



RAFFLES INSTITUTION
2017 YEAR 6 Preliminary Examination
Higher 1

ECONOMICS

8819

Case Studies and Essays

29 August 2017

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your name, index number and civics class on all the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use a soft pencil for diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions in **Section A** and **one** question in **Section B**.

The number of marks is given in brackets [] at the end of each question or part question.

Begin answering each question on a fresh sheet of writing paper.

At the end of the examination, **fasten** your answer to each question **separately**.

Please attach this **cover sheet** to your answers to **Section B** and **indicate the question attempted**.

Name: _____

Civics Class: _____

Section B Question No.	Marks
	/25

This document consists of **8** printed pages and **2** blank pages.



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Section A

Question 1

Figure 1



Source: The Economist

Table 1: Global Petrol Prices

Countries	Petrol Prices
Singapore	1.34
Hong Kong	1.84
Indonesia	0.65
Australia	0.90
USA	0.60
Russia	0.51
Germany	1.41
UK	1.52
Colombia	0.64
Saudi Arabia	0.24
India	0.95

Source: www.bloomberg.com

Extract 1: The oil conundrum

Less than a decade ago the world scrambled for oil, largely to fuel China's commodity-hungry growth spurt, pushing prices to over \$140 a barrel in 2008. Now the fear for producers is of an excess of oil, rather than a shortage. The addition to global supply over the past five years of 4.2m barrels a day (b/d) from America's shale producers, although only 5% of global production, has had an outsized impact on the market by raising the prospects of recovering vast amounts of resources formerly considered too hard to extract.

Last year the world produced 96.3m b/d of oil, of which it consumed only 94.5m b/d. So each day about 1.8m barrels went into storage tanks—which are filling up fast. Though new storage is being built, too much oil would cause the tanks to overflow. The only place to put the spare barrels would be in tankers out to sea, like the Iranian oil sitting off Kharg, waiting for demand to recover.

For oil producers that is an alarming prospect. When, in November 2014, Saudi Arabia forced OPEC to keep the taps open despite plummeting prices, it hoped quickly to drive higher-cost producers in America and elsewhere out of business. Analysts expected a snappy rebound in prices. Yet, there is no sign of a bottom. Projections for a meaningful recovery in the oil price have been pushed back until at least 2017. Even if OPEC tried to reassert its influence, the producers' cartel would probably fail because the oil industry has changed in several ways. Shale-oil producers, using technology that is both cheaper and quicker to deploy than conventional oil rigs, have made the industry more entrepreneurial.

In theory a long period of low oil prices should benefit the global economy. Cheaper fuel should stimulate global economic growth. The benefits to consuming nations typically outweigh the costs to producing ones. The economies that have enjoyed the strongest GDP growth in the past year have indeed been oil importers: India, Pakistan and countries in east Africa. It is hard to explain the consumer-led recovery in the euro area without assuming a

positive impact from lower oil prices. In the IMF's latest forecast, published on January 19th, the handful of big economies that were spared downgrades to GDP growth—China, India, Germany, Britain, Spain and Italy—were all net oil importers.

Big oil firms would then face some existential questions. In the future, should they carry on as before, splurging on expensive vanity projects in hard-to-reach places, at the risk of having “unburnable” reserves as environmental concerns mount? Should they reinvest their profits in shale or in greener technologies? Or should they return profits to shareholders, as some tobacco companies have done, marking the beginning of the end of the fossil-fuel era? Whatever they do, the era of oil shocks is far from over.

Source: The Economist, 23 January 2016

Extract 2: Time to reform US energy subsidies and taxes

World oil prices have been highly volatile during the last decade. Over the past year they have fallen more than 50%. Should we root for prices to go up, down, or stay the same? The economic effects of falling oil prices are negative overall for oil-exporting countries, of course, and positive for oil-importing countries. The US is now surprisingly close to energy self-sufficiency, so that the macroeconomic effects roughly net out to zero. But what about effects that are not directly economic? If we care about environmental and other externalities, should we want oil prices to go up or down? Up, because that will discourage oil consumption? Or down because that will discourage oil production?

The answer is that countries should seek to do both: lower the price paid to oil producers and raise the price paid by oil consumers. How? By cutting subsidies to oil and refined products or raising taxes on them. Many emerging market countries have taken advantage of the last year of falling oil prices to implement such reforms. The US should do it too.

Fuel pricing is a striking exception to the general rule that if the government has only one policy instrument it can achieve only one policy objective. A reduction in subsidies or increase in taxes in the oil sector could help accomplish objectives in these areas at the same time:

1. The budget - it is estimated that energy subsidy reform globally (including coal and natural gas along with oil) would offer a fiscal dividend of \$3 trillion per year.
2. Pollution and its adverse health effects.
3. Greenhouse gas emissions, which lead to global climate change.
4. Traffic congestion and traffic accidents.
5. Income distribution - fuel subsidies are often misleadingly sold in the name of improving income distribution. The reality is more nearly the opposite. Worldwide, fossil-fuel subsidies are regressive: far less than 20% of them benefit the poorest 20% of the population.

Oil prices have recently fallen to around \$50 a barrel – down from a level well over \$100 a barrel in the summer of 2014. So governments that act now can reduce energy subsidies or increase taxes without consumers seeing an increase in the retail price from one year to the next.

Source: World Economic Forum, 2015

Extract 3: Singapore Budget 2015 - Rise in petrol duty

SINGAPORE - From today, drivers will have to pay more for petrol as the Government announced an increase in petrol duty rates. There is a reprieve, however, as there will be a one-year road tax rebate.

Deputy Prime Minister and Finance Minister Tharman Shanmugaratnam said in his Budget speech on Monday that the rise in petrol duties is meant to encourage less car usage and reduce carbon emissions. Petrol duty rates have remained unchanged since 2003.

The duty for premium grade petrol will be raised by 20 cents per litre to 64 cents per litre, while that of intermediate grade petrol will be increased by 15 cents per litre to 56 cents per litre.

"With falling oil prices, pump prices after the petrol duty changes would remain lower than the levels seen in the last two and a half years. These changes will take effect today, and yield about \$177 million a year," Mr Tharman said.

