**May Revision**

**Addressing deflation, fostering inclusive growth**

**Table 1: Key economic data for Singapore**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2013** | **2014** | **2015** | **2016** |
| GDP per capita (current US$) | 56,389 | 56,958 | 54,941 | 55,243 |
| Economic growth rate (% change in real GDP) | 5.1 | 3.9 | 2.2 | 2.4 |
| Inflation rate (CPI, annual change in %) | 2.4 | 1.0 | -0.5 | -0.5 |
| Productivity growth rate (% change) | 0 | -0.9 | -1.5 | -0.5 |
| Budget balance (% of GDP) | 1.3 | 0.1 | -1.2 | -1.2 |
| Life expectancy at birth (years) | 82.4 | 82.6 | 82.9 | 83 |
| Value of SGD (average rate per US$) | 1.251 | 1.267 | 1.375 | 1.382 |
| Gini coefficient before accounting  for government transfers & taxes | 0.463 | 0.464 | 0.463 | 0.458 |
| Gini coefficient after accounting for government transfers & taxes | 0.409 | 0.411 | 0.409 | 0.401 |

Source: Singstat.gov.sg, accessed 17 Aug 2018

**Extract 6: Guarding against deflation in Singapore**

The Monetary Authority of Singapore (MAS) should be ready to adjust its monetary policy further if deflation takes root in the city state, the International Monetary Fund (IMF) said. Consumer prices in Singapore have declined every month since November 2014, the longest slump on record.

Deflation has become a grave concern for economies around the world. While deflation points to deeper structural issues for economies like Japan and Europe, economists say that Singapore has less to worry about as its economy is not suffering from a chronic lack of demand. Singapore's deflationary reading last month was driven by fluctuating COE prices and falling accommodation costs, in addition to lower oil prices. However, the prices of household durables, education, and recreation had been holding up.

Core inflation, that is derived from a consumer basket that excludes the costs of accommodation and private road transport still holds at 1% despite the city-state hitting its 21st month of declines in consumer price index (CPI) 1.

Source: Business Times, 10 May 2016

1*The CPI is calculated using a weighted average of prices for a typical bundle of goods and services purchased by households.*

**Extract 7: Why deflation is bad**

Prices in the eurozone are falling. Figures released on January 7th showed that consumer prices in the year to December fell by 0.2%, marking the return of deflation for the first time since 2009. Weak demand, driven by austerity, debt and a lack of economic growth is dragging down prices. Concerns about deflation traps and downward spirals abound. One common explanation is that in anticipation of falling prices, consumers delay purchases, causing them to fall still further.

Source: The Economist, 7 Jan 2015

**Extract 8: Singapore’s monetary policy**

Most countries, including the United States and China, adopt an interest rate policy where central banks raise or cut interest rates. Singapore is the only major economy in the world to use the exchange rate, guiding the Singapore dollar higher or lower.

The MAS says the exchange rate is the best tool for a small, open economy like Singapore. It is a more effective way to manage inflation, as much of the country's consumer goods are imported. The MAS has effectively given up control of domestic interest rates. Instead, borrowing costs are largely determined by US interest rates and investors' expectations of the future movement of the Singapore dollar.

Source: Straits Times, 13 Oct 2015

**Extract 9: Tapping on the Inclusive Growth Programme**

As part of the Ministry of Manpower’s Lean Enterprise Development Scheme, the Inclusive Growth Programme (IGP) helps businesses develop more efficient processes through automation and re-designing work processes to enhance productivity. Administered by NTUC’s Employment and Employability Institute (e2i), the IGP also benefits workers through gains- sharing by companies. Since its launch in 2010, e2i has partnered industry associations and small medium enterprises (SMEs), with a commitment to impact some 105,000 workers with an average wage increase of 18%.

In line with SkillsFuture, the Ministry of Manpower, together with Workforce Singapore, the Ministry of Education and other economic agencies in government, are developing an integrated system of education and training to provide all Singaporeans with the enhanced opportunities to acquire greater skills proficiency, knowledge and expertise. By enabling a highly-skilled and competitive workforce, it has allowed Singaporeans to secure better jobs, higher incomes and enjoy higher standards of living. With the fast pace of technological advancements and stronger global competition for jobs, skills upgrading and deepening are essential for Singaporeans to maintain a competitive edge.

