Macroeconomic Aims Issues and Policies

2026 Term 2 Week 8 - Class Test 4

The Covid-19 pandemic led to border lockdowns and global supply chain disruptions, forcing many firms to adjust production and restructure their operations. The outcome was recession as Singapore's GDP contracted by 4.1% and a rise in the unemployment rate to 4.1% in 2020.

a) Explain how these developments could lead to an increase in both demand-deficient unemployment and structural unemployment in Singapore. [10]

b) Discuss whether the Singapore government should adopt fiscal policy or monetary policy centred on exchange rate when faced with a recession. [15]

Suggested mark scheme

Part (a)

Introduction:

- Identify that unemployment rate refers to the percentage of labour force who is willing and able to work but unable to find work.
- Define demand deficient unemployment
- Define structural unemployment

Body

Requirement #1: Pandemic → demand deficient unemployment rise

i) Pandemic leads to fall in AD (student should explain 2 channels in which AD is reduced)

- Explain how the pandemic/event led to a fall in AD via fall in autonomous C, I and X:
- Fall in autonomous C: Lockdowns, fear of infection and reduced mobility discourage households from spending on non-essential goods and services such as travel, dining, retail and recreation. At the same time, households may fear job loss or future income loss, causing consumer confidence to fall. They may increase precautionary savings and reduce current consumption. Hence C falls.
- Fall in I: Firms facing weaker sales, unused capacity and uncertainty over future demand postpone investment in capital goods, renovations and expansion plans. Hence I falls.
- Fall in X: If the pandemic causes a world-wide recession, trading partners' real national income falls. Their households and firms have less purchasing power, reducing demand for the country's exports. Border closures also reduce tourism and travel-related exports. Hence X falls.
- Since AD = C + I + G + (X - M), the fall in C, I and X cause AD to decrease. In an AD-AS diagram, AD curve shifts left from AD_0 to AD_1.

ii) Fall in AD leads to rise in **demand deficient unemployment**

- At the initial GPL, aggregate supply is greater than aggregate demand, so firms experience unintended accumulation of inventories/stocks.
- To clear excess stock, firms cut production. Real national output falls from Y_0 to Y_1.

- Because labour is a derived demand, a fall in output reduces firms' demand for labour. Qty of workers hired is reduced as firms may retrench part of their workforce.
- The reverse multiplier process deepens this effect: Principle – one man's spending is another man's income. The reduction in AD causes the reduction in income for others. Retrenched workers reduce consumption further, causing additional rounds of falling AD and the outcome of a more than proportionate fall in real NY.
- As lower income and spending spread throughout the economy, firms in sectors beyond those initially affected also face weaker demand and may cut output and employment.
- Hence, demand-deficient unemployment rises across many industries.

Requirement #2: Pandemic → Structural Unemployment

- The Covid-19 pandemic could have increased Singapore's structural unemployment rate by creating a mismatch between workers' skills and available jobs.
- Lockdown measures, border restrictions and safe-management measures reduced demand for multiple sectors within the economy such as tourism, aviation, hospitality, retail and food services.
- Firms in these sectors cut output or restructured, causing some workers to be retrenched.
- At the same time, Covid-19 accelerated structural changes in the economy, such as: Increase in usage of e-commerce and digital payments away from traditional brick and mortar companies with customer facing staff.
- Companies also increased automation in production to overcome the disruptions to labour supply.
- Hence, labour demand shifted away from traditional customer-facing or routine operational roles towards jobs requiring digital skills and IT skills.
- Even if there were job vacancies in expanding sectors, the retrenched workers might remain unemployed because their skills and experience did not match the requirements of the available jobs.
- Therefore, Singapore's structural unemployment rate could rise because Covid-19 changed the structure of labour demand across industries and occupations.