Source: The Straits Times, 23 February 2015

Question

- (a) (i) With reference to Figure 1, explain the relationship between the trend in the oil prices and world supply of oil. [2]
- (ii) Comment on whether the trend in the price of oil is likely to continue. [4]
- (b) With use of the case material and your own knowledge, analyse the likely impact of the fall in price of oil on oil-producing countries and on oil-importing countries. [6]
- (c) (i) Explain the likely value of price elasticity of supply for crude oil. [2]
- (ii) With reference to Table 1, explain 2 possible reasons that account for the differences in petrol prices between countries. [4]
- (iii) With the aid of a diagram and use of relevant elasticity concepts, explain whether consumers or producers are likely to bear a greater burden of the increase in petrol duty in Singapore. [4]
- (d) Discuss why some countries impose a tax on oil-related products whereas some countries subsidise. [8]

[30 Marks]

Question 2

The Competitiveness of the Singapore Economy

Extract 4: The future of manufacturing in Singapore

The Republic's manufacturing sector has come under pressure in recent years. Experts say that in order to keep manufacturing jobs in Singapore, more needs to be done beyond dangling financial incentives to companies.

The Republic may have become a more services-driven economy, but manufacturing is still a key pillar, accounting for a fifth of GDP and more than 400,000 jobs. In the face of regional competition and domestic restructuring, manufacturing workers have been singled out by the Labour Movement as the most at risk of losing jobs.

Over the last decade, Singapore's manufacturing sector has declined in importance relative to the services sector, with its share of GDP falling from over a quarter to just 17 per cent in 2014.

However, according to SPRING Singapore, this does not necessarily mean the manufacturing sector is hollowing out. SPRING Singapore's group director for industry and enterprise development, Edwin Chow, said: "Of course, there will be companies that have moved out. The most famous one everyone quotes is Seagate.

"Seagate used to make disk drives in Singapore but Singapore companies became a little bit too expensive, so Seagate decided to move to Malaysia and to Thailand. Some of our supporting industries have also followed suit. But Seagate now makes the media, the disk media - the more expensive stuff - that runs the disk drives, in their plant over in Woodlands."

Historical growth of Singapore's sector depended - to a large extent - on attracting multinationals, who came in to create jobs and transfer technological know-how.

Source: Channel News Asia, 3 November 2015

TABLE 2 : INWARD FDI IN MANUFACTURING, 2001-2011						
Sector/Industry	2001	2003	2005	2007	2009	2011
S\$ Billion						
Manufacturing	81.2	90.0	103.7	116.5	123.3	137.3
Pharmaceutical Products	17.4	29.3	38.7	47.9	37.0	44.5
Computer, Electronic and Optical Products	36.6	30.9	31.7	31.6	40.5	41.4
Per Cent (%)						
Manufacturing	100.0	100.0	100.0	100.0	100.0	100.0
Pharmaceutical Products	21.5	32.6	37.3	41.1	30.0	32.4
Computer, Electronic and Optical Products	45.1	34.3	30.6	27.1	32.8	30.1

Source: Statistics Singapore, September 2013

Extract 5: Productivity and Standard of Living

Simply put, productivity is the efficiency with which resources (or 'input factors'), such as labour and capital, are converted into outputs such as goods and services. Productivity

measures are expressed as a ratio of output to input factors. Improving productivity is important for a developed country like Singapore because its input factors are close to being fully utilised. In early stages of development, countries can grow their economies by mobilising under-utilised input factors—labour in particular. As more factors are utilised, the efficiency with which these are used (i.e. productivity) then becomes the most important factor in growing the economy. Further injection of labour inputs alone does not increase living standards even if it increases national income since that increase in national income has to be shared by a proportionate increase in the labour force. What matters for living standards is not total income but income per capita. In the long run then, as Krugman points out, the growth in standards of living within a country depends almost entirely on its ability to sustain productivity growth.

Source: Singapore's Productivity Challenge, LKY SPP NUS, 2014

Extract 6: Government commits \$19b to a new 5-year plan for R&D

Prime Minister Lee Hsien Loong unveiled a S\$19 billion plan to support Singapore's R&D efforts over the next five years. The Research Innovation Enterprise 2020 Plan (RIE2020) seeks to support and translate research into solutions that address national challenges, build up innovation and technology adoption in companies, and drive economic growth through value creation.

The S\$19 billion commitment represents an 18 per cent jump from RIE2015's S\$16.1 billion and is the biggest budget to date.

Speaking at the launch of RIE2020, Prime Minister Lee said RIE will continue to be important to secure Singapore's future. "It will contribute significantly to the economy and creates opportunities and jobs, supports national initiatives like Smart Nation, SkillsFuture, studies which we are doing under the Committee for the Future Economy, and it helps our workers to thrive amidst technological changes and globalisation," he said.

Mr Lee also announced that the sixth five-year roadmap for research, innovation and enterprise will be more targeted in its funding approach, as the National Research Foundation (NRF) looks to capitalise on technology the country has a competitive advantage in, as well as build up capabilities in areas that are deemed to have a greater national need. The NRF is a department under the Prime Minister's Office (PMO), and sets the national direction for R&D by developing policies, plans and strategies for research, innovation and enterprise.

Specifically, instead of broadly categorising the funding into "Private R&D" and "Public R&D", as was done in RIE2015, this time there would be four primary technology domains. The four domains seek to deepen the technological capabilities and competitiveness of Singapore's manufacturing and engineering sectors, advance human health and wellness, leverage the country's digital capabilities to raise productivity and meet national priorities, such as developing a reinforced cybersecurity infrastructure and system to fend off cyber threats.

Also, the Government will sustain R&D spending at about 1 per cent of GDP. This is more than the UK, but comparable to the US and public spending in other research-intensive economies.

Deputy Prime Minister Teo Chee Hean, who is the chairman of the NRF Board said: "Essentially R&D is an investment in our own future. It's an expression of belief in Singapore and Singapore's future and if we want to be a knowledge-based economy, which thrives on innovation and enterprise, and to build this knowledge base on which we can build the future of Singapore, then R&D is where we have to invest."

