

Preliminary Examination 2016
General Certificate of Education Advanced Level
Higher 2

ECONOMICS

9732/01

Paper 1

Wednesday 31 August 2016

2 hours 15 minutes

Additional Materials: Answer Paper and Cover Page

READ THESE INSTRUCTIONS FIRST

Do NOT turn over this page until you are told to do so.

Write your Centre number, index number, CG and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

Hand in your answer scripts to each question separately.

Answer all questions.

Begin each question on a fresh sheet of paper.

At the end of the examination, fasten your work for each case study separately.

Attach the cover page to your work for Question 1.

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

This document consists of 7 printed pages and 1 blank page.

[Turn over

Answer all questions.

Question 1 Go Green D...decade

**Table 1: Installed Capacity of Photovoltaic Systems (Solar Panels)
(in Megawatt Peak*)**

	2009	2010	2011	2012	2013	2014
Total	1.9	3.8	5.9	33.3	53.8	99.2
Households	0.1	0.1	0.3	2.2	4.4	7.8
Industrial and Commercial	0.3	1.9	3.7	31.1	49.4	91.4

*Megawatt peak which is typically used as a measure of installed capacity

Source: Energy Market Authority (EMA) of Singapore, 2015

Extract 1: Renewable Energy Policy in Singapore

Renewable energy ("renewables") is energy generated from natural resources that can be replenished. These include solar, wind, geothermal and hydro. There are many factors that contribute to the quest for cleaner energy. Singapore's population is predicted to rise to 6.9million and the city-state wants to make a contribution to global efforts to reduce the impact of human activities on the climate. The high price of oil, over \$100 per barrel in recent years, has also provided an incentive to seek viable alternatives. The government has adopted a consistent set of policies to reduce the carbon footprint of industry and households, firstly by creating greater competition in electricity generation and now through carefully calibrated interventions in the market for renewable sources.

In Singapore, there are limited renewable energy options. There are no hydro resources, wind speeds and mean tidal range are low, and geothermal energy is not economically viable. Solar energy remains the most viable renewable energy option for Singapore. It is clean, generates no emissions and requires no fuel imports. Solar generation takes place during the day, which coincides with peak demand. Being in the tropical sun belt, Singapore enjoys an average annual solar irradiance of 1,150 kWh/m²/year¹.

In anticipation of the deployment of more renewables in the grid as technology improves and prices fall, the government has provided funding for research and development efforts in this area. These include efforts to aid the industry's capability development on potentially promising renewable technologies in Singapore. Energy Market Authority (EMA), Singapore's energy market regulator, is charged with the responsibility to enhance Singapore's market and regulatory framework so as to facilitate the deployment of such renewable energy sources.

Adapted from: *Development of Intermittent Generation Sources*, July 2014

Extract 2: The Electricity Market in Singapore

As Singapore's economy and population grow, so does its energy use. Whether in terms of natural gas or electricity, the country has been using more energy over the years. In 2014, consumption of electricity came up to 46,403.0 GWh². Being a small country, Singapore

¹ Kilowatt hours per square metre per year.

² Gigawatt hours

imports most of the fuel needed to generate electricity to power up the city. Today, about 95 percent of the electricity is produced by burning natural gas, the cleanest fossil fuel. Industrial and commercial users account for 80% of energy use.

Singapore's electricity market was liberalised in 2001 to foster competition and bring about greater efficiency and innovation. Prior to this, the industry was vertically integrated and government owned. The industry is regulated by the Energy Market Authority (EMA). As the regulator, EMA issues licences to companies who are involved in the generation, retail and transmission of electricity and other activities. These companies each play a different role to ensure that homes, offices and industries have a competitive, secure and reliable supply of electricity.

The electricity market is complex but basically consists of two sectors, a contestable sector and a monopoly sector. The former comprises electricity generating companies (gencos), which are privately owned profit makers. Competition has motivated the gencos to switch from oil powered steam generation to cheaper gas-fired plant. The EMA notes that this switch has reduced electricity prices by around 15%.

Gencos are free to invest in new generation capacity but are required to sell electricity to the Singapore Power Assets (SPPA). SP Power Grid Ltd holds a licence from SPPA to transmit electricity to commercial and domestic consumers. Currently there are fifteen generating companies who compete to supply electricity to the natural monopoly, SP Power Grid Ltd, that is responsible for electricity transmission.

The demand for energy is subjected to peak loads. To meet daytime peaks, enough generating capacity is needed and electricity cannot be stored. Conventional generating methods result in surplus capacity and firms have looked at different methods of selling this excess. SP Power Grid Ltd has explored whether different tariffs could be charged for domestic and industrial customers.

Source: adapted from <https://www.ema.gov.sg/Electricity>, accessed on 17 July 2016

Extract 3: Developments in Global Oil and Gas Production

Upstream price reductions have characterised the oil and gas industries since mid-2014. The sharp fall in crude over the past three months has produced an unusual amount of concern that, with inflation already dangerously low across much of the developed world, cheaper oil will worsen the problem.

Such fears are misplaced. To think that lower oil prices are a net negative for the world economy, and particularly for the advanced economies, is to misunderstand the problem with deflation and the cures for it. A falling overall price level, by and of itself, is not necessarily a bad thing.

Yet, while lower oil prices will have a one-off effect on the price level and hence reduce inflation, that should boost growth rather than retarding it. Lower oil prices may hurt capital-intensive extractive industries in the medium term, but they benefit households almost immediately through cheaper petrol and other fuels. An unexpected fall in the general price level raises real incomes.

Whatever is behind the falling cost of crude, the policy message is the same. At the current conjuncture, cheaper oil and loose monetary policy are complements, not substitutes. Central banks, particularly in the eurozone and Japan, have been struggling with preventing

a sustained slide into deflation and economic stagnation. The fall in the oil price has given them a helping hand.

Adapted from: *Financial Times*, July 2015

Questions

- (a) (i) Summarise the change in the installation of solar panels shown in Table 1. [2]
- (ii) Identify **two** reasons that could account for the change in the pattern of solar panel installations. [2]
- (b) (i) Explain a possible reason why the transmission of electricity has been left to a single supplier. [4]
- (ii) Explain why the government of Singapore has introduced competition in the market for electricity generation. [4]
- (c) Assuming that SP Power Grid Ltd. is a profit maximiser, discuss whether SP Power Grid Ltd. can use price discrimination to sell electricity to different households and firms. [8]
- (d) "Cheaper oil prices and loose monetary policy are complements, not substitutes". To what extent do you agree with this assertion? [10]

[Total: 30]

Question 2 Emerging From Crisis – Sluggishly

Table 2: Russia's Terms of Trade, 2010 – 2014

Year	2010	2011	2012	2013	2014
Terms of Trade	100.0	120.8	123.6	116.8	112.1

Source: OECD, 2015

Table 3: Selected Macroeconomic Indicators for Russia, 2010 – 2014

	2010	2011	2012	2013	2014
GDP Growth Rate (%)	4.5	4.3	3.4	1.3	0.6
Trade Balance (US\$ millions)	120,875	163,398	145,076	123,679	134,497
Net Direct Investment (US\$ millions)	-9,448	-11,767	1,765	-17,288	-35,480

Source: OECD, Central Bank of Russia

Extract 4: Winners and losers of oil price plunge

Suddenly the world is awash with oil. The scale of the current oil shock is difficult to exaggerate. As late as October, a "key concern" of the International Monetary Fund (IMF) was the risk of an oil price spike caused by geopolitical tensions. Instead, rising production and weaker demand growth have left suppliers competing to find willing customers. The plunge in oil prices now threatens oil-exporting Russia's living standards and public finances to the point where it will start 2015 as a devalued and hostile nation.

In normal times, the effects of the oil price drop should act as an international stimulus that will nevertheless redistribute income heavily from oil-exporting countries to oil-importing countries. A further boon for many economies is that the fall in fuel prices enables countries to cut fuel subsidies, removing significant pressure from the public finances. But this time, economists are actively debating whether the world has changed and other moving parts — such as falling inflation levels — will throw sand into the works of the usual economic relationships.