Source: www.mom.gov.sg website, accessed 3 August 2018

**Extract 10: Five priorities in achieving inclusive growth**

There are ways to implement a fair and progressive fiscal policy to encourage enterprise and innovation without shifting the burden of taxes to the poor or the middle class, said Deputy Prime Minister Tharman Shanmugaratnam. He outlined five priorities in achieving both innovation-driven and inclusive growth.

Tax credits and subsidies for upskilling are another example of a policy that supports equity as well as innovation and growth. It helps workers who face dislocation in the market; it leads to skills accumulation across society; everyone benefits.

A second priority in tax policy concerns property taxes. It is the most efficient tax; that is, the least damaging to income growth. There is in fact more scope in many of our economies to increase taxes on immovable property: land as well as developed real estate.

A third priority is in ensuring fair subsidies for public services, targeted at those who need it most. Healthcare financing is especially the challenge in more mature societies, and those which are getting older. Fair and targeted subsidies are at the heart of ensuring both social equity and sustainable budgets — and if we don’t address this well, we will see taxes go up even more as our societies age.

A fourth priority is to mitigate the regressive feature of consumption taxes (Goods and Services Tax or Value Added Tax). They are efficient taxes, but on their own they hurt the poor more. That’s why in most countries we try to offset their impact on the poor.

Fifth, in the same vein of achieving progressivity in our tax systems, a dollar cap on total personal income tax deductions is a useful reform. We have recently instituted this in Singapore. As the OECD (Organisation for Economic Cooperation and Development) points out, those who get the most benefit from some tax allowances are the rich, and in many countries we need a way to cap total tax deductions so as to preserve the progressivity of income tax.

Source: Today, 25 July 2016

**Questions**

(a)(i) Compare Singapore’s budget balance for 2015-2016 with 2013-2014. [2]

(ii) To what extent can it be concluded from Table 1 that the standard of living in Singapore in 2016 is better than in 2013? [5]

(b)(i) With the help of a diagram, explain why Singapore experienced falling consumer prices in 2015 and 2016. [3]

(ii) Explain whether the data suggests that the “slump” in consumer prices (Extract 6) is likely to continue. [4]

(c) With reference to Extract 6, suggest how it is possible that overall consumer prices fell despite prices of household durables, education, and recreation holding up. [3]

(d)(i) How does the value of the Singapore dollar in 2016 compare to its value in 2013? [1]

(ii) Suppose that deflation takes root in Singapore. Discuss the merits of managing the problem by depreciation, rather than using interest rates. [8]

(e) Discuss the reasons why the Singapore government seeks to achieve innovation-driven and inclusive growth. [7]

(f) Using the extract and/or your own knowledge, discuss the effectiveness of achieving inclusive growth in Singapore through the use of fiscal policy and supply side policies. [12]

[Total: 45]

**Suggested Answers**

**(a)(i) Compare Singapore’s budget balance for 2015-2016 with 2013-2014. [2]**

Singapore’s budget balance was in deficit and the deficit was constant in 2015-2016 whereas the budget balance was in surplus from 2013-2014 and the surplus was decreasing.

**(a)(ii) To what extent can it be concluded from Table 1 that the standard of living in Singapore in 2016 is better than in 2013? [5]**

Standard of living (SOL) consists of both material and non-material aspects. The material aspect refers to the quantity and quality of goods and services available for consumption whereas the non-material aspect refers to the more intangible aspects of life such as amount of leisure time, quality of the environment etc.

**1) Explain why it can be concluded from Table 1 that SOL is better**

Real GDP growth has been positive throughout 2013 to 2016. Assuming that population growth is largely constant and the rate is lower than that of real economic growth, real GDP growth per capita would then also be positive throughout. This suggests that RNY per capita is higher in 2016 than in 2013. With higher purchasing power, the people are able to purchase more goods and services, thus leading to a higher material SOL.