Source: Channel News Asia, 8th Jan 2016

Extract 7: Singapore ranks 2nd on the Global Competitiveness Index

Singapore ranks 2nd on the Global Competitiveness Index for the sixth year in a row. It features in the top 10 of ten pillars of the Index. It tops the higher education and training pillar and the goods market efficiency pillar, and ranks 2nd in a further five. Singapore's public institutions are transparent and highly efficient. Its infrastructures are among the world's best (2nd behind Hong Kong). Singapore also boasts a stable macroeconomic environment (11th) with healthy public finances where government budget has been in surplus since 2010. However, Singapore still lags behind the best-performing nations in the most sophisticated areas of competitiveness, with a relatively disappointing 9th rank in the innovation pillar and 19th rank in the business sophistication pillar.

Source: World Economic Forum, 2017

Questions

- (a) (i) Compare the trends in inward FDI within the manufacturing sector between 2001 and 2007. [4]
- (ii) Account for the difference in the trends above. [2]
- (b) (i) Comment on the impact of an inflow of FDI on the Balance of Payments of Singapore. [4]
- (ii) Explain the type of unemployment that is likely to result from a hollowing out in the manufacturing sector. [2]
- (c) (i) How might achieving 9th rank in the innovation pillar affect the global competitiveness of the Singapore economy? [2]
- (ii) Using the case material and your own relevant knowledge, assess two policies the Singapore government has used to improve its global competitiveness. [8]
- (d) Discuss the view that "the growth in standards of living within a country depends almost entirely on its ability to sustain productivity growth". [8]

[30 Marks]

Section B

Answer **one** question from this section.

3 Table: 2014 Health Expenditure, Total (% of GDP)

USA	17.1
Japan	10.2
Singapore	4.9

Source: World Bank

- (a) Explain the key economic objectives of a government. [10]
- (b) Discuss whether the need to address market failure arising from merit goods is the main reason for government expenditure in Singapore. [15]
- 4** (a) Explain the benefits of achieving economic growth and low unemployment rate in a country. [10]
- (b) Discuss the view that international trade will help Singapore achieve its economic objectives. [15]

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ECONOMICS
Higher 1
Syllabus 8819

Examiner's Report

Year 6 Preliminary Examination 2017



ECONOMICS

Y6 H1 Preliminary Examination 2017

Paper 8819

Question 1

(a) (i) With reference to Figure 1, explain the relationship between the trend in the oil prices and world supply of oil. [2]

- Inverse relationship between world supply of oil and price of oil. [1m]
- As the supply of oil increased, surplus of oil at existing prices will lead to a downward pressure on price. [1m]

(ii) Comment on whether the trend in the price of oil is likely to continue. [4]

- Identify trend in oil prices → falling prices
- T: Falling prices is likely to continue:
 - o Ext 1: “there is no sign of a bottom”
 - o “OPEC is keeping its taps open”
 - o “Shale oil producers – using technology that is cheaper and quicker to deploy...”
 - o → Supply of oil will continue to increase → causing the price of oil to continue to fall
- AT: The trend is not likely to continue
 - o Demand for oil may increase with economic growth
 - o “May drive higher cost producers out of business” → SS may fall in future
- Comment:
 - o Depends on recovery in demand and whether the increase in supply will persist.

Mark Scheme:

- *Did not comment (either no AT or statement of anything insightful, important or interesting): max 3m*
- *No use of case material: max 2m*
- *Lack of use of demand/supply framework: max 2m*

(b) With use of the case material and your own knowledge, analyse the likely impact of the fall in price of oil on oil-producing countries and on oil-importing countries. [6]

Impact on oil-producing countries

- Price of oil falls due to increase in world supply → the fall in price will lead to a less than proportionate increase in Qd of oil as PED is likely to be price-inelastic (lack of substitutes) → fall in Total Revenue for oil producers
- Alternatively, another acceptable analysis - the fall in price is accompanied by a fall in demand for each country's oil due to increased competition from shale oil → fall in P, fall in Qty traded → fall in TR for oil producers
- This fall in total revenue will lead to a fall in export revenue for the country → through the reverse multiplier process → more than proportionate fall in AD and NY → dampening economic growth, rise in unemployment rate, and worsen the BOP.
- “...costs to producing (oil) producing ones”

Impact on oil-importing countries

- Fall in price of oil → fall in COP as oil is used in the production of most goods and services → increase in AS → fall in GPL → dampens inflationary pressure and increase NY (due to increase in competitiveness of its goods and services – foreign substitution effect, and greater affordability – wealth effect).
- “the economies that have enjoyed the strongest GDP growth in the past year have indeed been oil importers...”

Possible evaluation:

- Extent of the impact:
 - o For oil exporting countries, extent of the negative impact depends on the reliance on the oil industry as a source of EG. Will probably hit middle-eastern countries with oil exports as a large % of GDP as compared to Russia.
 - o For oil importing countries, extent of the positive impact depends on the reliance on oil imports, and the % of oil used to produced goods and services in the country.

Mark Scheme:

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> ▪ Descriptive responses with conceptual errors. ▪ Lack scope – only addressed impact on oil-producing or oil-importing countries. ▪ Lack links back to KEI – “countries” ▪ No use of economics framework in analysis 	1 – 3
L2	<ul style="list-style-type: none"> ▪ Good scope of analysis ▪ Use of economic framework ▪ Application to the case material ▪ No evaluation – “analyse” – max 5m 	4 - 6

(c) (i) Explain the likely value of price elasticity of supply for crude oil. [2]

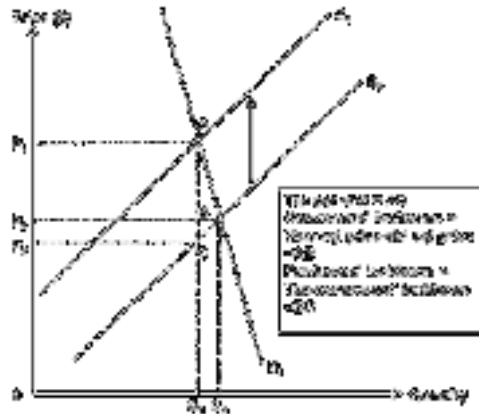
- PES < 1 → storage filling up fast (too much oil would cause tanks to overflow) and long length of production period (hard to extract) → this means that for a given price fall, the quantity supplied will fall by less than proportionately.
- Alternatively, PES > 1 is also acceptable → ability to store oil (1.8m barrels went into storage tanks), and time period to produce oil has fallen (due to improvements in technology) → this means that for a given price fall, the quantity supplied will fall by more than proportionately.