So far, so normal. But this time there are more voices than usual suggesting expectations of a global boost are deceptive. Stephen King, chief economist of HSBC, believes lacklustre demand in China, Japan and Europe over the summer may cause households in these countries to save any windfalls they receive. Another reason this time is that a spectre of low inflation stalks many advanced economies. Households and companies prefer to "wait and see" before spending their money.

Source: *Financial Times*, 15 December 2014

Extract 5: Slowdown in the BRIC Economies

China – China has recorded extraordinary rates of economic growth for a very long time – an average of 10% a year for three decades. But it is based on very high rates of investment. When it is so high there's always a danger that many projects will turn out to be wasteful or unprofitable, undermining the finances of the investors themselves and anybody who has

lent them money. The other element in China's rapid growth is exports. That is not so reliable these days as the rest of the world struggles to recover convincingly from the financial crisis. The slowdown is happening. Already this decade, the average growth rate has slipped by more than two percentage points.

Russia – The sanctions imposed by the west, and the anxiety among investors that there might be more, have aggravated a slowdown that was coming anyway. Some US\$85 billion has been pulled out of Russia this year, according to Central Bank figures. Russia is often criticised for having a difficult business environment - red tape and uncertainty about the legal system. The IMF has made the point before that Russia needs a credible rule of business law. Russia's problems have already had an economic impact beyond its borders, notably in Germany. Exports to Russia have fallen sharply, which is one important factor behind Germany's close shave with recession.

Brazil – Another one of the BRIC with clear problems is Brazil, though it poses less of an international danger. Like Russia, it is an economy where commodities exports have played an important role in the successes of the 2000s. In Russia it was oil and gas. Brazil has iron ore and agricultural commodities such as soya, coffee and sugar. Commentators say that both need to take steps to make themselves less dependent on the commodities business. They need to improve their labour competitiveness, he says, and to make themselves more attractive for private investment in other industries.

India – Looking forward, India's economic performance seems to be causing rather less anxiety. Growth has picked up some momentum this year although it is well short of the highs of the previous decade. Many investors have welcomed the new government of Prime Minister Narendra Modi, which took office in May.

Source: BBC, 27 November 2014

Extract 6: India's Economic Revival

India's economy grew 5.7 per cent in the three months that ended in June from the same period a year ago, signalling a gradual revival in Asia's third-largest economy. The higher-than-expected growth figure suggests an improved outlook for an economy that has languished at less than 5 per cent growth for nearly two years. Helping to make macroeconomic conditions better, India's fiscal deficit in the four months ended July had reduced. Also, India's current account deficit was brought down to 1.7 per cent of gross domestic product in the fiscal year ended March, a sharp decrease from the 4.6 per cent in the previous year.

One of the main constraints to economic growth is the considerable backlog of infrastructure projects stalled by a sluggish bureaucracy. Economists also cite the hawkish stance of India's central bank as it has tried in recent months to control inflation.

Since taking office, the new government has moved to allow higher foreign investment in the insurance, military and railroad sectors, and Prime Minister Modi has declared his intent to speed up regulatory approvals for large infrastructure projects. But after three months in power without any radical changes announced, expectations have been tempered with the realisation that the process may be gradual.

Source: New York Times, 29 August 2014

Extract 7: 2014 World Competitiveness Report Ranking

IMD, a top-ranked global business school based in Switzerland, today announced its annual world competitiveness ranking. As part of its ranking of 60 economies for 2014, the IMD World Competitiveness Centre also looks at perceptions of each country as a place to do business. "The overall competitiveness story for 2014 is one of continued success in the US, partial recovery in Europe, and struggles for some large emerging markets," said Professor Arturo Bris, Director of the IMD World Competitiveness Centre. "There is no single recipe for a country to climb the competitiveness rankings, and much depends on the local context."

The US retains the No. 1 spot in 2014, reflecting the resilience of its economy, better employment numbers, and its dominance in technology and infrastructure. There are no big changes among the top ten. Small economies such as Switzerland (2), Singapore (3) and Hong Kong (4) continue to prosper thanks to exports, business efficiency and innovation. Most big emerging markets slide in the rankings as economic growth and foreign investment slow and infrastructure remains inadequate. China (23) falls, partly owing to concerns about its business environment, while India (44) and Brazil (54) suffer from inefficient labour markets and ineffective business management.

Source: IMD, 22 May 2014

Table 4: Singapore Trade Volume, January – June 2014 (S\$ millions)

	Import	Exports
Total	237,985.9	261,342.6
<i>China</i>	27,771.8	31,364.6
<i>India</i>	5,880.9	6,623.8
<i>Russia</i>	4,308.5	381.8
<i>Brazil</i>	1,395.4	778.9

Source: International Enterprise Singapore, 2015

Questions

- (a) (i) Describe the change in Russia's terms of trade from 2012 to 2014. [1]
- (ii) Suggest a possible reason for your observation in (i). [2]
- (b) Account for the claim that the fall in oil prices would "redistribute income heavily from oil-exporting countries to oil-importing countries" (Extract 4). [3]
- (c) Comment on whether there is sufficient data to conclude that "looking forward, India's economic performance seems to be causing rather less anxiety". [6]
- (d) In view of the developments in 2014, assess the likely change in the external value of the Singapore dollar. [8]
- (e) Discuss the alternative policies Russia might adopt to improve its balance of payments position, in view of the internal and external challenges it faces. [10]

[Total: 30]

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CSQ 1: Go Green D...decade

(a) (i) Summarise the change in the installation of solar panels shown in Table 1 (2 marks)

General trend: The installed capacity of solar panels had risen from 2009 to 2014. – 1 mark

Refinement: The increase was especially sharp in 2012.

[Breakdown between domestic and industrial is NOT required]

[Alternative Possibilities]

2 marks

- Total installed capacity of photovoltaic systems (solar panels) has increased from 2009 to 2014. Rate of increase in installed capacity of solar panels for households is lower than the rate of increase in installed capacity of solar panels for industry and commercial uses.

- Generally, the installation of solar panels increased from 2009 to 2014, with the installed capacity of solar panels rising at a faster rate for industrial and commercial sector than for households which rises at a slower rate.

1 mark

- Installation of solar panels by both households and industrial and commercial firms have increased from 2009 to 2014. However, industrial and commercial are installing solar panels at a faster rate than households. (No comment on general trend)

There was a general increase in installation of solar panels from 2009 to 2014 with most coming from industrial and commercial as compared to households. (Phrase on industrial vs households used as explanation).

(a) (ii) Identify two reasons that could account for the change in the pattern of solar panel installations. (2 marks)

One mark for any reason below:

Rise in demand factors:

- Rising price of substitute, which is oil (from Extract 1)
- Increase in population size (from Extract 1)

Rise in supply:

- Improved technology of solar panels (Extract 1)
- Government has provided more funding in R&D (Extract 1)

Accept any two; *better answers should refer to sharp rise in 2012*

(b)(i) Explain a possible reason why the transmission of electricity has been left to a single supplier. (4 marks)

[Define natural monopoly] – 1 mark

- The transmission of electricity has been left to a single supplier, SP Power Grid Ltd which is likely to be a natural monopoly (Extract 2). A natural monopoly refers to a market where economies of scale are so substantial such that long run average costs are falling throughout the entire range of the market demand.

[Explain why SP Power Grid Ltd is a natural monopoly.]