Knowledge, Application, Understanding, Analysis		
L1	▪ *Lack application of relevant economic framework and context* ▪ *Critical errors in analysis* ▪ *Significant conceptual gaps in explanation*	***1 - 4***
L2	▪ *Some economic analysis for both requirements (R1 and R2) but with gaps or lapses in explanations* ▪ *Some application of context and use of examples* ▪ *Lacking in full scope of analysis*	***5 - 7***
L3	*A well-developed answer that demonstrates:* ▪ *Rigorous analysis for BOTH requirements* ▪ *Good scope of coverage* ▪ *Good application of contextual examples*	***8 - 10***

(b) Discuss whether the Singapore government should adopt fiscal policy or exchange rate policy when faced with a recession.

Introduction:

Clarification: Recession → at least 2 consecutive quarters of negative EG

Requirement #1: Explain the use of Fiscal Policy to manage recession in SG

Thesis: Exp Fiscal Policy → Manage the recession

Discretionary expansionary fiscal policy refers to a deliberate increase in government expenditure and/or reduction in taxes to bring about the rise in the level of AD.

<u>Explaining how exp FP results in rise in AD</u>

The Singapore government could implement a rise in government expenditure such as increase spending on security and defence, public work projects (schools, transportation network, infrastructure) etc. Or the government can cuts taxes, e.g. personal income taxes, this will increase households' disposable income. Households will save some of this additional income, but they will spend some of it on consumer goods. The rise in G and C in these examples will lead to a rise in AD as AD=C+I+G+(X-M)

<u>Multiplier effect:</u>

An initial increase in government spending (assume exp FP is in G) raises aggregate demand (AD_0 to AD_1), prompting firms to boost production and hire more workers, thereby increasing national income (Y_0 to Y_1).

These newly employed workers then spend more on goods and services, generating higher incomes and profits for other firms. This triggers further rounds of spending (AD_1 to AD_2) and income generation, though each round becomes smaller due to leakages such as savings, imports and taxes. As a result, the overall increase in real national income is greater than the initial rise in Aggregate demand – helping Singapore recover from a recession.

AT: Limitations of exp Fiscal Policy in SG

- In Singapore, consumption (C) and government spending (G) form a relatively small share of aggregate demand compared to many larger economies. As a highly open economy, Singapore relies heavily on exports (about 180% of SG's GDP in 2024), so increases in G or attempts to stimulate C have a more limited impact on overall demand, especially if external demand conditions are weak (covid pandemic; X continues to fall).
- Singapore's multiplier effect is relatively small due to significant leakages from the circular flow of income. A large proportion of any increase in income is spent on imports rather than domestically produced goods, which reduces the marginal propensity to consume domestically. As a result, successive rounds of spending are weaker, limiting the overall increase in national income from an initial fiscal injection.

EV#1: (in comparison questions, just 1 evaluation point in R1) – more in the latter stages for comparison.

- Exp FP for Singapore will help to stabilise domestic demand when external demand collapses. As a highly export-dependent economy, Singapore was severely affected by the global downturn in trade and travel. In such circumstances, fiscal measures (e.g. direct transfers) can support household income and help firms survive, preventing a deeper recession and limiting demand-deficient unemployment. This was evident in large stimulus packages like the Resilience Budget, which helped buffer the economy despite weak global conditions.

Requirement #2: Use of Exp MP (Depreciation of SGD) to manage recession in SG

Thesis: ER Policy → Depreciate the S$ → Manage the recession

The MAS could adopt a once-off devaluation of the S$ exchange rate policy in times of deep economic recession.

Mechanism: depreciation leading to rise in AD.

- When the S$ depreciates, goods and services produced in Singapore will be more competitively priced in world markets in the short term. Price of Singapore exports (in foreign currency) falls. The amount of Singapore goods and services exported to the rest of the world increases. At the same time, imports will become more expensive. Price of Singapore imports (in S$) increases. The amount of goods and services imported into Singapore falls. As a result of the relatively more expensive imported goods and services, Singapore households and firms will switch to relatively cheaper domestically produced goods and services.

- Assuming Marshall-Lerner condition holds ($PED_x+PED_M>1$), this results in an increase in net exports which contributes to an increase in Singapore's AD in the short run, causing AD curve to shift to the right.

Multiplier effect (briefly as it has already been explained in greater detail above)

As explained earlier, an increase in net exports raises aggregate demand, leading to a rise in real national income and setting off the multiplier process and the outcome of a more than proportionate increase in real national income.

