

STRUCTURAL POLICY COUNTRY NOTES Singapore



This Country Note is an extract from the *Economic Outlook for Southeast Asia, China and India 2014: Beyond the Middle-Income Trap*, <http://dx.doi.org/10.1787/saeo-2014-en>.

Singapore

A. Medium-term economic outlook (Forecast, 2014-18 average)

GDP growth (percentage change):	3.3
Current account balance (% of GDP):	17.9
Fiscal balance:	3.9

B. Medium-term plan

Period:	2010-20
Theme:	Highly skilled people, innovative economy, distinctive global city

C. Basic data (in 2012)

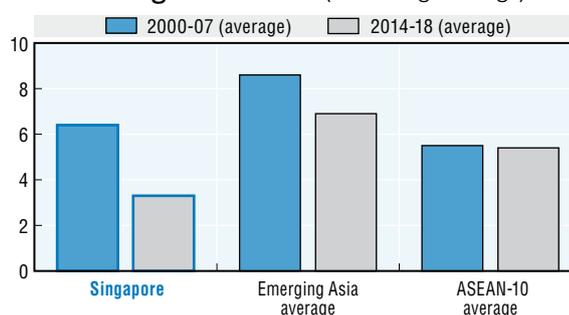
Total population:	5.4 million*
Population of Singapore	3.8 million (in 2010)
GDP per capita at PPP:	51 161 (current USD)**

Note: * Total population data for 2012 are estimates.

** IMF estimate

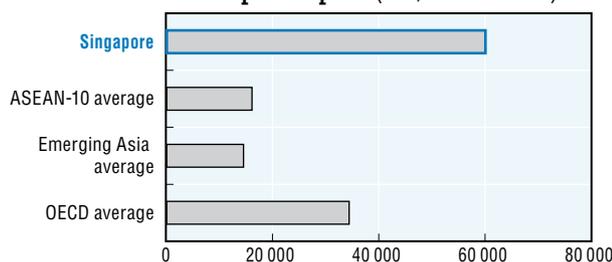
Sources: OECD Development Centre,
national sources and IMF.

GDP growth rates (Percentage change)



Source: OECD Development Centre, MPF-2014.

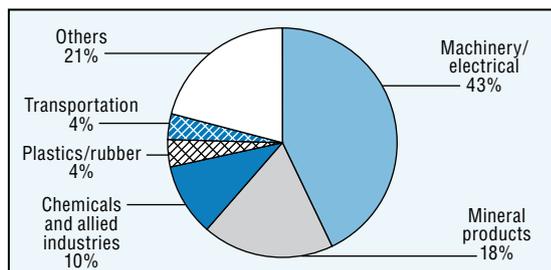
GDP per capita (PPP, current USD)



Source: IMF.

Composition of exports, 2012

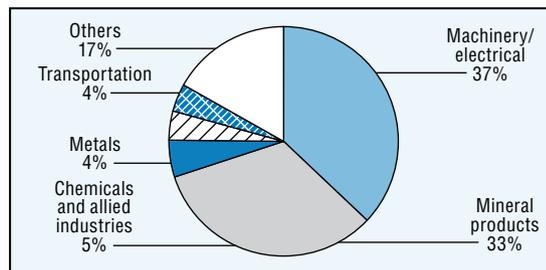
Percentage of total exports



Source: Trademap.

Composition of imports, 2012

Percentage of total imports



Source: Trademap.

Singapore's priorities going towards 2020 are boosting skills in every job, deepening corporate capabilities to seize opportunities in Asia, and making Singapore a distinctive global city and endearing home.

To boost skills in every job, especially with an ageing population, the Singapore government has strengthened its adult learning provisions. The rationale behind lifelong learning is a pragmatic one in that there are economic benefits – higher wages, employment and labour productivity; more importantly, it also increases labour market flexibility. In fact, across the developed world, policies are increasingly being focused on vocational lifelong learning, which is seen as a driver of economic growth and competitiveness.

The Singapore government recognises this fact, and it has put in efforts to enhancing the productivity of SMEs. In Singapore, a multi-agency assistance provision offers SMEs a variety of schemes, ranging from tax cuts to loans and grants to help defray the costs of productivity improvements in areas such as R&D, automation, and capacity building.

A medium-term challenge facing Singapore in its efforts to make the city state a distinctive global city and an endearing home is the scarcity of land. There is competition for space, both for housing and for industrial and commercial uses, and property prices are high. There have been some concerns associated with congestion on the roads and with public transport. To help ease these concerns, it is useful to incorporate a green growth strategy.