- High fixed costs are incurred in setting up the infrastructure for electricity transmission, as it involves building of a large network of cables to households and industrial areas throughout the country. The fixed cost is very large relative to the marginal cost of supplying the product, and hence the long run average cost (LRAC) curve is falling over the whole range of market demand D_1 . [1 mark]
- Thus, the firm can reap substantial internal economies of scale, where increasing the scale of production leads to a lower LRAC. In this case, the electricity transmission is more cost-efficient if there is a single supplier, than if it were shared between two or more competitors. [1 mark]
- Also, competition may create wasteful duplication if more than one firm laid the network of cables in Singapore. (1)

(b) (ii) Explain why the government of Singapore has introduced competition in the market for electricity generation. (4 marks)

[Impact of competition on gencos] Competition reduces market share of each genco firm, thereby reducing their demand, and increasing their PED. As a result of lower demand for each firm, total revenue of each firm is likely to be lower, thereby reducing the profits.

[How each genco can react to the impact] To increase or protect their profit margins,

- each genco can reduce cost of production through using cheaper sources of fuel (e.g. natural gas) (Extract 2).
- with lower COP, each gencos could also charge lower price for the electricity they produce, thereby increasing quantity demanded.
- With the availability of substitutes and that PED is likely to be > 1 , the increase in quantity demanded could be more than proportionate to the fall in price,
- resulting in higher revenue. This further increases the profit margin of each firm.

[Link to question: Why competition benefits consumers/ society] – 1 mark

When the gencos charge lower prices for the electricity they generate, SP Power Grid benefits by having lower cost of production, and is more likely to charge electricity consumers (households and businesses) lower electrical bills. Indeed, the EMA noted that **electricity prices had reduced** by about 15% (Extract 2), which is likely to benefit consumers.

Macro analysis: shift AS curve downwards – max 1 mark.

Fully theoretical answer – what so bad about a monopoly – 2 marks.

No evidence – cap at 3 marks. -

(c) Assuming that SP Power Grid Ltd. is a profit maximiser, discuss whether SP Power Grid Ltd. can use price discrimination to sell electricity to different households and firms. (8 marks)

[Define price discrimination]

Price discrimination involves selling identical products at different prices for reasons not associated with cost differences.

[Explain why SP Power Grid Ltd can use price discrimination]

Conditions necessary for price discrimination (with evidence from case material)

- The firm must have some price-setting power (i.e. the business is operating in an imperfectly competitive market). SP Power Grid Ltd meets this requirement;
- There must be at least two consumer groups with different price elasticities of demand;
- The firm should be able to identify consumers in each group, and set prices differently for each market segment. Potentially firms and households are different customers.
- The firm must prevent consumers in one group selling to consumers in the other market/segment. Arbitrage (or seepage) may be unlikely between firms and households in the case of SP Power because "electricity cannot be stored".

[Evaluate the forms of price discrimination available for SP Power Grid Ltd to use]

Three forms; first, second, third degree.

Perfect discrimination involves charging each consumer the maximum price he or she is prepared to pay for each unit. Hence, it requires the seller to know exactly the demand curve of each buyer. This is unrealistic as information is imperfect. Therefore it is unlikely to be used by SP Power.

Second-degree price discrimination can take many different forms; e.g. where the firm charges customers different prices according to how much they purchase. It may charge a high price for the first so many units, a lower price for the next so many units, a lower price again for the next, and so on. They are charged progressively less for subsequent blocks of output. SP Power can charge different tariffs based on the volume of sales. However, SP Power Grid Ltd may face capacity limitations; peak load during the day and off-peak demand at night (Extract 3). Customers may not be price sensitive because the demand for electricity is a derived demand.

Third degree price discrimination; a profit maximiser would only benefit from separating the market if each segment had different price elasticities of demand. For example, if household demand was price elastic, lower prices would lead to a more than proportionate increase in quantity demanded and therefore an increase in revenue. This, as mentioned above, is unlikely in the case of electricity as the demand for electricity is likely to be price inelastic for both household and industrial or commercial users, due to the absence of close substitutes and electricity being a necessity. Therefore, without different price elasticities of demand, although SP Power Grid Ltd. may have an incentive to discriminate, it is unlikely to be able to increase profit by charging households and firms different prices.

[Conclusion]

Price discrimination could raise costs for firms which could be a sensitive issue in an export based economy. Utilities may be considered as a basic necessity and price differentials could raise issues of equity. As discussed in part b (i) SP Power is a natural monopoly and its pricing

policy is subject to public scrutiny. Therefore, with regulation of the firm by EMA, it may not be able to practise price discrimination eventually. Its marginal costs are almost zero and it has monopsony power over the private generators, therefore the assumption of profit maximising is unlikely to be valid in the real world.

Level	Knowledge, Application, Understanding, Analysis	Marks
L3	The answer explains rigorously the conditions necessary for price discrimination to operate, with pertinent application to the case and <u>evaluates</u> the forms of price discrimination available for SP power to use. A judgement, supported by cogent argument, has been made.	7 - 8
L2	The writing conveys knowledge and understanding of the conditions necessary for price discrimination to operate, with some pertinent application to the case and/or evaluates the forms of price discrimination available for SP power to use, but is limited in scope or depth.	4 - 6
L1	Basic knowledge of price discrimination is shown but application or links to the case are absent or too vague.	1 - 3

(d) "Cheaper oil prices and loose monetary policy are complements, not substitutes". To what extent do you agree with this assertion? (10 marks)

General approach

There are many possible approaches to answer this question. One strongly analytical way would be to use an AD/AS as a central element of the answer.

Introduction: Identify the economic problems – deflation and low rates of economic growth.

There is a widespread fear of deflation in many economies; EU/Japan

Thesis: They are complements

[Explain how cheaper oil prices and loose monetary policies each works and how both can work together to reduce the above problems]

Impact of cheaper oil

- Cheaper oil should reduce the costs of production. Oil is used in a wide range of industrial uses.
- AS curve shifts down [*refer to a diagram*].
- This could put downward pressure on prices and CPI. This assumes lower costs are passed on to consumers.
- The demand for oil is likely to be relatively price inelastic in the short run; a fall in price reduces total revenue and total consumer expenditure. Thus real incomes rise (Extract

3); expenditure of other goods and service may rise (movement along AD curve) – refer to a diagram.

- Cheaper fuel may increase the demand for various forms of travel. Cross price elasticity suggests that demand and price change may be negatively related for goods that are complements. For example, the fall in oil prices might lead to an increase in the demand for cars. This may be important in raising consumption in the current global context where many economies face weak patterns of aggregate demand.

Impact of loose monetary policy

- Cars could be classified as big ticket items. “Loose monetary” policies covers a whole array of strategies used in Europe and N. America. One of the main strategies has been the reduction in interest rates. As the cost of borrowing is reduced, in theory, should stimulate demand for investment and consumer goods.
- However there remains a risk that lack of confidence may inhibit increased consumption and investment despite lowered interest rates. There is a global problem of weak demand (Extract 3).

Link to thesis statement

- In this way the policies are complementary. Lower oil prices, may lead to lower costs across a wide section of the economy and if these cost reductions are passed on to consumers, an increase in aggregate demand may be expected.

Anti-thesis: They are substitutes

[Explain when cheaper oil prices and loose monetary policies may not reduce the above problems]

“Drag” by falling oil prices.

- As mentioned in Extract 3, falling prices have led to upstream problems and failing firms may result in rising unemployment.
- Falling oil prices may have a contagion effect. The lower prices expose many firms in the oil and marine sector to falling revenue and profits.
 - In some cases falling revenues may lead to default on loans. In a capital intensive industry bank loans may have been used to purchase capital equipment.
 - Falling revenues in the oil industry have led to a rise in “non-performing loans” in the banking sector.
- This could lead to multiplier effects and further declines in consumer and producer confidence, thereby reducing C, I, and therefore AD.
- The world currently relies on oil and its price may be a barometer of confidence; falling prices may send a negative message that cannot be countered by ‘loose monetary’ policies.

Evaluative Conclusion (make a judgement)

- In theory, falling oil prices and loose monetary policies are complements. Extract 3 concurs with this assertion (To think that lower oil prices are a net negative for the world economy, and particularly for the advanced economies, is to misunderstand the problem with deflation and the cures for it.)
- However, low consumer and business sentiments due to falling oil prices and thereby deflation could erode the theoretical benefits of loose monetary policy.