(ii) With reference to Table 1, explain 2 possible reasons that account for the differences in petrol prices between countries. [4]

- Reason 1: Differences in cost of production – price of crude oil, etc.- the higher the COP, the higher the price of petrol
 - o Oil producing countries → Price of petrol is lower (due to lower cost of crude oil) e.g. Russia and Saudi Arabia
 - o Oil importing countries → Price of petrol is higher (due to higher price of crude oil/import of petrol) e.g. Singapore, HK
- Reason 2: Government Policy – either subsidies (lower price) or taxes (higher price)
 - o “govt can reduce energy subsidies or increase taxes without consumers seeing an increase in retail price”
 - o Countries which tax petrol – Singapore
 - o Countries which subsidise petrol – US, India

(iii) With the aid of a diagram and use of relevant elasticity concepts, explain whether consumers or producers are likely to bear a greater burden of the increase in petrol duty in Singapore. [4]

- Petrol duty – taxes on petrol
- The increase in taxes will cause a fall in SS of petrol → increase in Price of petrol
- Illustrate using theoretical framework.
 - o Given that demand for petrol is likely to be price-inelastic (as compared to PES for petrol), consumers are likely to bear a greater burden of the increase in petrol duty
 - o When the tax per unit (represented by the vertical distance AC) is imposed, the supply curve shifts upwards by the amount of the tax. The market clearing price increases from P_0 to P_1 . The increase in price for buyers (AB) is less than the tax per unit. The producers bear tax incidence of BC, which is lower than that consumers' incidence.



Mark Scheme:

- Diagram – 1m
- PED vs PES – 1m
- Consumers – 2m

(d) Discuss why some countries impose a tax on oil-related products whereas some countries subsidise. [8]

T: Explain why countries impose tax on oil-related products

- Oil related taxes can help to reduce negative externalities and reduce welfare losses to society. E.g. tax on petrol.
- Extract 2: “pollution and adverse health effects”, “greenhouse gas emissions”
 - o By imposing a tax on petrol, price of petrol increases → fall in Qd to society’s optimal level → reduce welfare loss.
- Illustrate diagrammatically

AT: Explain why countries subsidise oil-related products

- Fuel subsidies can help to increase affordability of oil-related products such as petrol, cooking oil etc
- Extract 2: “fuel subsidies ...sold in the name of improving income distribution”
 - o by giving fuel subsidies => price of fuel falls → more people are able to afford these necessities.
- Subsidies on oil-related products can also increase competitiveness of a country’s goods which can impact economic growth

- By increasing competitiveness of industries which uses oil as a FOP → increase in demand for the country's exports → increase in AD → increase in NY through the k-process → helps to create jobs and lower unemployment rate

Evaluation:

- Should countries tax/subsidise? Should it be left to the free market?
- Whether or not they should tax/subsidise depends on the government's objectives and the nature of the country. Some reasons are more justifiable than others?
- Sustainability of the subsidy and benefits vs cost of subsidy and tax?

Mark Scheme:

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> ▪ Descriptive responses with conceptual errors. ▪ Lack scope – only explained tax or subsidy 	1 – 3
L2	<ul style="list-style-type: none"> ▪ Use of a theoretical framework ▪ Application to case context ▪ Good scope and depth of elaboration 	4 - 6
E	<ul style="list-style-type: none"> ▪ Synthesis and Judgement 	1-2

Question 2

(a) (i) Compare the trends in inward FDI within the manufacturing sector between 2001 and 2007. [4]

- FDI increased in the pharmaceutical sector whereas it decreased in the computer, electronic and optical products sector.
- The above trends was observed both in terms of absolute value and as a percentage of total manufacturing.
- The decline in FDI in computer manufacturing, electronic and optical products was greater in relative terms (39.9%) compared to the absolute decline (13.6%).
- The relative importance of pharmaceutical products in total manufacturing FDI increased while it decreased for computer, electronic and optical products.

No credit for stating the overall trend in manufacturing.

(a) (ii) Account for the difference in the trends above. [2]

- Shift in emphasis of Singapore economy towards more knowledge intensive type of production i.e. pharmaceuticals.
- Acquisition of dynamic CA in pharmaceuticals whereas there was a loss in CA in computer manufacturing due to higher cost of production.

(b) (i) Comment on the impact of an inflow of FDI on the Balance of Payments of Singapore. [4]

Thesis: Favourable

Short-run

Improvement in financial account (FA), cet. par. → BOP surplus.

Long-run

Transfer of technology (dynamic gains) $\rightarrow P_x \downarrow \rightarrow$ Increase in X \rightarrow Improvement in current account, cet. par. \rightarrow BOP surplus

Anti-thesis: UnfavourableShort-run

Appreciation of currency (Dutch disease) $\rightarrow (X-M) \downarrow \rightarrow$ current account deficit. If current account deficit $>$ FA surplus \rightarrow BOP deficit.

Long-run

Outflow of profits (remittance) \rightarrow current account deficit.

(b) (ii) Explain the type of unemployment that is likely to result from a hollowing out in the manufacturing sector. [2]

- Structural due sectoral impact and “domestic restructuring” which followed.
- Retrenched workers could be occupationally immobile.

(c) (i) How might achieving 9th rank in the innovation pillar affect the global competitiveness of the Singapore economy? [2]

- Impact on competitiveness is likely to be adverse since Singapore is a knowledge-based economy and needs innovative products to achieve export competitiveness.

(c) (ii) Using the case material and your own relevant knowledge, assess two policies the Singapore government has used to improve its global competitiveness. [8]

- “Competitiveness”
 - Ability to earn export revenue by producing price competitive exports and innovative products for the global market and attract FDI into the economy.

T1: Supply-side policies to improve global competitiveness

- Example: RIE 2020 - Developing R&D capability
 - Government funds research initiatives via grants or tax-concessions.
 - Deepens the technological capability and competitiveness of Singapore's manufacturing and engineering sectors
 - Increases profitability of MNCs locating in SG to undertake R&D activities \rightarrow Increase in FDI
- AD & AS shifts right \rightarrow actual and potential growth \rightarrow price stability is achieved in the long-run \rightarrow new and innovative products will improve export competitiveness.
- Overall improvement in BOP and competitiveness.