Singapore's medium-term policy challenges and responses

- Optimise land use and allocation by incorporating a green growth strategy
- Raise SME productivity through well co-ordinated assistance programmes
- Strengthen life-long learning to increase labour market flexibility

POLICY FOCUS

Optimise land use and allocation by incorporating a green growth strategy

One of the medium-term challenges facing land-scarce Singapore if it is to support a growing population is how to allocate land optimally for different usages. There is a need to balance competing space demands for housing, transportation infrastructure, industrial and commercial uses, parks, reservoirs and community areas, while ensuring a liveable environment for all. The country's liberal foreign worker inflow policy of recent years has led to a situation where the existing housing and transport infrastructure has been unable to cope adequately with the large rise in the overall population. The result has been an increase in the negative externalities typically associated with urbanisation, such as congestion on the roads and high property prices.

One way to help ease such pressure would be closer co-ordination between planning agencies in order to pre-empt issues of inadequately met land demand before they arise. In keeping with its strategy of sustainable development, the government could also pursue green growth more proactively.

Singapore's land scarcity makes planning crucial

In 2013, to support its population projections, the government published a strategy document, the *Infrastructure Land Use Plan*, which outlines Singapore's land use and allocation strategy to 2030. It projects an increase in supply from 71 000 ha in 2010 to 76 600 ha by 2030, with the construction and development of housing and transport infrastructure being ramped up to offset the current mismatch in supply and demand (Table 2.8.1).

Table 2.8.1. Infrastructure Land Use Plan: Singapore's land requirements

Land use	Planned land supply (ha) 2030	New developments planned
Housing	13 000 (17%)	New housing estates in Bidadari, Tampines North, Tengah, former Bukit Turf Club, Kallang Riverside, Keppel and Bukit Brown; further development of Punggol
Industry and commerce	12 800 (17%)	New manufacturing areas at Woodlands, Sengkang West, Seletar, Lorong Halus, Pasir Ris, and Tuas Expand commercial areas at Jurong Lake District, North Coast Innovation Corridor, One-North, Paya Lebar Central, Southern Waterfront City
Parks and nature reserves	7 250 (9%)	More parks and park connectors, e.g. Jurong Lake Park, Coney Island Park New nature reserves at Jalan Gemla, and Beting Bronok & Pulau Unum
Community, institution and recreation facilities	5 500 (7%)	Increase in childcare facilities, and integrated hospitals
Utilities (e.g. power, water treatment plants)	2 600 (3%)	
Reservoirs	3 700 (5%)	Improve the attractiveness of Sungei Ulu Pandan and Rochor Canal
Land transport infrastructure	9 700 (13%)	More rail lines, e.g. Downtown Line, Thomson Line, Eastern Region Line, Tuas West Extension, North-South Extension, etc.
Ports and airports	4 400 (6%)	New low-cost-carrier airport terminal New transshipment port at Tuas, Pasir Panjang port expansion
Defence requirements	14 800 (19%)	
Others	2 800 (4%)	
Total	76 600 (100%)	

Source: Ministry of National Development (2013) *Infrastructure Land Use Plan*.

Optimise industrial, commercial and residential land use

As well as maximising land capacity through reclamation, the government also intends to pursue its focus on optimising the use of existing land. It is repurposing low intensity sites like old industrial facilities and golf courses to more productive ends, and consolidating activities that require space – e.g. military training, golf, and farming – so as to free up land for other usages. The government's recently launched Land and Liveability National Innovation Challenge seeks to foster and support research into ways of making land usage more cost-effective while keeping Singapore liveable.

The government believes that land use can be further optimised by intensifying new development projects. In manufacturing, different needs can be met by clustering shared industrial facilities in multi-stacked and plug-and-play factories. Efforts are also afoot to expand space underground. The Jurong Rock Caverns, for example, were hollowed out industrially as an oil storage facility.

The government is also offering further incentives to business owners to come up with solutions for maximising land productivity. In 2010, it introduced the Land Intensification Allowance scheme that gives businesses in nine manufacturing sectors tax allowances on their building costs if they meet or exceed the gross plot ratio¹ benchmarks for their specific sectors.²

The intensification of property development is also to be seen in residential and commercial areas. New real estate projects are building higher-density housing to minimise the space required. One example is the Pinnacle@Duxton residential complex, completed in 2010, consisting of seven connected 50-storey towers that boast a total of 1 848 units. The average public housing unit has also shrunk in size over the years to address land scarcity.