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- Conclusion: it is not persuasive that falling oil prices and loose monetary policies are complements.
- Implications: Governments could consider further policies, e.g. expansionary discretionary fiscal policy to boost demand and prices.

Level	Knowledge, Application, Understanding, Analysis	Marks
L3	The writer displays a good understanding of monetary policy and the influence of cheaper oil. The question is unambiguously answered (agreement).	7 - 8
L2	The writing reveals a less than thorough understanding of monetary policy and the influence of falling oil prices.	4 - 6
L1	A poor grasp of the key concepts is reflected in the response.	1 - 3

CSQ2: Emerging from Crisis - Sluggishly

(a)(i) Describe the change in Russia's terms of trade from 2012 to 2014. [1]

Russia's terms of trade worsened from 2012 to 2014. [1 mark]

(a)(ii) Suggest a possible reason for your observation in (i). [2]

Establishing the measurement or definition of terms of trade (1 mark)

Terms of trade is measured by the ratio of price index of exports to price index of imports.

Suggesting possible reason for worsening of terms of trade (1 mark)

- Extract 1 says that Russia is an oil exporting country. As prices of oil declined, Russia's export prices could have reduced. Assuming that there is no change in prices of imports, terms of trade would have worsened

(b) Account for the claim that the fall in oil prices would cause income to be "redistribute income heavily from oil-exporting countries to oil-importing countries". [3]

Establishing the nature of oil (1 mark)

Oil is an essential raw material in production processes. With a given change in oil prices, quantity demanded is likely to change less than proportionately. Demand for oil is said to be price inelastic.

Explain the resulting change in total revenue for producers and total expenditure for consumers (2 marks)

As a result of fall in global oil prices, quantity demanded will increase less than proportionately, leading to an overall fall in producers' total revenue. As oil exporters, countries such as Russia would be likely to experience a fall in their export revenues. Conversely, oil consumers, such as the oil importing countries of China is likely to experience a fall in their import expenditures.

As a result of the exporting countries earning less and importing countries spending less, the fall in oil prices is seen as a redistribution of income from the oil exporting countries (i.e. the producers) to the oil-importing countries (i.e. consumers)

Answer that postulates a fall in DD leading to fall in TR awarded max 2 marks. It is theoretically correct but Extract 4 says that demand grows weakly.

(c) Comment on whether there is sufficient data to conclude that "looking forward, India's economic performance seems to be causing rather less anxiety". [6]

Establishing yardsticks:

To show that an economy is "causing less anxiety", one needs to assess its performance in terms of its four macroeconomic goals and income inequity levels. The four macroeconomic goals are: sustained economic growth, low unemployment rates, low and stable inflation, and healthy balance of payments (BOP) positions

Thesis: Data to show that India's economic performance might be causing less anxiety

Anti-Thesis: Data to show that India's economic performance may not be doing as well as claimed and other data required to make overall judgement.

- **Sustained economic growth:** Extract 3 indicates that India's economy had grown by 5.7 percent in the first quarter of 2013. Economic growth is likely to be sustained through the optimism of the "investors". When investment expenditure is carried out, over the long run, capital accumulation occurs, increasing the productive capacity of the economy, bringing about potential growth to the Indian economy.
- **Healthy BOP.** Extract 3 also indicates that current account deficit had been reduced sharply (to 1.7 percent of the GDP in FY2013 compared to 4.6 percent in FY 2012.)
- **Low unemployment:** sustained economic growth may indicate that demand for labour may be increased to support the production of more goods and services. This could lead to lower unemployment rates. (contextual knowledge)
- **Low and stable inflation:** with capital accumulation and increase in productive capacity, demand-pull inflationary pressures due to increase in AD could be absorbed, reducing inflation rates in India.

- **Evidence of less growth:** Extract 3 argues that infrastructural developments could be slower due to government red tape. This has also deterred some foreign direct investments (FDI). Coupled with "inefficient labour markets" and "ineffective business management" (Extract 4), India's growth in FDI and domestic investments may further slow due to the loss of international competitiveness.

[Link to theory] With slower growth in investment expenditure and government investments, growth in AD might be slower and results in slower actual growth rates. Slower investment expenditure could also lead to slower potential growth rates over the long run.

These factors could also lead to higher costs of doing business in India, leading to the erosion of international competitiveness. This is not helpful to attracting FDI into India. Thus, despite current accounts deficits being reduced, the lack of attractiveness to businesses could reduce capital inflow into India, thereby not improving the BOP position.

- **Other information needed**
[Point] No explicit information on inflation rates and unemployment in India.

[Explanation] Inflation rates determine the change in cost of living of people in a country and directly influences their material standard of living. Unemployment rates measure the proportion of people who are willing to work but are not employed.

[Example / Evidence] Extract 6 mentioned that inflation rates had to be controlled, suggesting it is on the high side. Unemployment rates might not reduce if the economic growth is technology driven and does not demand for more labour.

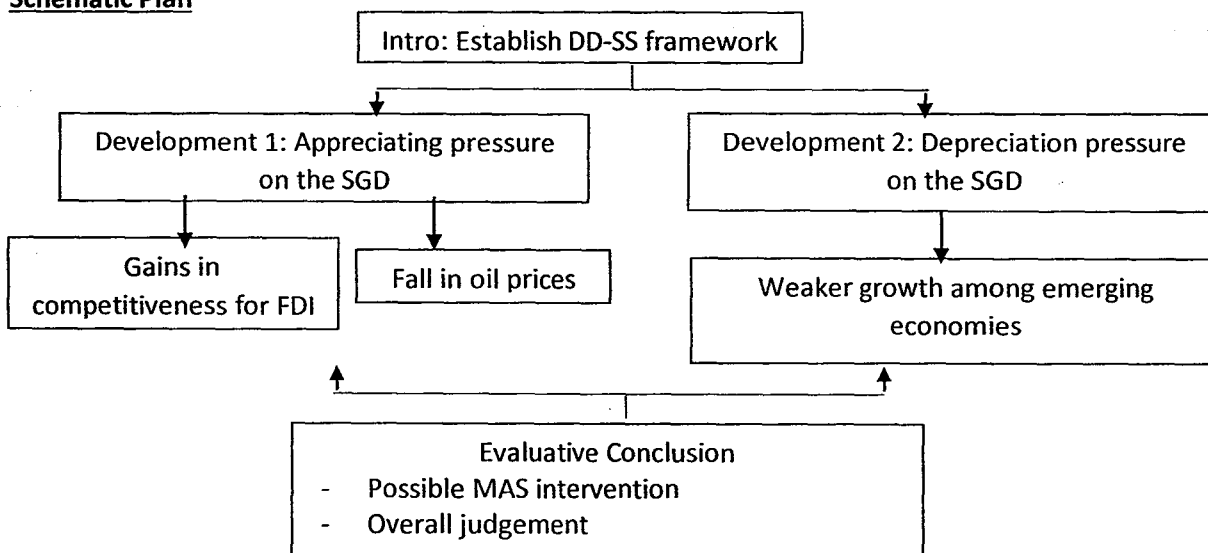
[Link] Therefore more data required.

Conclusion: Overall, there are signs that point towards a more positive economic outlook for India as well as those that show that this optimism could be limited. Also requires data on unemployment and inflation. Therefore, there is insufficient information in the data for us to conclude that India's economic performance would cause less anxiety.