AT1: Limitations

- High opportunity cost – ‘the Government will sustain R&D spending at about 1 per cent of GDP. This is more than the UK ‘

- Uncertain whether R&D will lead to successful outcomes in the long-run.

T2: Exchange rate monetary policy: Depreciation of SGD

- P_x falls in foreign currency → increase in export competitiveness.
- Assuming $PED_x > 1$ → export revenue increases.
- Lower price of domestic capital goods → Increase profitability of FDI

AT2: Limitations

- Increase price of imported factors of production → increases cost of production → fall in AS (shifts up) → imported cost-push inflation.
- Other economies might also follow suit in depreciating their currencies. As a result there will be no change in export competitiveness relative to our competitors.

Synthesis

- Since both policies are effective in different time frames they complement one another.
- SSP is the best policy for competitiveness for SG because depreciation can only be used as temporary measure owing the risk of inflation.

Mark Scheme

<i>Knowledge, Application, Understanding, Analysis</i>		
L1	<ul style="list-style-type: none"> ▪ <i>Answer is mostly irrelevant</i> ▪ <i>Several glaring conceptual errors and/or lack of economic framework</i> ▪ <i>No reference to case material</i> ▪ <i>One-sided response</i> 	1 – 3
L2	<ul style="list-style-type: none"> ▪ <i>Balanced Answer with T-A structure with good scope and depth of elaboration and application to the case context</i> ▪ <i>Good analysis of policies and how competitiveness will be impacted.</i> 	4 - 6
E1	<ul style="list-style-type: none"> ▪ <i>An unexplained conclusion /judgment or mere repetition of points discussed.</i> 	1
E2	<ul style="list-style-type: none"> ▪ <i>Insightful judgement on the overall impact of the policies on competitiveness.</i> 	2

- (d) **Discuss the view that “the growth in standards of living within a country depends almost entirely on its ability to sustain productivity growth”.** [8]

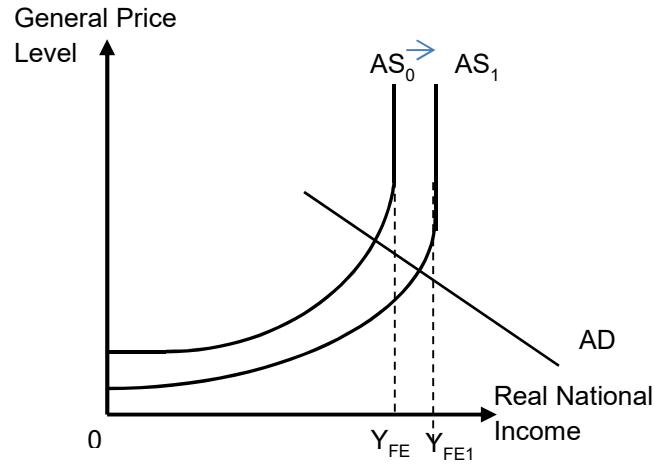
Requirements:

- Recognise that growth in standards of living leads to improvements in material and non-material aspects of well-being.
- Productivity growth leads to sustained economic growth which allows continual increases in real GDP per capita. However, there are exceptions and other factors might contribute to well-being.

Thesis:

- Material SOL is measured by real GDP per capita
- Rising productivity means output per worker increases → increase in productive capacity.
- Increase in AS → actual and potential growth → increase in real GDP per capita.
- Non-material SOL improves → possibly more leisure can be enjoyed if workers are able to produce the same amount of output in a shorter time.

- In the absence of productivity growth, demand-pull inflation can occur when AD is increasing at the vertical section of the AS, reducing the purchasing power of fixed income earners.
- Hence, productivity growth is needed to achieve sustained economic growth, which improves standard of living.



Improvement in productivity

Anti-thesis:

- Possible unemployment problem if firms require fewer workers when productivity increases → fall in non-material SOL.
- Depends on whether the growth that is generated is inclusive → if more productive skilled labour is paid more relative to unskilled workers → widens income disparity → fall in non-material SOL.
- Improvements in SOL may depend on other factors for e.g. demand side reasons such as growth in consumption, investment or exports, since improvements in productive capacity might not be sufficient to generate increases income and employment in the short-run.

Synthesis:

- Whether growth in standards of living depends entirely on productivity growth depends on the state of economy – If economy is near full employment, the only way to achieve growth and improvements in SOL is through an increase in AS.

Mark Scheme

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> ▪ Answer is mostly irrelevant ▪ Several glaring conceptual errors and/or lack of economic framework ▪ No reference to case material ▪ One-sided response 	1 – 3
L2	<ul style="list-style-type: none"> ▪ Balanced Answer with T-A structure with good analysis of productivity and SOL 	4 - 6
E1	<ul style="list-style-type: none"> ▪ An unexplained conclusion /judgment or mere repetition of points discussed. 	1
E2	<ul style="list-style-type: none"> ▪ Justification whether SOL depends almost entirely on productivity growth. 	2

Question 3

Table: 2014 Health Expenditure, Total (% of GDP)

USA	17.1
Japan	10.2
Singapore	4.9

Source: World Bank

- (a) Explain the key economic objectives of a government. [10]
- (b) Discuss whether the need to address market failure arising from merit goods is the main reason for government expenditure in Singapore. [15]

Part (a)

Microeconomic Objectives:

1. Economic Efficiency
 - Allocative Efficiency
 - Ensuring that resources are allocated in a way that maximizes society's net benefit (consumers'+producers' surpluses).
 - Government achieves this by correcting market failure from externalities and public goods.
 - Productive Efficiency
 - Ensuring that the maximum amount of goods and services are produced given the resources.
 - Governments can implement pro-competition policies to ensure markets are competitive.
2. Equity
 - Ensuring that income inequality is low and income is redistributed via progressive taxation and subsidies.
 - Ensuring that prices of necessities are affordable to the poor.

Macroeconomic objectives:

1. Sustained economic growth
 - Ensuring there is both actual and potential growth.
 - Actual growth is measured as the % change in the real GDP. It is achieved by an increase in AD and/or AS. High growth rates reflect improvement in material standard of living as purchasing power of the residents is increases.
 - Potential growth is measured by the increase in productive capacity. It is achieved by increasing the AS such that the full employment level of output increases.
 - Potential growth is necessary for the economy to continue experiencing actual growth without demand-pull inflation.
2. Low unemployment
 - Unemployment refers to a situation where those who are actively seeking work are unable to find a job.
 - Ensuring unemployment is low and at the natural rate allows an economy to operate near its potential output and achieve productive efficiency. Conversely high unemployment leads to social instability and is a strain on the government's budget.