As for commercial properties, new growth poles – such as the Jurong Lake District – are being built away from central business districts in order to reduce congestion and provide employment opportunities and amenities closer to homes.

Close co-ordination among planning agencies

Despite planners' efforts to optimise the use and allocation of land, the demand for homes, transport infrastructure, and public amenities is tight as infrastructure takes time to build up. As a result, public dissatisfaction has risen alongside traffic congestion of public transportation system during peak hours.

Such negative externalities could affect Singapore's competitiveness in the long run. High land and housing prices may affect the decision of companies to relocate in or do business with Singapore, while local firms may have trouble recruiting highly qualified workers.

Recognising this, the 2013 Land Use Plan outlines the strategies to ensure that Singaporeans will continue to enjoy a high quality living environment and for Singapore to remain as one of the best cities in the world to live in. There will be greater co-ordination between planning agencies to plan ahead and invest in infrastructure in a timely manner. The government will also invest in research, and explore and support innovative urban solutions which promote liveability.

Make green growth more proactive

In recent years, Singapore has recognised the importance of growth in a sustainable development context. Resource efficiency and improved environmental quality are two of the key priorities in its long-term integrated land use planning framework. While it has put in place funding to support green innovation technologies and designed standards in energy efficiency, the process has been more facilitative than proactive.

It may be useful for Singapore to incorporate a green growth strategy within its sustainable development framework. This would entail an operational policy agenda to help achieve concrete, measurable progress in green growth. Many OECD countries have adopted mechanisms to change mindsets and practices as part of their green growth strategies for sustainable development. Such mechanisms may be taxes and tradeable permit systems to control pollutant behaviour or subsidies to incentivise more environmentally sound products and manufacturing. One example comes from Germany, where the government introduced electricity taxes and subsidies for the use of renewable energy and energy technologies as part of its environmental fiscal reform measures over the period 1999-2005.

POLICY FOCUS

Raise SME productivity through well co-ordinated assistance programmes

Another medium-term challenge for Singapore is to help its businesses restructure and move up the value chain. The white paper on population (*A Sustainable Population for a Dynamic Singapore*) highlights how crucial it is for small and medium-sized enterprises (SMEs) – which account for more than 50% of economic output and 70% of employment – to place greater emphasis on productivity improvements. Doing so would help offset infrastructure constraints and the slowdown in the workforce growth rate, while ensuring that Singaporeans continue to enjoy access to better jobs, higher wages, and a higher standard of living. Although the government runs numerous support programmes to help SMEs develop their capabilities, it could do more to raise their awareness of the availability and value of such schemes. They should also incorporate an evaluation process that allows SMEs to assess the productivity benefits they bring.

Government is committed to help SMEs be more productive

Enhancing productivity in SMEs is a global theme. Globalisation compels firms to rely increasingly on the assets they create themselves, with the keys to success being building human capital and encouraging workers and unions to become actors in productivity (OECD, 2001). In Singapore, the National Productivity and Continuing Education Council oversees the productivity effort. The Council has invested SGD 2 billion (Singapore dollars) in a National Productivity Fund to champion initiatives in productivity and continuing education over the next ten years. The population white paper hopes that Singapore's productivity growth will be 2% to 3% between 2010 and 2020, but believes it will be between 1% and 2% for the 2020-30 period.

Broadly speaking, the government is committed to assist businesses in improving their innovation capacity and expertise through:

- sector-specific productivity improvement roadmaps
- stronger cross-sector support capacity.

The government has built a multi-agency assistance provision that offers SMEs a variety of schemes to enhance productivity, innovation and capability upgrading. They range from tax cuts to loans and grants (Table 2.8.2) to help defray the costs of productivity improvements in areas such as R&D, automation, and capacity building. As of October 2012, the National Productivity Fund had disbursed almost one-half of its endowment (about SGD 950 million), with 5 700 SMEs benefitting from assistance programmes. These include schemes to support capacity building and to help companies develop their business internationally.