Marking Scheme		
Level	Knowledge Understanding, Application and Analysis	Marks
2	<p>For answers that show a balance in analysing evidence of both a more optimistic outlook for India's economy as well as those that show limited optimism.</p> <p>Well-balanced analyses (2 vs 2) with good use of evidence obtain up to 4 marks.</p> <p>Answers that unevenly present both sides of the arguments (2 vs 1 point or 3 vs 0) can get up to 3 marks</p> <p>Answers that attempted to explain the evidence but lacking in completeness / accuracies are capped at 3 marks despite being balanced.</p> <p>Answers made up of pure contextual knowledge of far-fetched inference are capped at 3 marks.</p> <p>To get 5 marks, anti-thesis should contain both evidence that point towards lower FDI growth and inadequate data on unemployment and/or inflation.</p>	3 – 5
1	<p>For answers that are mere listing of evidence, even if they represent both perspectives.</p> <p>Or if answers are descriptive.</p>	1 – 2
E	For answers that gain at least 4 marks, provide a good conclusion based on a balanced analysis.	1

(d) In view of the developments in 2014, assess the likely change in the external value of the Singapore dollar. [8]

Schematic Plan



Suggested Answers	Comments
<p><u>Introduction</u> External value of the SGD is determined by the demand and supply of the currency. The various global economic events that had occurred in 2014 would affect the external value of the SGD.</p> <p><u>Development 1: Appreciating pressure on SGD</u></p> <p><u>Gains in Competitiveness for FDI</u> According to Extract 4, Singapore's international competitiveness seems to have strengthened, driven by "business efficiency" and "innovation". This increases the scope of profits for firms that establish themselves in Singapore. As a result, FDI into Singapore could increase, raising the demand for Singapore dollars and exerting an appreciating pressure on the SGD.</p> <p>However, other economies e.g. Hong Kong and the US are also competitive, which could reduce the growth in FDI flowing into Singapore. Also, the uncertain global economic growth due to slow growth in emerging markets could cause some firms to hold back on conducting FDI in other countries, including Singapore. As stated in Extract 1, companies may prefer to "wait and see" before spending their money.</p> <p>As stated in part (b), fall in oil prices would reduce the expenditure by oil importers such as Singapore. As such, the amount of foreign currency (USD) required by Singaporean companies to purchase oil is less. The quantity of SGD required to be given up is less, thus reducing the supply of SGD. This exerts an appreciation pressure on the SGD.</p> <p>Also, with the fall in price of crude oil and hence the cost of production, the price of Singapore's refined oil is likely to fall too. Less SGD is required to import SG's refined oil. Demand for SGD might fall, dampening the appreciation pressure.</p> <p>Given that Singapore hosts a large petrochemical industry for re-exports, the volume of crude oil imports is likely to be high for Singapore. Therefore the significant fall in oil prices is likely to cause a relatively large fall in the supply of SGD and exert a significant appreciation pressure on the SGD.</p> <p><u>Development 2: Depreciation pressure on SGD</u></p> <p><u>Weak growth among emerging markets</u> Growth among the emerging markets is generally weaker in recent years. Furthermore, Extract 1 says that "the world struggles to recover from the financial crisis". As income growth among Singapore's trade partners weakens, ability to purchase foreign goods and services in these markets (including those from Singapore) weakens. SGD, being a derived demand for Singapore's exports, may experience a fall in demand.</p> <p>Among the BRIC countries, China has the highest demand for Singapore's exports (Table 2). Furthermore China is still growing at about two percentage points lower than 10 percent. On the other hand, economies that have the lowest rates of growth (Brazil and Russia) have much lower export demands from Singapore. Therefore, Singapore's export demand is unlikely to fall, but continue to increase</p>	<p><i>Establishes a framework for analysing changes in ER.</i></p> <p><i>1st Point of argument</i></p> <p><i>Evaluation</i></p> <p><i>2nd point of argument</i></p> <p><i>Evaluating using case materials</i></p> <p><i>Evaluation using contextual knowledge</i></p> <p><i>Anti-thesis point of argument</i></p> <p><i>Evaluation using data</i></p>

<p>at a slower pace. This results in demand for SGD to be increasing, exerting an appreciation pressure.</p> <p>Evaluative Conclusion</p> <p>However, we know that the Monetary Authority of Singapore maintains control over the SGD. The long term policy for the SGD is to maintain a gradual appreciation to prevent export price competitiveness from being eroded too quickly. Should the MAS find the appreciation of the SGD eroding Singapore's export price competitiveness too excessively, it could purchase foreign exchange reserves and sell SGD. This increases the supply of SGD and reduce the external value of SGD or to prevent it from appreciating excessively.</p> <p>Therefore, notwithstanding the overall appreciating pressure, SGD may appreciate by a limited extent. Or, if the MAS deems necessary to defend the price competitiveness of SG's exports, it could even adopt a policy to prevent the SGD from appreciating.</p>	<p><i>Overall evaluation using contextual knowledge of central bank intervention.</i></p> <p><i>Judgement</i></p>
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Marking Scheme

Level	Knowledge Understanding Application and Analysis	Marks
3	<p>For a well-balanced answer that analyses both appreciating and depreciating pressures on the SGD with sufficient economic rigour and good use of case materials.</p> <p>Answers gaining top mark must fulfil the above criteria and provides evaluative conclusion, leading to a substantiated judgement.</p>	7 – 8
2	<p>For answers that may be balanced, with good use of evidence, but insufficient economic rigour – i.e. an under-developed analysis</p> <p>For answers that are balanced, but lacking in a good use of evidence. Answers that are fully theoretical are capped at 4 marks.</p> <p>For answers that are lop-sided in nature, failing to consider both appreciating and depreciating pressures adequately.</p> <p>One-sided arguments are capped at 4 marks. Those that are one-sided but consider the role of MAS could gain up to 5 marks.</p> <p>Answers lacking in scope – do not have at least 3 points of valid analysis on why SGD may appreciate / depreciate taken from the case, but with balance, would be capped at 6 marks.</p> <p>No judgement cap at 6 marks.</p>	4 – 6
1	<p>For descriptive answers without economic rigour or answers that did not attempt to address the question. Such answers tend to reflect a lack of awareness of the a DD-SS approach to ER determination.</p> <p>Very narrow scope – just one event from 2014 analysed with economic tools – cap at 3 marks.</p>	1 – 3

(e) Discuss the alternative policies Russia might adopt to improve its balance of payments position, in view of the internal and external challenges it faces. [10]

[Establishing Framework]

- Two main components of BOP are current account and capital / financial account.
- Policies to improve positions in both account would therefore improve BOP position.

[Establishing changes in BOT and net direct investments]

- Changes in BOT: from 2011 to 2014, trade surplus seems to be shrinking (Table 2). This means that export revenues may not be growing as fast as import expenditure.
- Changes in net direct investments: from 2011 to 2014, net direct investments is negative, suggesting that there is more long term capital flows out of Russia than the capital inflows. This suggests that the international competitiveness of Russia seems to be weaker compared to other countries.

Development 1: Identify Challenges

External

Fall in global oil prices. Fall in X

Internal

Loss of competitiveness for FDI. Bureaucracy / inefficiencies → business costs are higher → profits reduced.

Development 2: Propose Solutions

Improve trade balance

Improve net capital inflow

Increase X

Reduce M

Improve price competitiveness

- Improve productivity / reduce unit COP. (Through increasing technological advancement / innovation (Extract 7))
- Depreciate ER (Russian roubles) – but considered protectionist and invites retaliation?

Diversify economy – less reliance on oil & gas (Extract 5)

- But takes time to develop new industries.

Improve quality of exports / move up value chain

- E.g. downstream products of petrochemical
- Time lags.

Protectionist tools + ER depreciates

- Drawbacks: retaliation, reduce material SOL

Increase scope for profits

Reduce business costs

Reduce bureaucracies + inefficiencies

- Extract 5. Reduce red tape, build credible rule of business law.
- Improve overall efficiencies (e.g. small economies Switzerland, SG, HK)) through productivity improvements.
- Theoretically: Lower corporate tax (but budget deficit?); Improve efficiency of banking system / increase money supply → reduce cost of borrowing; Labour market reforms → reduce wages (but political acceptance?)

Reduce scope

Build confidence of growing economy

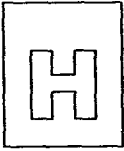
- Extract 5. Reduce red tape, build credible rule of business law.