3. Low inflation

- Inflation refers to the sustained increase in the general price level. Low inflation results in price stability.
- Price stability aids in economic decision making, allowing agents to make accurate decisions based on expected price movements. It instills confidence and encourages firms to invest as profits can be accurately predicted.

4. Healthy Balance of payments

- BOP: record of a country's international transactions.
- The goal is to achieve overall equilibrium and to avoid large and persistent deficits in the current and/or financial accounts.
- Stability in the exchange is achieved when the BOP is in equilibrium.

Mark Scheme

<i>Knowledge, Application, Understanding, Analysis</i>		
L1	<ul style="list-style-type: none"> ▪ <i>Answer is mostly irrelevant</i> ▪ <i>Several glaring conceptual errors and/or lack of economic framework</i> 	1 – 4
L2	<ul style="list-style-type: none"> ▪ <i>Only macro or micro objectives explained or undeveloped explanation of both.</i> 	5 - 7
L3	<ul style="list-style-type: none"> ▪ <i>Both macro and micro objectives well-explained.</i> 	8-10

Part (b)**Introduction:**

- Define Merit goods.
- The government spends to achieve both its micro and macro objectives. In terms of achieving efficiency, the main areas of spending are for merit and public goods.

Body:

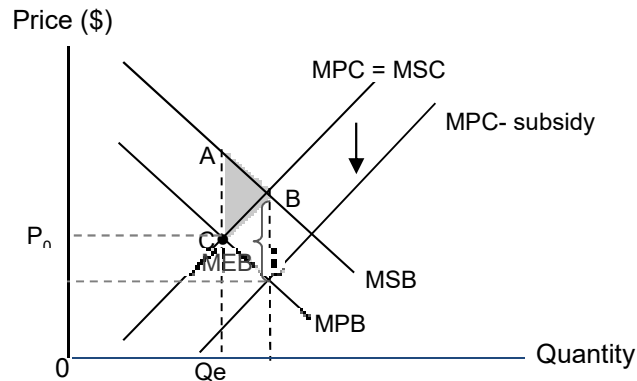
Thesis: Explain how the market fails in the area of merit goods and give examples of government expenditure.

- Eg. Market for healthcare / education
 - From the government's standpoint, healthcare / education is deemed desirable for the people but is under consumed or provided, therefore, as net economic welfare to society is not maximized → deadweight welfare loss arises → need for govt. intervention

Due to positive externality from consumption of healthcare / education

- Eg. in the case of healthcare, when an individual obtains a flu vaccination or health screening for greater health protection, there are external benefits. One person's consumption of healthcare results in external benefits (MEB) in terms of less spread of disease to others, contribution to higher productivity & economic growth thus benefitting the wider society → $MEB > 0$ → $MSB > MPB$.
- Eg. in the case of education, which brings about economic and social benefits to society, over and above the private benefits that the individual receives from his education. To the individual, the private benefits of education include an improvement in his productivity and earnings and allows for his upward social mobility. However, education provides a number of external benefits that is not taken into account by the free market such as higher economic growth and lowered unemployment rate as education enhances a country's economic competitiveness as it improves the quality of the labour force which in turn attracts foreign investors into the country.

- In an unregulated free mkt, producers and consumers, being self-interested, ignore the positive externality and they only seek to maximize private net benefit. So the free mkt eqb output (Q_p) is where $MPB=MPB$ while the social optimal output (Q_s) will be where $MSB=MSC$.
- Hence, too little resources are diverted to the production and consumption of healthcare / education services and a deadweight welfare loss of ABC to society is incurred as the loss in benefits from not consuming $Q_e Q_s$ units of healthcare / education services exceeds the resources saved in not producing $Q_e Q_s$ units of the goods and services, resulting in allocative inefficiency.



Market for healthcare

- ➔ eg. Indirect Subsidies in production of healthcare include subsidising services at polyclinics. In addition, in restructured hospitals, class B and C wards are highly subsidised from 60% to 80%.
- ➔ With a subsidy of an amount equal to the MEB to the producer, the supply curve shifts from MPC to MPC - subsidy. Under-consumption of healthcare is corrected as the quantity of healthcare rises from $0Q_e$ to $0Q_s$ and the positive externality is said to have been 'internalised'. The deadweight loss to society (ABC) is thus eliminated.

Anti-thesis: Explain one other main area of government spending in SG (provision of public good or to achieve a macro-objective)

E.g. Government direct provision of public goods

- Examples of public goods requiring government spending in Singapore
 - E.g: Market for Streetlights / Market for Defence
 - Explain how the example raised fulfils the 2 defining characteristics of public goods and hence warrants govt. intervention
- Public goods are goods that are non-rivalrous and non-excludable, which are not usually supplied through the free market.
 - A good is non-rivalrous when consumption by one person does not reduce the amount available to others. As the supply of a public good is not depleted by an additional user, the marginal cost of serving an additional user is zero. A good is non-excludable when it is impossible or very costly to exclude non-payers from enjoying the good
 - ➔ E.g. Street lighting, as a person's use of light does not reduce the amount of light available for other users, while it would be unfeasible to charge each individual separately based on the amount of light he uses.

- ➔ Eg. National defense, as an additional member in the population will not decrease the amount of protection to the country, and tourists who enter the country will receive the benefits of national defence, even without payment.
- Since the marginal cost of serving an additional user is \$0, efficient provision of public goods ($P=MC$) requires that consumers pay the marginal cost of their consumption which is zero. However, private markets with profit-maximising firms will not supply goods for free. And any price charged above zero will be allocative inefficient.
- As the goods are non-excludable, it is subject to the free-rider problem. As individuals who do not pay for the good enjoy it equally as those who pay for it, they would have no incentive to pay for it no matter how much they personally value it. Demand will not be expressed and firms would also have little incentive to produce a public good. Hence if left to the free market, there will be no provision of the good.
- Explain how direct provision by govt. overcomes the problem of non provision of public goods
 - Without government intervention, public goods simply would not be provided. A *missing market* in this case may indicate a significant loss to society's welfare. For example, the importance of street lighting for the safety of commuters and motorists. The govt intervenes by providing for these goods directly.
 - Eg. National defense is provided by the Ministry of Defence, while street lighting is provided by other public agencies in Singapore eg. LTA and the government funds the provision of these goods from their reserves (that is financed through the taxes that the government collects). In allocating resources to the production of such public goods, govt. has corrected for the inefficiency arising from public goods.