Table 2.8.2. Assistance schemes for SMEs in Singapore to enhance productivity, innovation and capability upgrading

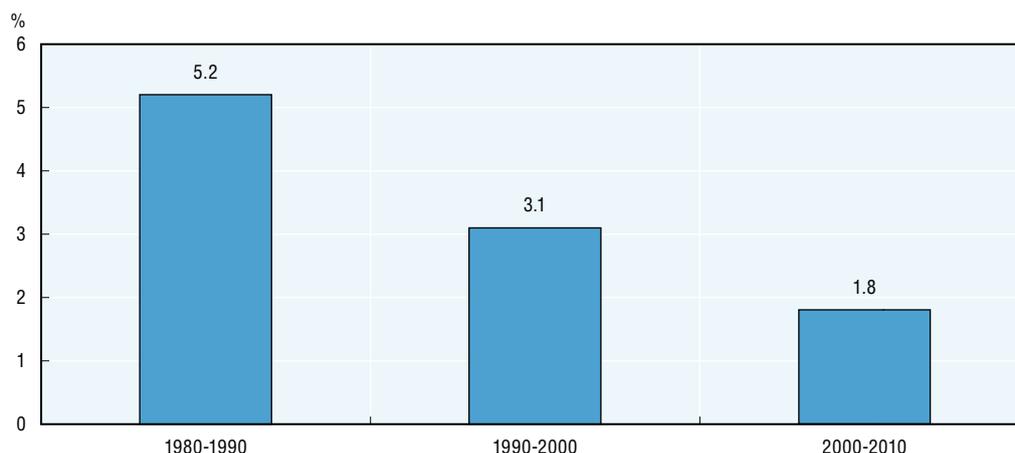
Beneficiary	Programmes
Voucher	SGD 5 000 <i>Innovation & Capability Voucher (SPRING)</i> to defray costs when engaging approved consultants and service providers, capped at SGD 15 000 over three years from 2013-15
Tax incentive	<i>Productivity and Innovation Credit (IRAS)</i> – 400% tax deduction of up to SGD 400 000 and/or 60% cash payout of up to SGD 100 000 expenses in productivity improvements and innovation
Grant	<i>Capability Development Grant</i> supports up to 70% of cost of productivity improvements and capability development <i>Land Productivity Grant (Spring)</i> to help companies who intensify land use in Singapore <i>Enterprise Training Support (WDA)</i> to assist with holistic HR and training support packages <i>WorkPro (WDA)</i>
Loan	<i>Micro-loan Programme</i> that offers loans of up to SGD 100 000 for Singapore SMEs with ten or fewer employees <i>Local Enterprise Finance Scheme</i> offers loans up to SGD 15 million for all locally owned SMEs
Collaboration with industry players	<i>Collaborative Industry Projects (SPRING)</i> in six priority sectors to address sector-specific productivity challenges <i>Technology Adoption Programme (A*STAR)</i> to help link companies' technology needs to solution providers, with pilot in six sectors in July 2013 <i>SME Talent Programme</i> to help SMEs recruit local talent from ITEs and Polytechnics over next five years

Sources: Singapore Workforce Development Agency (2011), 2011 *Survey Findings on the Awareness and Adoption of WSQ and the Outcomes of WSQ Training on Employers and Workers*, Singapore; Spring Singapore; EnterpriseOne.

SMEs are gradually taking up the productivity drive

Despite the wide range of assistance schemes available, some small businesses have not embraced the productivity challenge. Partly because of Singapore's liberal foreign worker policy of the last few years, some SMEs have relied on foreign workers, which has fuelled employment rather than productivity growth. From 2000 to 2010, productivity growth was 1.8% *per annum* compared to 3.1% for the period 1990-2000 (Figure 2.8.1).³ Although the figure was lower than other ASEAN countries, it was higher than other advanced economies in the OECD countries' 1.2% for the same period (Figure 2.8.2).