Evaluative conclusion

It is very difficult to improve overnight. But despite the long time lags, Russia should start now. Tackling the internal challenges may help Russia address the external challenges in the long run. By building the credibility of the business law to attract more FDI, Russia can improve the current account too as FDI brings about transfer of technology which can help to improve price and non-price competitiveness of Russian exports, and in turn improve balance of trade. The increased flow of FDI may also support Russia's efforts to diversify the economy.

Marking Scheme

Level	Knowledge, Understanding, Application and Analysis	Marks
3	<p>Answers in this category should fulfil the following characteristics:</p> <ul style="list-style-type: none"> Identify the internal and external challenge (need not have a separate paragraph for it, could be embedded in the analysis of policies) Have a framework on how the policies suggested could help Russia improve BOP (price / non-price competitiveness; competitiveness for FDI by increasing scope for business profits) Explanation has economic rigour. Provides limitations and challenges in effectiveness of policies. 	7 – 8
2	<p>Answers this category may possess the following traits:</p> <ul style="list-style-type: none"> Some localised conceptual errors, Arguments are not structured well and this hinders logical development of analysis. This may be due to a lack of framework in anchoring arguments. Lack of considerations on the limitations and challenges to the policies. May not have shown awareness of the internal and external challenges. Insufficient use of evidence. No evidence – fully theoretical max 5 marks. Limited scope – up to 2 policies explained in entire answer max 5 marks. 	4 – 6
1	Descriptive answer that does not answer the question.	1 – 3
E	<p>Accurate and insightful evaluative points relating to case and context, pointed out from case materials or contextual knowledge could earn up to +1.</p> <p>A fully developed evaluative conclusion, with judgement and weighing on the alternative viable policies can get up to +2.</p>	+1 – 2



Preliminary Examination 2016
General Certificate of Education Advanced Level
Higher 2

ECONOMICS

9732/02

Paper 2: Essay Questions

15 September 2016

2 hours 15 minutes

Additional Materials: Answer Paper, Cover Page

READ THESE INSTRUCTIONS FIRST

Do not turn this page over until you are told to do so.

Write your centre number, index number, name and CG on all the work you hand in.

Write in dark blue or black pen on both sides of the paper.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **three** questions in total, of which **one** must be from Section A, **one** from Section B and **one** from **either** Section A or Section B.

Begin each essay on a separate sheet of answer paper.

At the end of the examination, fasten all your work securely together with the cover page.

Write the number of the questions attempted on the cover page.

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

This document consists of 3 printed pages and 1 blank page.

[Turn Over

Answer **three** questions in total.

Section A

One or two of your three chosen questions must be from this section.

1 The cost for National Day Parade (NDP) 2016 held at the Sports Hub is an estimated S\$39.4 million. Approximately 275,000 Singaporeans are expected to be able to view the preview shows and actual NDP 2016 in person at the Sports Hub. The NDP will also be broadcast 'live' on all free-to-air channels on Aug 9.

- (a) Explain whether the
- (i) viewing of the NDP at the Sports Hub
 - (ii) 'live' broadcast of the NDP
- is a public good. [10]
- (b) Assess whether market failure arising from public goods is the main reason for the Singapore government's spending in various markets. [15]

2 In 2014, the price of electricity has risen steeply to pay for the government's policies to tackle climate change. The price of household electricity is estimated to rise by as much as 40 per cent while medium-sized businesses is estimated to pay as much as 77 per cent more for electricity by the end of the decade. Meanwhile, the Office for Budget Responsibility forecasts that the UK economy will grow at least 2 per cent each year until 2020.

Source: *The Telegraph*, 14 December 2014

Using economic analysis, discuss the likely impact of these events on UK households and firms. [25]

3 Instead of engaging in price wars, firms in the airline industry are currently focusing on improving their profitability. Mergers and strategic alliances are slowly becoming the norm for airlines who are focusing on cost cutting and excess capacity reduction, in order to combat business risks arising from increasing fuel prices and recession.

- (a) Explain the possible factors that airlines consider when they make rational decisions to merge. [10]
- (b) Discuss whether firms' strategies are more dependent on their objectives or the business risks. [15]

Section B

One or two of your three chosen questions must be from this section.

- 4** Given our economy's heavy dependence on external demand, the weaknesses and uncertainty in the global economy will pose strong headwinds. Our current business conditions are difficult and uncertain. Many of our firms are facing increasing cost of production from rising manpower costs and tighter financing.

Adapted from Singapore Budget Speech 2016

Discuss how the Singapore government should respond to the above. [25]

- 5 (a)** Explain how fiscal and monetary policies can be used to influence the circular flow of income. [12]
- (b)** In recent years, we have noted that many governments run budget deficits. Discuss whether governments should be concerned with a budget deficit. [13]

- 6** "The economic story of the past quarter century was the rapid advancement of globalisation. It is clear from the results of the Brexit vote that there is a large backlash against the results of globalisation so far. Native-born workers without college degrees are venting their frustrations with immigrants and with factory jobs outsourced abroad that result in structural unemployment."

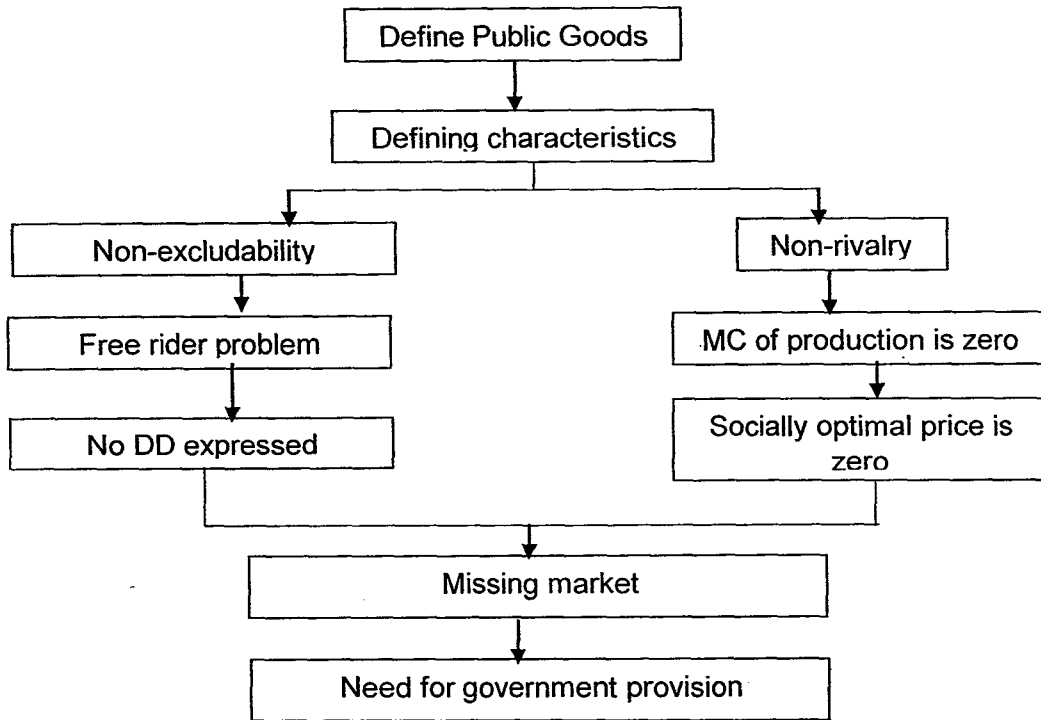
Source: *The Sydney Morning Herald*, 26 June 2016

- (a)** Explain how the rapid advancement of globalisation has resulted in greater income inequality within a country. [10]
- (b)** Discuss whether protectionism is the best solution for tackling unemployment and income inequality. [15]

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Essay Question 1

Part (a)