Conclusion and Overall Evaluation:

- While expenditure on merit goods such as education and healthcare has been rising in recent years due to ageing population and the need to develop the skills required in a knowledge-based economy, public goods remain an important reason for government spending due to complete non-provision. This is corroborated in the data on healthcare expenditure in Singapore which ranks the lowest as a proportion of GDP.

Mark Scheme:

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> ▪ Answer is mostly irrelevant ▪ Several glaring conceptual errors and/or lack of economic framework ▪ No reference to case material ▪ One-sided response 	1 – 5
L2	<ul style="list-style-type: none"> ▪ Balanced Answer with T-A structure with good scope and depth of elaboration and application to the case context 	6 - 8
L3	<ul style="list-style-type: none"> ▪ Good analysis of market failure in the area of merit goods and 1 other area. ▪ Supported by examples of government spending in the SG economy. 	9 - 11
E1	<ul style="list-style-type: none"> ▪ An unexplained conclusion /judgment or mere repetition of points discussed. 	1 - 2
E2	<ul style="list-style-type: none"> ▪ A judgment/conclusion supported by reasons / economic analysis and any sound evaluative points 	3 – 4

Question 4

- (a) Explain the benefits of achieving economic growth and low unemployment rate in a country. [10]
- (b) Discuss the view that international trade will help Singapore achieve its economic objectives. [15]

Part (a)**Introduction**

- Define Economic Growth: increase in real GDP on year earlier, where real GDP is the value of final goods and services produced within the geographical boundaries of a country measured at base year prices, eliminating the effects of inflation.
- Define Unemployment rate: proportion of people in the labour force who is willing and able to work but are unable to find work.

Body**Benefits of achieving economic growth****1. Improve standard of living**

- With economic growth, the real GDP of a country increases → real GDP/capita increases → there is a higher level of goods and services available to the average person for consumption.
- Economic growth can also lead to improvements in non-material standard of living, which refers to the non-quantitative or qualitative aspects of standard of living. For example, with higher incomes, people can afford better quality healthcare and this leads to an increase in life expectancy and a fall in infant mortality rates. The ability of society to care more for the environment and those less fortunate also increases.

2. Achievement of other macroeconomic objectives

- Economic growth leads to lower cyclical unemployment → more goods and services are being demanded and produced which will in turn lead to a greater derived demand for labour, hence reducing demand-deficient unemployment/cyclical unemployment.
- Actual growth can also stimulate potential growth which helps to achieve low and stable inflation rate. As national income increases, absolute savings will increase, due to the effect of higher income on induced savings. With an increase in absolute savings, this will cause an increase in the supply of loanable funds. In the long run, the increase in loanable funds will cause interest rates to fall. This, in turn, will provide greater incentive for firms to invest and with greater capital expenditure, allow the potential capacity of the economy to increase. Increases in potential growth (reflected by the outward shift of the aggregate supply curve (AS) can help to achieve higher current and future standard of living and avoid other macroeconomic problems, like inflation.

3. Allows for redistribution of income

- The rise in income brings about extra tax revenues, enabling the government to spend more on programmes to alleviate poverty. This allows for greater redistribution of income → improve SOL for the lower income.

Benefits of achieving low unemployment**1. Higher standard of living**

- Higher material welfare – lower unemployment → more people are employed and earning income → greater ability to consume goods and services
- Higher non-material welfare - Unemployment is commonly associated with various social problems that affects non-material standard of living. It is related to higher incidences of deviant behaviours and crimes, including theft, alcoholism, depression, child abuse and suicides. Stress levels are higher during unemployment as the unemployed are unable to gain unemployment while the employed worry about their ability to keep their jobs. Self-esteem and personal relationships may deteriorate as a result. Greater income inequality can also lead to social instability.

2. Prevents forgone output/income in the economy

- Unemployment results in the wastage of scarce resources that results in a loss of potential output for the economy. This wastage of resources limits the attainment of economic growth, which is a key macroeconomic objective of the government. Output and incomes fall, and less expenditure can be made. Society's material standard of living is compromised as less quantity of goods and services are available for consumption.

3. Prevents strain on government budget

- Government budgets are also affected by unemployment as the government receives less tax revenue and incurs higher expenditure. Lower unemployment – higher tax revenue and lower government expenditure on welfare benefits.
- Government can channel resources to more productive uses e.g. infrastructure, education etc.

Conclusion

- Benefits of achieving economic growth and low unemployment rate include allowing the country to achieve higher SOL, achieving other KEIs, and improving the government budget.

Mark Scheme:

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> - Major lapses and conceptual errors. - Superficial answers without use of economic framework. - Mostly irrelevant answer - Incomplete answers 	1 – 4
L2	<ul style="list-style-type: none"> - Weak scope of explanation – only explained the benefits of EG or low UE rate - Insufficient depth of elaboration – points are stated and not explained - Some minor lapses in analysis 	5 - 7
L3	<ul style="list-style-type: none"> - Good scope – both objectives covered and at least 2 benefits of each objective - Good depth - Well-developed explanation of the benefit 	8 - 10

Part (b)**Introduction:**

- Define International Trade: International trade refers to the exchange of goods and services between countries, involving the use of different currencies and crossing international borders.
- Identify economic objectives:
 - Microeconomic objectives – efficiency and equity
 - Macroeconomic objectives – EG, low UE rate, low inflation rate, and no persistent deficits in BOP

Body:**Thesis: International Trade will help Singapore achieve its economic objectives****1. More efficient use of scarce resources****(i) Allocative efficiency**

- State the Law of CA
- Singapore context: CA in knowledge and capital intensive products, comparative disadvantage in labour and land intensive products.
- Briefly mention the gains → Increased production and consumption based on theory of CA i.e., residents are able to enjoy consumption bundles beyond the PPC → higher material SOL