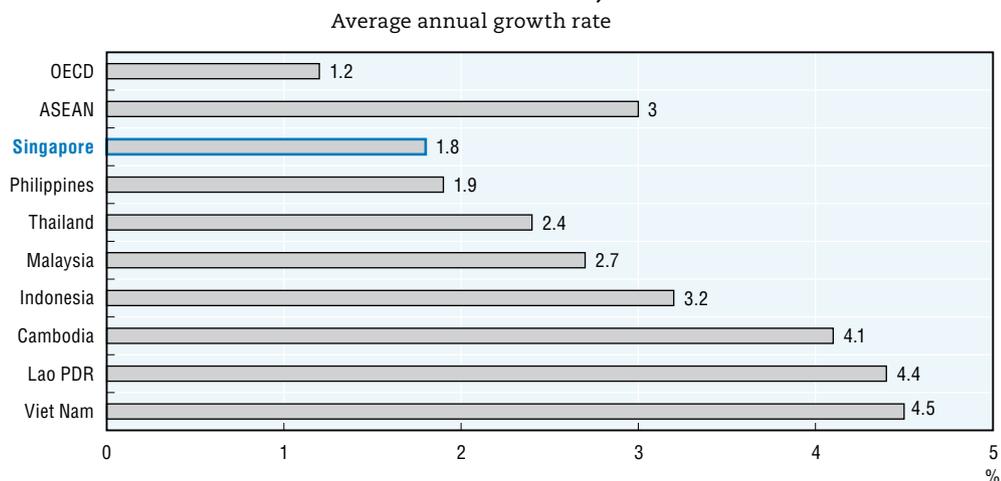
Figure 2.8.1. Productivity growth rates in Singapore, 1980-2010
Year-on-year percentage growth



Source: Singapore Department of Statistics.

StatLink <http://dx.doi.org/10.1787/888932938365>

Figure 2.8.2. Comparison of labour productivity growth for Singapore and other selected countries, 2000-10



Source: APO (2012), APO Productivity Databook 2012, Asian Productivity Organization, Tokyo; OECD.

StatLink  <http://dx.doi.org/10.1787/888932938384>

Raise SMEs' awareness of assistance

Although many assistance schemes are available, some SMEs may not know that. Others may have neither the resources nor the inclination to search for the specific type of support for which they can apply. To this end, the government is simplifying SPRING Singapore's assistance schemes for SMEs and developing existing Enterprise Development Centres (EDCs) into one-stop, integrated SME Centres. The government also recognises that more can be done to reach out to the SMEs and help them find ways to utilise the various productivity enhancing schemes. Indeed, a new government-led working group has been formed to lead and co-ordinate efforts to assist the SMEs in overcoming the challenges they face in restructuring and raising productivity.

The authorities should also further improve the effectiveness of schemes through evaluation mechanisms that would properly assess whether they are beneficial to particular SMEs. Many are of limited duration and are designed to support SMEs in building their business capacity in the short term. SMEs that are unable to increase their productivity should be allowed to exit or consolidate, which would lead to gains at industry level. In this regard, the newly formed work group by the government to lead and co-ordinate efforts to raise awareness of these productivity-enhancing schemes and to assist the SMEs cope with difficulties faced in economic restructuring and raise productivity is a step in the right direction

Another way of boosting SMEs' productivity is to design schemes that would assist them more effectively in accelerating the process of internationalising their business in global markets. Because the domestic market is small, Singaporean SMEs should be encouraged to venture abroad to secure more business opportunities. Those that do so will inevitably have to streamline their processes and become more productive to hold their own against international competition.

Over the years, the Singapore government has provided extensive support to SMEs to upgrade their capabilities. It already supports the internationalisation of SMEs through loans, grants, tax incentives and equity financing administered mainly by

two government agencies – International Enterprise Singapore and SPRING Singapore. SMEs can also tap into the new Market Readiness Assistance Grant, which SMEs with international growth plans may use to seek advice from pre-approved consultants in areas such as market assessment.

To further assist SMEs doing business abroad, the government has also introduced enhanced assistance programmes to help SMEs internationalise as well as promote collaboration between SMEs and larger enterprises through the enhanced Partnerships for Capability Transformation (PACT) scheme. However, the government should consider leveraging existing programmes to partner with non-governmental organisations (OECD-APEC joint survey). Partnerships should encourage large local companies to work with less experienced SMEs and use them as subcontractors or suppliers for overseas projects, for example, in order to give them footholds in foreign markets.

Raise SMEs' profiles as attractive places to work

Although Singapore's SMEs employ a majority of the country's workforce, many young graduates entering the labour market set their sights on established domestic firms and multinational companies for the mobility opportunities and depth of learning that they offer. To enable SMEs to attract more capable young talent, there should be more and closer collaboration between SMEs and tertiary institutions in offering internships and job attachments. That is precisely what the new SME Talent Programme attempts to do.

It is designed to enable SMEs to attract and recruit able students early from local institutes of technical education and polytechnics by sponsoring so-called "study awards" that cover students' fees and guarantee them a two-year job upon graduation. There is certainly scope to extend this scheme to students from local universities should it prove successful. As a final thought, SMEs would do well to design more well-rounded positions that offer wider, more attractive ranges of skill that local graduates could learn.