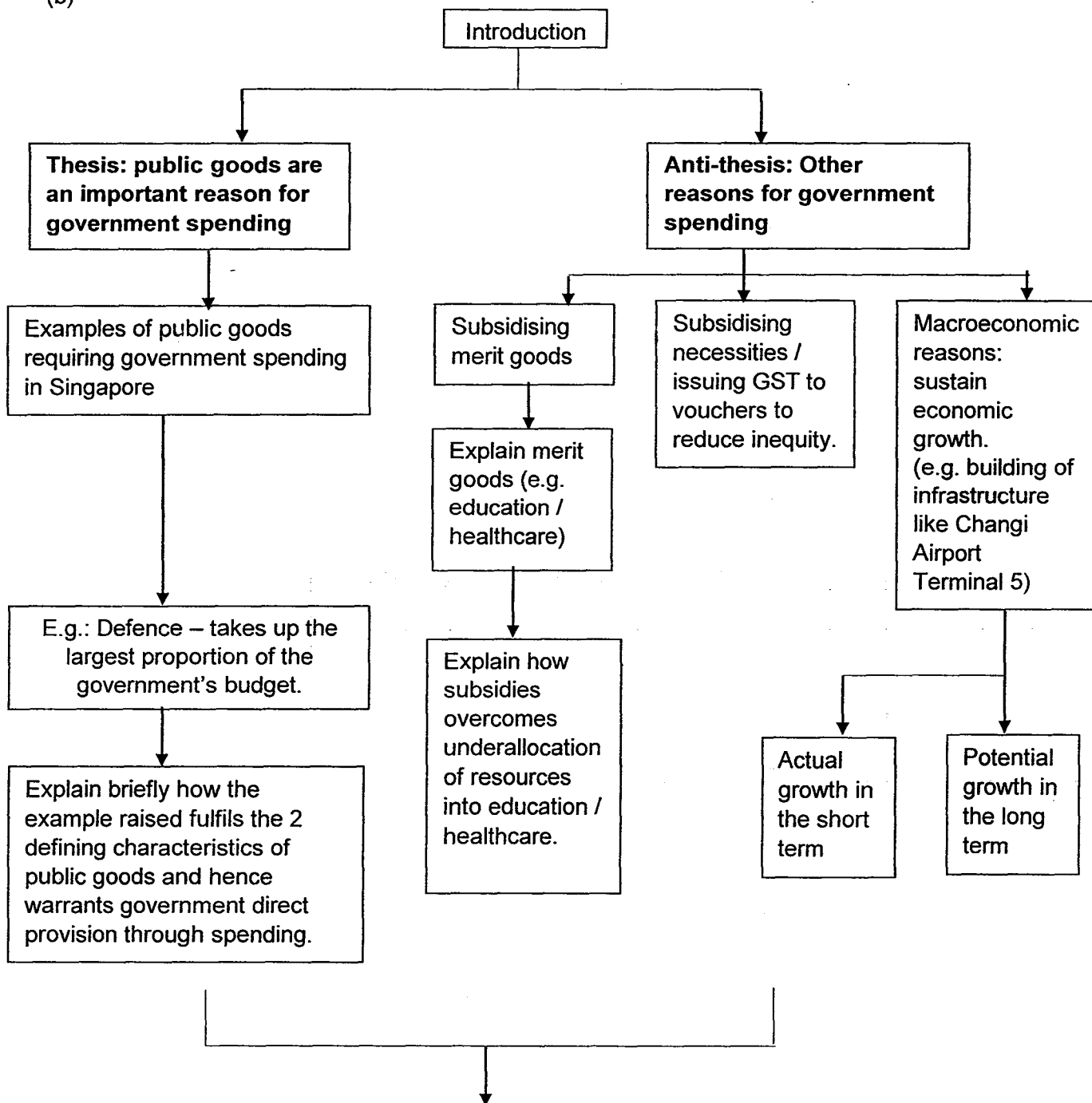


	Viewing NDP at Sports Hub	Live broadcast by Mediacorp
Non-excludability	Excludable because those that do not hold on to a ticket cannot enter the sports hub to view the NDP.	Non-excludable because near impossible to prevent anyone from tuning in to free-to-air channels by mediacorp to watch the NDP live.
Non-rivalry	One seat taken up by a viewer denies another person from taking up that seat to view the NDP → Rivalrous . Marginal cost of admitting one more spectator is positive (non-zero).	Non-rivalry because watching of the NDP over free-to-air channels by one individual does not deny another from tuning in to the same channel to watch the NDP.
Public good?	No. Private good. Because it is both excludable and rivalrous.	Yes. It is both non-excludable and non-rivalry.

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	Thorough explanation of the defining characteristics of public goods. Able to apply these defining characteristics to analyse whether NDP viewing at the sports hub and live broadcast are public goods.	7 – 10
L2	Insufficient explanations of whether both viewing in person and live broad casts are public goods. Answers in this range may show the following characteristics: - Analyse <i>either</i> of the concepts of excludability <i>or</i> rivalry	4 – 6

	<p>- Analyse <i>either</i> of the markets of viewing NDP in person or live broadcast.</p> <p>Theoretical explanation of public goods, without the ability to apply to the markets in question are capped at 4 marks.</p>	
L1	Inability to explain public goods satisfactorily, resulting in a descriptive and incomplete answer.	1 – 3

(b)



Evaluative Conclusion

- Public goods is an important reason for government spending in Singapore.
- However, it cannot be considered as the main reason because there are many other important reasons behind government spending in Singapore.
- These include merit goods that government wants to encourage the public to consumer, as well as to ensure equity and long run growth.

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	Balanced and rigorous argument of why public goods are not the only reason why the Singapore government spends. At least 2 other reasons behind government spending well explained.	8 – 10
L2	Under-developed response to question: <ul style="list-style-type: none"> - Answer does not further substantiate why public goods are important reasons why the Singapore government spends on goods and services. (i.e. only 2 other reasons or more on government spending on goods and services) - 1 further substantiation of the public goods phenomenon in Singapore + 1 other reason why the Singapore government spends on goods and services. - Underdeveloped economic rigour on both sides of the argument. 	5 – 7
L1	Answers in this range tend to stop at a list of assertions, or the arguments are made without economic reasoning.	1 – 4
Level	Evaluation, Synthesis	Marks
E2	Insightful, evaluative comments supported by economic or contextual analysis.	3 - 4
E1	Statements not based on economic or contextual analysis.	1 - 2

EQ2

Introduction

- Provide background information. Establish that the demand for electricity is a derived demand.
- State approach

Body (1) – Explain PED and YED concepts, Apply to context

- Define PED and determine the likely PED for electricity.
- Define YED and apply the concept to explain the likely impact of an expected increase in future income on the demand for different types of goods.

Body (2) – Explain how an increase in price of electricity and expected increase in future income can impact total consumer expenditure on electricity

- Analysing the market for household electricity, recognise that the increase in price of electricity due to government policy will decrease supply.
- [Illustrate with diagram] Explain how given a fall in supply, total consumer expenditure increases since demand for electricity is price inelastic.
- Explain how an expected increase in future income is likely to increase demand for electricity and hence total consumer expenditure.
- Analyse the combined effects.

Body (3) – Explain how an increase in price of electricity and expected increase in future income can impact total revenue for different firms, which is also consumer expenditure on different markets

- Recognise that the increase in price of electricity will increase costs of production and decrease supply for goods and services in general.
- Recognise and explain that given a fall in supply, the impact on total revenue will depend on PED. (summarise since it is explained earlier)
- Explain how given an expected rise in future income, total revenue
 - decreases for an inferior good
 - increases by a small extent for a normal necessity
 - increases by a large extent for a normal luxury
- Analyse the combined effects. For combinations where the outcome is uncertain/ambiguous, suggest a likely outcome based on the extent of the shifts in demand and supply.

Evaluative conclusion

- Is the impact on households or firms likely to be greater?
- Are there any factors that may affect the extent of the impact?