Gini coefficient after government transfers and taxes is lower in 2016 than in 2013, decreasing from 0.409 to 0.401. This implies that inequity has reduced and income distribution has improved. There is more inclusive growth which should allow for higher material SOL. (The income is spread evenly to the people)

Life expectancy at birth, as shown in Table 1, is higher in 2016 compared to 2013. Higher life expectancy may indicate greater access to healthcare services and lower levels of environmental pollution, which indicates higher non-material standard of living.

**2) Explain why it cannot be concluded from Table 1 that SOL is better**

Lack of information on other indicators for non-material SOL (e.g. level of externalities, literacy rates and leisure hours).

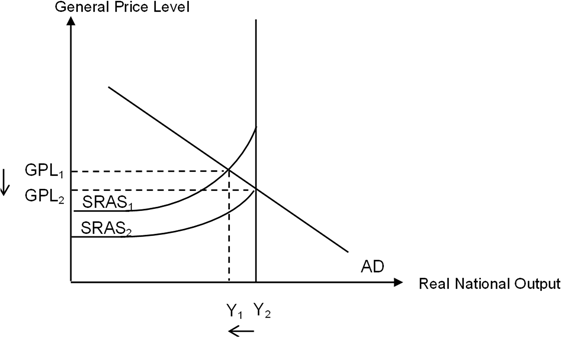
Lack of information such as population growth rate or GDP deflator to accurately determine real GDP per capita for material SOL

Conclusion

Assuming that population growth rate did not outstrip real economic growth rate, the material SOL in Singapore would have improved. Given that it is likely that the non-material SOL in Singapore has also improved, overall SOL in Singapore in 2016 is better than in 2013 to a large extent.

**(b)(i) With the help of a diagram, explain why Singapore experienced falling consumer prices in 2015 and 2016. [3]**

Lower oil prices (Extract 6) 🡪 Fall in COP since oil is a factor of production used across many industries as a main source of energy



Rise in SRAS from SRAS1 to SRAS2 🡪 Fall in GPL from GPL1 to GPL2 🡪 Thus, Singapore experienced falling consumer prices.

**(b)(ii) Explain whether the data suggests that the “slump” in consumer prices (Extract 6) is likely to continue. [4]**

**1) Explain why the “slump” in consumer prices is likely to continue**

Inflation rate was -0.5% for 2015 and 2016. If oil prices, COE prices and accommodation costs continue to fall, the slump in prices will continue.

Furthermore, deflation causes expectations of future prices to fall, leading to a fall in C and therefore, a fall in AD, causing GPL to fall. The fall in GPL can spark another round of expectation of future prices falling, thus causing the slump in prices to continue.

**2) Explain why the “slump” in consumer prices is not likely to continue**

Given that the budget balance was negative from 2015 to 2016, the government may be increasing its expenditure significantly 🡪 overall AD increase 🡪 GPL likely to increase

Given negative productivity growth from 2015-2016, there may be increase in unit COP 🡪 fall in SRAS 🡪 GPL increases ( rise in cop – more expensive to produce – decrease in AS – lead to increase in GPL)

Conclusion

“Slump” in consumer prices is unlikely to continue. Extract 6 suggested that the prices of household durables, education and recreation have still been holding up.

**(c) With reference to Extract 6, suggest how it is possible that overall consumer prices fell despite prices of household durables, education, and recreation holding up. [3]**

The CPI is calculated using a weighted average of prices for a typical bundle of goods and services purchased by households.

Weights are assigned to the basket of goods; COE, accommodation, household durables, education and recreation depending on the share of income spent on each good.

COE prices and accommodation costs have fallen. With the larger weights assigned to them, it will have a greater impact on the overall CPI by a larger extent. As compared to the rise in household durables, education and recreation, they have relatively smaller weights and hence lesser impact on the overall CPI.

The fall in CPI due to the fall in COE prices and falling accommodation costs outweighs the rise in household durables, education and recreation. This results in an overall fall in consumer prices despite prices of household durables, education and recreation holding up.

**(e) Discuss the reasons why the Singapore government seeks to achieve innovation-driven and inclusive growth. [7]**

Introduction

* Singapore government seeks to achieve innovative driven and inclusive growth as it helps Singapore maintain a competitive edge and helps ensure equity.
* Inclusive economic growth involves actual growth and potential growth. In addition, it involves government policies to ensure that gains from economic growth are equitably distributed across society.