POLICY FOCUS

Strengthen lifelong learning to increase labour market flexibility

With its ageing population, a key medium-term priority for Singapore is to support lifelong personal development as a means to enhance workers' competitive advantage and sustain their employability. The 2013 white paper on population – *A Sustainable Population for a Dynamic Singapore* – noted that in a rapidly changing business environment, Singaporeans need to constantly upgrade and refresh their knowledge and expertise to cope with changing job demands. Singapore actually has a wide range of government co-financed training programmes in place to support adult learning. Their delivery and quality control, however, require strengthening. In addition, policies should be directed at changing workplace norms and practices, particularly the employment of older workers.

Government strengthens adult learning provision

Many countries offer their workforces a wide range of non-formal adult learning resources.⁴ Across the OECD, policies have been increasingly focusing on vocational lifelong learning, seen as a driver of economic growth and competitiveness (OECD, 2000). In Singapore, non-formal adult learning measures are co-ordinated by public bodies such as the Workforce Development Agency (WDA), SPRING Singapore, the Institute of Adult

Learning and the Council for Private Education. Under the Continuing Education and Training (CET) Masterplan (2008), the government aims to partner with these agencies to establish a high-quality, sustainable CET infrastructure that will support lifelong learning and skills upgrading in the workforce.

Some training schemes are tailored to groups of workers, such as those who are older, low-skilled and particularly vulnerable to displacement if they fail to upgrade or pick up new skills. The government heavily subsidises training, which is geared towards improving workers' abilities to meet sectoral needs. The Workforce Training Support (WTS) scheme, for example, encourages low-wage workers to attend training courses to upgrade their skills and employability. The government funds up to 95% of accredited course fees and absentee payrolls. Workers also receive a monetary incentive when they commit to attending a training course and receive further additional income through the Workfare Income Supplement (WIS) as they continue to be employed. Since the WTS was introduced in July 2010, more than 90 000 low-wage workers have undergone training to improve their skills and employability.

Table 2.8.3. Non-formal adult learning assistance schemes in Singapore

Areas targeted	Programmes
Low-wage and mature workers	WTS complemented by WIS (mentioned above)
Capacity-building	<i>Productivity Initiatives in Services & Manufacturing (PRISM)</i> offer cross-sectoral and industry-specific verticals for services and manufacturing personnel <i>Skills Training for Excellence Programme (STEP)</i> for professionals, managers, executives and technicians offering industry and occupational-specific skills, "horizontal" skills such as business management and human resource
Back-to-work	<i>WorkPro</i> offers job search assistance for mature and/or back-to-work locals, fully funded job-preparation workshops to help them get ready for work, and incentives such as a one-time transport allowance and retention bonus to remain at work
During the economic downturn	<i>Skills Programme for Upgrading and Resilience (November 2008-November 2010)</i> offers employers higher course fee support to keep jobs and retrain workers <i>Professional Skills Programme Traineeships (March 2009-March 2010)</i> offered traineeships to participating companies to allow them to gain industry experience and develop national skills base in growth sectors

Source: Singapore Workforce Development Agency.

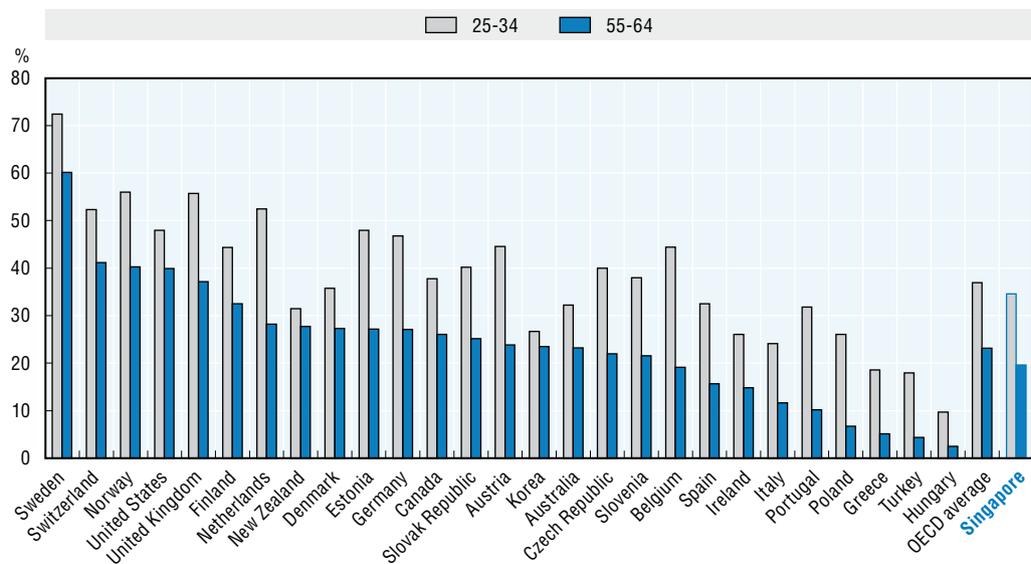
Employers and workers positive about lifelong learning outcomes despite misgivings over income

