's pay", Oct 24, 2014.
[72] "Is Singapore's competitiveness on the slide?", *The Straits Times*, Oct 28, 2014.
[73] "Govt to take firm action against fraudulent PIC claims: Tharman", *TODAY*, Nov 9, 2013.
[74] "Productivity measures being fine-tuned", *The Straits Times*, Nov 4, 2014.
[75] "Tax Cheats Target PIC Scheme", *The Sunday Times*, Apr 6, 2014.
[76] "MTI replies: Restructuring at a balanced pace", *The Straits Times*, Aug 2, 2014.

said in a speech that a "U-turn" on the more restrictive manpower policy would "erode the incentive for us to invest in upgrading our economy".[77]

[77] "Manpower policies 'should not be relaxed'", *The Straits Times*, Oct 21, 2014.

## Annex 1 – Summary of productivity-related measures introduced in recent years

### Manpower

- National Productivity Fund, 2010:
  - A government fund of S$2 billion to support initiatives for increased labour productivity.
  - For the first five years, inject S$1 billion over 5 years to be given to enterprises in all sectors with a special emphasis placed on sectors where there is a large potential for productivity increase.
  - In 2011, fund doubled to S$2 billion.
  - S$250 million dedicated to raising productivity in construction and helping local contractors develop skills in civil engineering projects, with a target to increase value-added per worker by 20% by 2015.

- National Productivity and Continuing Education Council, 2010
  - Develop a comprehensive system for continuing education and promote close collaboration amongst businesses, workers and unions, and the government.
  - Target to have 50% of the population with a diploma by 2020 (compared to 36% in 2007) by expanding the CET program and aim to train 240,000 people by 2015 from 80,000 in 2010.

- Continuing Education and Training (CET), 2010
  - S$2.5 billion allocated for 2010-2015 to develop Continuing Education and Training (CET) to develop competence in more complex tasks and mastery of skills and expertise in all trades.
  - Strengthen links between Workforce Skills Qualification (WSQ) and skills gained through post- secondary/ tertiary education.
  - Increase capacity and quality of CET for professionals, managers, executives and technicians (PMETs) by 60% by 2015.
  - Ministry of Manpower to introduce umbrella program for PMETs called Skills Training for Excellence Program (STEP).
  - Increase subsidies for Singaporean students completing part time diplomas at polytechnics, CET centres, or universities so that they receive the same percentage cost subsidy as a full time student. An approximate 30,000 students to qualify for these subsidies.
  - Top up Life Long Learning Endowment Fun (LIEF, established in 2002) by S$500 million in 2013, to ensure long-term funding for CET.

- Workfare Training Scheme, 2010
  - Complement WIS (Workfare Income Supplement) with a 3-year programme that will provide employers with 90-95% funding for absentee payroll and course fees to encourage training of workers.

- Develop a structured training program for low skilled workers and the unemployed.
- Provide workers with a cash grant once their training is complete in order to recognize their efforts to up-skill.

- Progressive Wage Model, 2012 (gradually being introduced in more sectors e.g. security, aviation, cleaning)
  - Increase workers' pay in accordance with the upgrading of their skills (e.g. cleaner's wage can rise from S$1000 to S$1400 once they learn how to use motorized equipment).

- Construction Productivity and Capability Fund, 2014
  - S$67 million allocated to help over 1,600 companies adopt new technologies and train workers.

- S$60 million to support manpower and leadership development programs, 2014
  - Employees encouraged to expand their skills and develop cross-functional skills, as well to obtain regional knowledge and experience.

- Raising foreign worker levies, 2010
  - Encourage companies to up-skill their workers and improve labour productivity.
  - Gradually phased in to give companies a clear incentive to upgrade while giving them time to restructure their businesses.
  - From 2010-2012 increase average levies per worker in Manufacturing and Services by S$100 and S$130 in Construction.
  - Further raise levies in Manufacturing to S$160, in Services to S$180 and in Construction to S$200 by 2013.
  - Introduce levy for S Pass holders to S$300- 450 by 2013 and raise minimum monthly salary required to qualify for S Passes from S$2000 to S$2200 from 2013.
  - Introduce tiered system so that older and more qualified workers need a higher salary in order to be eligible for S Passes.
  - From 2013, tightened eligibility requirements for Employment Pass holders.

- U Flex Family-Friendly Grant, 2014
  - Government to allocate S$500,000 in 2014 towards helping companies to implement family-friendly and flexible working arrangements so that housewives (and other potential part timers) and older people to rejoin the workforce.

**Innovation**

- Committed S$16 billion to R&D from 2011-2015, set aside S$735 million in scholarships and fellowships to attract new talent and introduce greater competition- based funding to encourage innovation.

- SPRING- ICV 2012
    - Innovation and Capability Voucher (ICV) programme provides eligible SMEs with a S$5,000 voucher to upgrade and strengthen business operations. 800 SMEs benefitted from 2012 to 2014.

- Initiatives for Industry Wide Collaboration, 2013
    - Support Collaborative Industry Projects where firms can share industry-specific solutions to productivity challenges.
    - Foster SME collaborations with larger firms to allow for co-innovation.

**Tax**

- Growth through mergers and acquisitions, 2009
    - Encourage the continuous flow of start ups and new entrants into the economy and allow the most efficient and competitive players to grow organically or through mergers and acquisitions.
    - Offset a portion of the acquisition costs for five years with a one-off tax allowance scheme that equals to 5% of the value of the acquisition capped at S$5 million a year.

- Productivity and Innovation Credit (PIC), 2010
    - Allow companies to claim a 250% (increased to 400% in 2011) tax deduction if they invest in R&D (including R&D expenditure abroad from 2011), Automation, Retraining, Acquisition and Registration of Intellectual Property, or Design Activities with tax deductions capped at S$300,000 (increased to S$400,000 in 2011)
    - Allow businesses to convert up to $100,000 of PIC credit on their first investment into a cash grant of up to $21,000 (increased to S$30,000 in 2011) to allow business with small taxable incomes to grow by upgrading and investing in technology.
    - In 2013, a PIC Bonus was introduced where businesses that spend more than S$5000 on expenditure that is covered under PIC, will receive a dollar- for- dollar matching cash bonus. The bonus will be up to S$15,000 from 2013-2015.

- Land Intensification Allowance, 2010 (to replace outdated Industrial Building Allowance from the 1940s)
    - Give tax allowances to businesses with large land take and low Gross Plot to support land productivity and encourage land intensification.

- Corporate Income Tax Rebate and SME Cash Grant, 2011
  - 20% corporate income tax rebate, capped at S$10, 000 (increased to a 30% rebate up to S$30 000 per year in 2013).

**Wages**

- Workfare Income Supplement (introduced 2007, enhanced 2010)
  - Qualified older low-wage workers to encourage them to stay in the workforce.
  - Increase payouts from S$150 to S$400 with more going to older workers.
  - Extended eligibility to people earning S$1,700 a month, up from S$1,500, to ensure as workers upgrade skills, WIS benefits do not decrease.
  - Cost S$100 million per year, target to benefit 400 000 low wage workersq].

- Wage Credit Scheme, 2013
  - A government subsidy that co-funds 40% of pay increases given to Singaporeans earning a gross monthly wage of S$4000 and below, to help companies raise productivity by retaining good workers; To cost S$3.6 billion over three years.