(ii) Productive efficiency

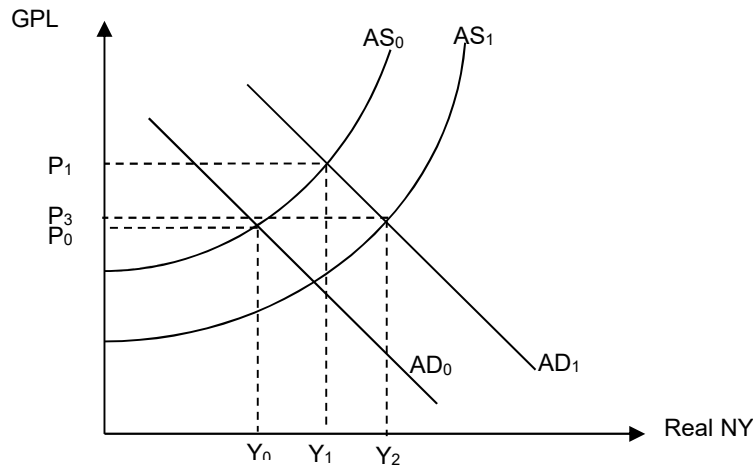
- Production for larger international markets allows firms to enjoy per unit cost reductions from large scale production → Economies of scale → more efficient use of scarce resources
- Singapore context: Production solely for the small internal market limits the extent of iEOS that can be enjoyed by firms

2. Economic growth and lower unemployment rate

- Enlarged export markets → ↑X → ↑AD → k effect → ↑NY (more than proportionate)
- Export capability of the economy attracts MNCs to locate here to leverage on their benefits → increase I/FDI → ↑AD/ ↑AS → k effect → ↑NY → actual and potential growth
- Singapore context:
 - X accounts for around 200% of GDP
 - External demand has a stronger influence on economic growth compared to domestic demand
- ↑ in output → ↑derived demand for labour → ↓demand deficient unemployment.

3. Lower inflationary pressure

- Access to low price imported goods reduces inflationary pressure, especially cost-push inflation from rises in the price of domestically produced raw materials/intermediate products. (AS shifts down)
- Domestic producers are forced to lower their price to remain competitive.
- Context: Singapore is resource poor, and increase access to international markets can reduce prices of imports compared to what can be produced domestically.



Anti-thesis: International Trade will not help Singapore achieve its economic objectives

1. Fluctuations in external demand and external shocks → dampen EG and cause imported inflation

- $\downarrow X \rightarrow \downarrow AD \rightarrow$ more than proportionate \downarrow in NY $\rightarrow \uparrow$ in cyclical U
 - increase in Pm due to supply-side shocks \rightarrow increase in COP \rightarrow fall in AS \rightarrow increase in GPL
 - Context of Singapore: High degree of openness (total trade 3.5x GDP) makes Singapore more susceptible to these shocks e.g. 2008 global economic slowdown, rise in oil prices etc
- Such shocks have become more frequent in recent years due to increased interconnectedness between countries and increased trade flows.

2. Structural unemployment

- Changes in pattern of trade due increase in domestic cost of production \rightarrow loss in CA \rightarrow loss of export competitiveness \rightarrow fall in output in these industries
- Problem of structural unemployment \rightarrow people who are unemployed in sunset industries do not have the skills to work in sunrise industries
- Context of Singapore: Hollowing out of manufacturing base due to emergence of regional low cost producers e.g. Vietnam, Malaysia, China

3. Income inequality

- Export oriented industries \rightarrow rising wages due to higher demand for labour in these sectors VS those that serve the domestic sector and work in import substitution industries and those who are in sunset industries \rightarrow stagnant wages/falling real incomes
- Context of Singapore: Rising income inequality (high gini coefficient) which accompanied our economic growth

4. Unfair trade practices

- Protectionist measures (e.g. tariffs/quotas) or government support in foreign countries e.g. export subsidies, currency manipulation \rightarrow reduce our export competitiveness vis-à-vis foreign countries $\rightarrow (X-M)\downarrow \rightarrow$ reduce gains from trade.

Conclusion and Overall Evaluation

- Given the economic characteristics of Singapore \rightarrow small domestic sector, small population, lack of scarce resources \rightarrow the benefits of trade is likely to significantly outweigh the costs \rightarrow thus helping Singapore to achieve its economic objectives.
- Evidence: strong economic growth for the last 2 decades

- Extent to which international trade will help Singapore achieve its economic objectives on balance depends on policies to limit the disadvantages of trade
 - o Exchange rate policies to address fall in external demand.
 - o Supply side policies to diversify the economy or increase occupational mobility, or to support infant industries to help them compete internationally.
 - o FTAs to curtail protectionism.
 - o Other policies to manage the costs of external shocks e.g. Fiscal Policy and subsidy of wages

Mark Scheme:

Knowledge, Application, Understanding, Analysis		
L1	<ul style="list-style-type: none"> - <i>Conceptual inaccuracies.</i> - <i>Mostly irrelevant answers or incomplete responses.</i> - <i>Lack of use of theoretical framework – superficial analysis</i> 	1 – 5
L2	<ul style="list-style-type: none"> - <i>One-sided answer (no AT – limitations of international trade) – max5</i> - <i>Lack of scope of points discussed – 1 thesis and 1 anti-thesis point, only 2 objectives explained</i> - <i>Lack of depth of analysis – inconsistent use of economic framework in analysis.</i> - <i>Lack of application to the Singapore context.</i> - <i>Lack of linkages to the economic objectives</i> 	6 - 8
L3	<ul style="list-style-type: none"> - <i>Good scope</i> <ul style="list-style-type: none"> - <i>at least 3 objectives explained</i> - <i>at least 2T-1AT or 1T-2AT (3 main points)</i> - <i>Well-developed discussion – consistent use of economic framework in analysis</i> - <i>Good application to the Singapore context.</i> 	9 - 11
Evaluation		
E1	<ul style="list-style-type: none"> - <i>Unsubstantiated judgment on the overall impact of international trade on Singapore’s objectives.</i> 	1-2
E2	<ul style="list-style-type: none"> - <i>An explained judgement on the extent to which international trade helps Singapore achieve its objectives.</i> 	3-4

*****END*****