In 2011 the WDA conducted a survey which found that most companies were positive about sending their employees on accredited training courses under the Workforce Skills Qualification (WSQ) system.⁵ Seventy percent of respondent companies reported that training had led to higher productivity and service quality. Among trainees, 92% said they were able to apply the skills they had learned, while 90% that their work performance had improved.

However, employers and trainees were more divided on other fruits of training. Less than half (49%) thought it benefitted employees' wages, 46% said it did not improve promotion opportunities, and 40% felt it failed to enhance deployment flexibility.

External studies, however, have found that adult education and training have a significant impact on earnings. Heng et al. (2006) argue that in Singapore training is more likely to have a positive effect on pay rises and promotion among workers in low pay brackets. Given that the participation rates in non-formal education among mature (and therefore less skilled) workers are lower in Singapore than the average OECD rate, more should be done to encourage them to engage in non-formal learning (Figure 2.8.3).

Figure 2.8.3. Participation in non-formal education in Singapore and OECD countries, by age group, 2007



Notes: Countries are ranked in descending order of the participation rate of 55-64 year-olds (2007). Year of reference 2005 for Sweden and the United States; year of reference 2006 for Finland, the United Kingdom, New Zealand, Denmark, Italy, Poland and Hungary; year of reference 2008 for the Netherlands, Canada, Czech Republic, Belgium and Ireland; and year of reference 2009 for Switzerland. Singapore: proportion of economically active residents aged 20-39 years and 50-64 years who had engaged in some form of job-related structured training in 2005.

Source: OECD (2012e), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris; Singapore Ministry of Manpower (2006), *Adult Training 2005*, Ministry of Manpower, Singapore.

StatLink <http://dx.doi.org/10.1787/888932938403>

Raise awareness and the profile of adult learning

The sheer number and many types of training programmes can be confusing both for employees and employers. In this respect, the two new CET campuses are valuable in that they provide a one-stop shop service that brings together career advice and services, training and assessment. More could be done to publicise the campuses and the range of services they offer employers and employees alike. It is also important to ensure that CET provisions should be flexible enough to translate into widely recognised qualifications that are useful for lateral movements in employment. However, the experience of other countries points to a drawback of the one-stop shop approach that Singapore should bear in mind – namely, the risk of competition between providers and of conflict between education and labour programmes (OECD, 2005).

The rationale behind lifelong learning in Singapore is a pragmatic one that seeks to emphasise economic benefits – higher wages, employment and labour productivity. Government agencies and employers champion CET as a way for employees to acquire important sector- and industry-specific skills. However, it has non-economic benefits, too, such as greater self-esteem and social interaction, which Singapore could use to entice employees to take up training opportunities.

Another avenue it could explore is that of subsidy schemes – such as individual learning accounts and grants (i.e. allowances and vouchers) – which a number of OECD countries have used effectively to promote adult learning among the low-skilled. The US, for example, has a system of individual training accounts whereby individuals are given vouchers they use to pay for training courses in the occupational skills they need to find gainful employment.

Box 2.8.1. Adult vocational learning : Examples from OECD countries

In OECD countries, adult learning takes many forms – from second-chance programmes to language courses for immigrants and workplace training. Below are some examples of workplace learning schemes generally put in place by the government or employers.

In **Germany**, low-skilled adults can acquire vocational qualifications through a programme of “differentiated pathways to receiving vocational degrees”. Its approach mixes assessment and the recognition of prior learning, as well as a modular system for assessing qualifications. For low-skilled workers without a vocational degree, there are also a number of local projects for “obtaining certified skills while working” (“berufsbegleitende Nachqualifizierung”).