Context: Singapore aggregate demand is heavily influenced by our exports (179% of GDP in 2024). An improvement in export competitiveness leading to rise in AD will be critical in aiding our recovery.

AT: Limitations of exchange rate depreciation

- Singapore heavy dependence on imported inputs, exacerbated by covid-19 lock downs will mean that any depreciation of the exchange rate makes imported factor inputs such as energy, raw materials, and intermediate goods even more expensive, raising firms' costs of production and leading to cost-push inflation.
- Context: Singapore imports more than 90% of our food (data from 2026); Energy & Electricity - Over 96% of Singapore's energy is imported, primarily in the form of natural gas and petroleum products (data from 2013).

EV#2: (in comparison questions, just 1 evaluation point in R2) – more in the latter stages for comparison.)

- Depreciation of Singapore's exchange rate during the COVID-19 pandemic can be beneficial as it improves export competitiveness, making exports cheaper in foreign currency terms. This is important in a recession where external demand has collapsed and the depreciation help dampen the reduction in demand.
- While depreciation can provide some support to external demand during a recession, its net benefit is constrained in Singapore in the long term because import-cost inflation can partially offset the gains in competitiveness, making the policy less powerful in stimulating a broad-based recovery.

Overall EV: Comparison between exp FP and exp MP (2-3 insightful points of comparison with common yardstick)

1. Directness and time lag (effectiveness in a crisis)
Expansionary fiscal policy is generally more direct and faster in supporting domestic demand, as measures like wage subsidies, cash transfers, and government spending immediately raise household income and consumption – this not only raises AD, but also alleviates loss of income (SOL) and dampens rise in unemployment. In contrast, exchange rate depreciation works indirectly through improving export competitiveness, which depends on foreign demand recovering—something uncertain during COVID-19.

2. Feasibility and constraints in Singapore's context
Fiscal policy is highly feasible for Singapore due to its strong fiscal reserves and credibility, allowing large-scale support packages without immediate financing constraints. However, Singapore's exchange rate is not used as a short-term counter-cyclical tool because it is primarily designed for medium-term price stability in an extremely open economy, where import-driven inflation is a higher risk than business cycle volatility.

3. Resource allocation and macroeconomic trade-offs (short vs long run)
Fiscal policy involves direct government resource deployment but may be constrained by long-term considerations such as rising public expenditure commitments. Depreciation, however, improves external price competitiveness without direct fiscal cost, but imposes inflationary pressure through higher import prices—especially significant given Singapore's reliance on imported inputs. Thus, fiscal policy is more effective in supporting domestic recovery, while depreciation risks worsening cost pressures even if it boosts net exports.
Summative evaluation (recommendation): Overall, expansionary fiscal policy is likely to be more effective for Singapore during a recession as it provides faster and more direct support to domestic demand, employment, and household incomes. It is also more feasible given Singapore's strong fiscal position.

Knowledge, Application, Understanding, Analysis		
L1	▪ *No use of relevant economic framework* ▪ *Answer is mainly descriptive or mere listing of points* ▪ *Significant conceptual errors in explanation*	***1 - 4***

L2	▪ *Some application of relevant economic concepts and framework in analysis* ▪ *Some use of contextual examples* ▪ *Lacking in full scope of analysis, e.g., lacks details for how the policy tackles recession*	***5 - 7***
L3	*A well-developed answer that demonstrates:* ▪ *Rigorous analysis for BOTH requirements* ▪ *Good application of contextual examples - Singapore* ▪ *Good application of relevant economic framework*	***8 - 10***
Evaluation		
E1	▪ *Unsupported judgment* ▪ *Superficial conclusion/assertion*	***1 – 2***
E2	▪ *Substantiated judgment, recommendation supported by reasons/ economic analysis* ▪ *Answer the question regarding whether expansionary FP or MP is more appropriate for Singapore.*	***3 - 4***
E3	▪ *Insightful and perceptive evaluation and recommendation well discussed in relation to Singapore context and evaluated using economic analysis and good application while answering the question of comparison.* ▪ *Summative evaluation at the end*	***5***