Innovation helps to achieve both actual and potential growth:

* Process innovation can help improve the quality of resources to improve the production process, hence increasing productive capacity of the economy. Thus, LRAS increases, shifting the LRAS curve to the right.
* Increase productivity 🡪 knock on effects 🡪 unit COP decreases 🡪 increase in SRAS and shift to the right.

Main Body

**Reason 1: Innovation-driven and inclusive growth can lead to higher employment and productive efficiency**

* Innovation-drive and Inclusive growth means sustainable growth by creating job opportunities for all. This means reducing both demand deficient unemployment and structural unemployment.
* An increase in actual growth due to inclusive growth indicates an increase in aggregate demand (AD). In order to meet the increase in AD, firms will have to employ more factors of production including labour. This leads to an increase in demand for labour and a fall in demand deficient unemployment.
* In the pursuit of inclusive growth, the government focuses on investing in human capital so as to create opportunities for all segments of the population, reducing structural unemployment.
* Extract 10: “It helps workers who face dislocation in the market; it leads to skills accumulation across society; everyone benefits”.
* The government will also subsidise programmes to upgrade the skills of the workers so as to create a more productive workforce and retrain workers who skills are redundant so that they can take up jobs in other sectors.
* By ensuring that there is productive employment for all, this means that scarce resources are fully utilized, allowing the economy to operate closer to the maximum output it can achieve, leading to productive efficiency.

**Reason 2: Innovation-driven and inclusive growth can lead to low inflation**

* Innovation-driven and Inclusive growth leads to non-inflationary growth, which includes both actual and potential growth. Inflation refers to a sustained increase in general price level. As inclusive growth focus on the pace of growth, the increase in AD is in tandem with the increase in aggregate supply (AS). As the increase in general price level is now matched with an increase in real national income, inflation rate remains low as there is spare capacity to produce more goods and services in the economy.
* To achieve inclusive growth, the government focuses on policies to increase labour productivity. This will mean a fall in the unit cost of labour, an increase in short-run AS (SRAS), bringing about a fall in wage push inflation in the country.

**Reason 3: Innovation-driven and inclusive growth can lead to high standard of living and more equitable distribution of income**

* Innovation-driven and inclusive growth helps to create opportunities for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society.
* Economic growth is defined as an increase in Gross Domestic Product (GDP), which is the total monetary value of the final goods and services that is domestically produced within a year.
* An increase in real GDP means more goods and services are produced. At the same time, there is an increase in households’ income leading to higher purchasing power and more consumption of goods and services leading to a higher material standard of living.
* By providing training for all Singaporean, there will be “greater skills proficiency, knowledge and expertise”. This makes Singapore to be an attractive investment destination and thus attract foreign investment 🡪 Higher I🡪 Higher AD🡪 Higher real national income 🡪 higher economic growth.
* With higher economic growth, the government is able to generate more tax revenue. By aiming to achieve inclusive growth, the government is likely to spend more on education subsidies as a means to create productive employment and more on healthcare programs so as to redistribute wealth by making these merit goods more affordable to lower-income households. This contributes to a higher literacy rate and life expectancy, leading to a higher non- material standard of living.
* At the same time, the distribution of increased prosperity means that the standard of living for every individual is likely to increase and the value of the Gini coefficient falls.

Conclusion

* The most important reason for innovation-driven and inclusive growth is to enable a higher SOL for all Singaporeans.
* Due to the nature of SG economy 🡪 small and open 🡪 labour is our only resources 🡪 need to focus on productivity growth to increase SOL across segment 🡪 criteria especially productivity growth range from 0 to -1.5% from Table 1 🡪 supported by extract 9: “by enabling a highly-skilled and competitive workforce, it has allowed Singaporeans to secure better jobs, higher incomes and enjoy higher standards of living”.
* The heart of the Inclusive Growth Programme is to enable a broad- based growth in most sectors, enabling a higher SOL for all citizens.

Or

* Nature of SG economy 🡪 small country with tight labour market 🡪 need to continuously innovate to gain an edge over other countries 🡪 to ensure that X stays competitive 🡪 and to stay relevant in this era that is filled with technological disruption 🡪 so as to achieve export-led growth
* As evident in extract 9 “With the fast pace of technological advancements and stronger global competition for jobs, skills-upgrading and deepening are essential for Singaporeans to maintain a competitive edge”.