Mexico created its “Learning for Life and Work Model” to deliver adult basic education with a focus on vocational preparation and job requirements.

In the **UK**, Employer Training Pilots enable employees to acquire basic skills and NVQ2-level skills, with the financial incentives of paid time off for the employee and wage subsidies for employers.

In **Austria**, car manufacturer Magna Steyr trains non-skilled workers for skilled positions through a one-year programme which delivers the *Facharbeiter* qualification (equivalent to an apprenticeship programme).

Source: OECD (2005), *Promoting Adult Learning*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264010932-en>.

ANNEX. Population White Paper – Sustainable population for a Dynamic Singapore

Towards inclusive, cohesive growth for all Singaporeans

In January 2013, the Singapore government published a white paper, *A Sustainable Population for a Dynamic Singapore*,⁶ to address the demographic challenges of an ageing workforce and declining birth rate. The paper sets out key medium-term considerations and a roadmap for population policies designed to:

- maintain a strong, cohesive society with a sustainable Singaporean core,
- regulate the number of new Singapore citizens and permanent residents accepted in the country,
- create good jobs and opportunities for Singaporeans,
- build a high-quality living environment,
- strengthen Singaporean identity and society.

To those ends, the white paper advocates a number of measures such as encouraging marriage and parenthood among the young, increasing the productivity of SMEs, and accelerating infrastructure development to cope with a larger population.

Table 2.8.A1. Population White Paper: Key statistics and estimated projections in Singapore, until 2030

	Current available year	2020 (estimated)	2030 (estimated)
Economy			
GDP growth rate (compound annual growth rate [CAGR], %)	6.8 per year (average, 1980-2010)	3.0-5.0 per year (average, 2010-20)	2.0-3.0 per year (average, 2020-30)
Labour productivity growth rate (%)	-2.6 (2012)	2.0–3.0 per year (average, 2010-20)	1.0-2.0 per year (average, 2020-30)
Workforce growth rate (%)	3.3 per year (average, 1980-2010)	1.0-2.0 per year (average, 2010-20)	1.0, per year (average, 2020-30)
Demography			
Resident population (million) (includes citizens and permanent residents)	3.82 (as of June 2012)	4.0-4.1	4.2-4.4
Non-resident population (million)	1.49 (as of June 2012)	1.8-1.9	2.3-2.5
Total population (million)	5.31 (as of June 2012)	5.8-6.0	6.5-6.9
Land and infrastructure			
Planned land supply (ha)	71 000 (2010)		76 600
Rail length (km)	178 (2012)	~280 (by 2021)	~360
Rail density (km/mil pop)	34	47	54
Public housing (housing units)	1.2 million		700 000
SMEs			
Citizens in PMET* jobs	850 000 (50%, 2011)		1 250 000 (67%)
Citizens in non-PMET jobs	850 000 (50%, 2011)		650 000 (33%)
Lifelong learning			
Two new CET campuses	+50 000 trained adults per year		

Note: PMET, defined as Professional, Managerial, Executive and Technical, describes a category of jobs that require a higher level of skills and educational qualifications. CET stands for continuing education and training.

Source: Singapore National Population and Talent Division (2013), *A Sustainable Population for a Dynamic Singapore: Population White Paper*, Singapore National Population and Talent Division, Singapore Government.

Notes

1. Gross plot ratio is the the ratio of a building's total floor area to the size of the plot of land upon which it is built. Other countries use different terms, such as "site ratio", "floor space ratio", or "plot ratio".
2. The nine manufacturing sectors are pharmaceuticals, petrochemicals, petroleum, specialities, other chemicals, semiconductor-wafer fabrication, aerospace, marine and offshore engineering, and solar cell manufacturing.
3. From 2000 to 2010, productivity growth contributed 31.7% to GDP growth, while labour force growth contributed 68.3%. The actual figures are real average GDP growth at 5.6%, productivity growth of 1.8%, and labour force growth of 3.8% (Singapore Department of Statistics).
4. The OECD defines non-formal learning as professional development programmes (outside schools and colleges of the formal education system) that equip workers and professionals with new knowledge and skills.
5. The WSQ system is a national qualification system that trains adult workers and delivers certified, nationally recognised, industry-relevant qualifications.
6. The Population White Paper can be downloaded from the National Population and Talent Division website (www.population.sg/).

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