Or

* Singapore has already moved from a phase of rapid catch up growth to a phase of trend growth (predicted to be 2% growth till 2030). Relying solely on adopting technology is no longer sufficient to boost our economic growth. To maintain trend growth, Singapore government must focus on innovation.
* Moreover, SG economy 🡪 Nation faced a tight labour market so can’t increase the size of labour force to boost growth 🡪 besides, also facing ageing population 🡪 if nothing is done 🡪 Potential growth will decrease 🡪 Therefore enhancing productivity through innovation- driven growth 🡪 the way to go to ensure a sustained growth for SG.

**(f) Using the extract and/or your own knowledge, discuss the effectiveness of achieving inclusive growth in Singapore through the use of fiscal policy and supply side policies. [12]**

Introduction

Inclusive growth is economic growth that is distributed fairly across society and creates opportunities for all.

* These policies focus on economic growth, low unemployment and low prices
* Eradicate unequal distribution of income and wealth

Main Body

**1) How fiscal policy works to achieve inclusive growth.**

(a) Policy mechanism

* FP 🡪 Spending on infrastructure 🡪 increase AD 🡪 increase RNY (actual growth
* Better infrastructure 🡪 increase productivity 🡪 increase LRAS 🡪 potential growth.
* With higher RNY, govt collects more income tax revenue 🡪 redistribute to lower income grp in terms of subsidies on healthcare and school education.
* Extract 10 mentioned providing more targeted subsidies for those who require it most 🡪 Inclusive growth
* Based on a progressive tax system, tax revenue generated from the high-income earners can be redistributed to those in the lower income earners.

(b) Effectiveness

Correlation between trend in budget balance in Singapore and the Gini coefficient (Table 1). Increasing government spending in terms of education, housing and healthcare subsidies might have resulted in a smaller value of the Gini coefficient, which means a more equitable distribution of income. Also, Gini coefficient after accounting for government transfers & taxes are lower than that of Gini coefficient before government transfers and taxes. This clearly shows that fiscal policy is effective in achieving a more inclusive growth.

(c) Limitations

However, deciding on the right amount of subsidies and how the subsidies should be channelled is administratively costly and will put a further strain on the government budget. Singapore’s budget balance was in deficit and the deficit was constant in 2015-2016.

**2) How SS side policies work to achieve inclusive growth**

(a) Policy mechanism

Ss-side policy like tax credits and subsidies for upskilling are another example of a policy that supports equity as well as innovation and growth, as mentioned in the last extract. Upskilling improves productivity 🡪 increase LRAS and potential growth.

Also, SS side policy helps to reduce occupational immobility of the workers in the sunset industries, low wage workers can now take up jobs in other sectors where wages are higher. Therefore, attending retraining courses will also help low-wage workers receive higher income in future, achieving inclusive growth.

(b) Effectiveness

As shown Table 1, the negative productivity growth rate has fallen in 2016, this implies that existing SS side policies to boost productivity is somewhat effective.

(c) Limitations

However, it is difficult to change the mindset of workers and encourage them to go for retraining. It is also difficult to forecast the future economic needs and hence come up with appropriate and relevant courses.

Conclusion

In conclusion, both fiscal and supply-side policies are required to achieve inclusive growth. Fiscal is better and more immediate than SS side policies to reduce income gap but SS side policies solutions are more sustainable. Particularly, supply-side policies such as subsidies for upskilling are the more effective measure to help low-wage workers in the long run. However, sustained effort is needed to continue to promote upskilling as it takes time to change people’s mindset. Property and income taxes are still needed nevertheless to provide the budget for the subsidies.

[Other observations]

Property taxes mentioned in the last extract also helps to achieve equity as those who own more expensive property will be required to pay more than those who don’t. The tax revenue can also be channelled to other services to promote equity, helping to achieve inclusive growth.

However, there’re other issues with this measure as it has been argued that some of those who own large property are asset-rich but cash-poor hence fulfilling property tax payment may be an issue.