2016 Preliminary Examination
H2 Economics Suggested Answers

Level		Knowledge, Comprehension, Analysis and Application	Marks
L3	For an answer that exhibits rigorous explanation of how PED and YED can affect the impact of a rise in price of electricity and expected increase in future income on total consumer expenditure and total revenue, and analyses the combined effects. Answer is well organised and uses appropriate economic diagrams.		15 - 21
L2	For a developed answer that applies PED and/or YED concept to explain the impact of a rise in price of electricity and expected increase in future income on total consumer expenditure and total revenue, but fails to deal with the combined effects.		10 - 14
L1	For a descriptive and superficial answer that briefly explains the impact of a rise in price of electricity and expected increase in future income on total consumer expenditure and total revenue, with no reference to elasticities.		1 - 9
Level		Evaluation, Synthesis	Marks
E2	Insightful, evaluative comments supported by economic or contextual analysis.		3 - 4
E1	Statements not based on economic or contextual analysis.		1 - 2

EQ3

(a)

Introduction

- [Explain what rational decision is in the context of an airline merger] Assuming that the airline firms seek to maximise profits, the firms will weigh the marginal private costs of the merger against the marginal private benefits.
- [State approach] This essay seeks to explain the factors that influence airlines' decision to merge, which are essentially the marginal private costs and the marginal private benefits of an airline merger.

**Body 1:
Marginal Private Benefit
– Increase revenue from
the increase in market
share**

Explain how the merger can increase the airline's market share → increase the firm's demand and make the demand curve more price inelastic → greater market power → increase revenue

**Body 2:
Marginal Private Benefit – Cost
savings from reaping internal
economies of scale**

Explain how the merger can allow the airline to expand its scale of production and reap greater internal economies of scale → lower LRAC. Define and give examples.

- e.g. marketing economies such as bulk purchase of aircrafts or lower unit costs of advertising.
- e.g. technical economies arising from greater efficiency of large planes - the initial outlay may be lower and operating costs may be saved as a double-decker plane can carry twice as many passengers but the initial cost is not twice as much nor is the running cost doubled because the number of pilots required is not doubled.

**Body 3:
Marginal Private Benefit
– Higher costs from
internal diseconomies
of scale**

Explain how firms may experience internal diseconomies of scale when they grow beyond a certain size → LRAC may increase. Give examples.

- managerial diseconomies of scale - organisation, administration, planning and control are all more complex in a large operation. slow decision making, one section of the firm may not know what the other sections are doing and duplications may occur resulting in wastage.

Conclusion

The airline should decide to merge if and only if the marginal private benefits from taking the action are at least as great as the marginal private benefit.

2016 Preliminary Examination
H2 Economics Suggested Answers

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	For an answer that exhibits <u>rigorous</u> explanation of the marginal private benefits and costs of a merger, showing application to the airline industry.	7 - 10
L2	For an answer which explains the marginal private benefits and costs of a merger without applying to the context of the airline industry, or may be limited in scope or depth or an one-sided answer that only explains clearly the marginal private benefits or costs of a merger between airlines.	4 - 6
L1	For a descriptive and superficial answer that mainly lists the marginal private benefits and costs of a merger.	1 - 3

(b)

Introduction

- [Explain what the term “firms’ strategies” refers to] Firms’ strategies may include pricing and output decisions, type of competition, i.e. price competition or non-price competition, and whether the firms compete/collude.
- [State approach] This essay seeks to explain how a firm’s objectives, and business risks may influence its strategies, before discussing which is a more significant factor in determining firms’ strategies.

Body (1) – Explain how a firm’s objectives may determine its strategies

- Explain how a profit maximising firm determines price and output.
[can illustrate with a model, showing three levels of output - below/at/above output level where $MC=MR$]
- Explain how a firm that seeks to maximise growth may engage in predatory pricing to drive rivals out and increase their market share. Refer to the preamble: Price war in the airlines industry
- Explain how sales managers and commission-based employees (e.g. financial advisers) whose income are dependent on the total revenue earned by the firm, might choose to maximise revenue rather than to maximise profits → produce at output level where $MR=0$

Body (2) – Explain how business risks may determine a firm’s strategies

- Refer to preamble, explain how rising fuel cost increases airlines’ costs of production, and recession may lower revenue, therefore affecting profitability → airlines may merge to lower costs and increase market share (as mentioned in part a) to prevent a bankruptcy and achieve greater stability.

Evaluative conclusion

- Firms ultimately aim to maximise profits in the long run (elaborate), therefore the objective of profit maximisation is probably the main determinant of firms’ strategies in the long run.
- In the short run, a firm’s strategies may be determined by its alternative objectives, such as growth maximisation. (Link to the preamble)
- However, it appears that in the case of the airlines industry, during an economic downturn, business risks might influence the objectives of firm, causing the airlines to switch from maximising market share to maximising profits, thereby being a more significant determinant of a firm’s strategies in the short run.

2016 Preliminary Examination
H2 Economics Suggested Answers

Level		Knowledge, Comprehension, Analysis and Application	Marks
L3	For an answer that exhibits rigorous explanation of how objectives or business risks may affect firms' strategies. Answer is well organised, uses appropriate economic diagrams and is supported with real world examples.		7 - 9
L2	For an answer that is lop-sided, e.g. an answer that explains with examples how objectives of firms OR business risks may determine firms' strategies Or an answer that explains how objectives of firms and business risks may determine firms' strategies, but may be limited in scope or depth; contains accurate though undeveloped explanations, not consistently analytical		5 - 6
L1	For a descriptive and superficial answer that briefly explains how objectives or business risks may affect firms' strategies.		1 - 4
Level		Evaluation, Synthesis	Marks
E2	Insightful, evaluative comments supported by economic or contextual analysis.		3 - 4
E1	Statements not based on economic or contextual analysis.		1 - 2

EQ4 Schematic Plan:

<p>Introduction</p> <ul style="list-style-type: none"> Briefly relate to the preamble and identify the economic problems faced by Singapore. State that Singapore government has to adopt policies to address these economic issues. 			
<p>Body (1)</p> <p>Explain the economic issues raised in preamble</p> <ul style="list-style-type: none"> Weakness in global markets → fall in global income → fall in demand for exports from Singapore Uncertainty in global markets → lowers confidence of consumers and producers → fall in consumption and investment → fall in demand for exports from Singapore and fall in FDI into Singapore Business conditions are difficult and uncertain → affects profitability and confidence of producers → fall in investment, cut in production increasing cost of production from rising manpower costs and tighter financing → cost push inflation → reduce export competitiveness and profitability → fall in investment and demand for exports from Singapore In all, both AD and AS fall and assuming that the fall in AS > fall in AD, general price level increases, while real national income and hence economic growth and employment are adversely affected. (illustrate using a diagram) 			
<p>Body (2)</p> <p>Explain and evaluate the possible policies that Singapore government may consider to boost its economy and lower inflationary pressures (in particular, rising business costs)</p>			
<p>Demand management policies to stimulate actual growth</p>		<p>Supply side policies to lower cost push inflation and raise potential growth</p>	
<p>Exchange Rate Policy</p> <ul style="list-style-type: none"> Explain how slowing down the pace of appreciation or a zero appreciation of Sing dollar can help boost AD via the multiplier process (explain) Evaluate the effectiveness and desirability of the use of this policy <ul style="list-style-type: none"> Size of k Inability to manage imported inflation 	<p>Fiscal Policy</p> <ul style="list-style-type: none"> Explain how expansionary fiscal policy can increase AD and hence stimulate actual growth and employment. Evaluate the effectiveness and desirability of the use of this policy <ul style="list-style-type: none"> Size of k Limits size of budget Possibility of demand pull inflation 	<p>Retraining & Education</p> <ul style="list-style-type: none"> Explain & evaluate how subsidies in retraining and education can increase labour productivity (reduce cost of production) and, in the SR, raises competitiveness of exports and increase investments. While in the LR, raises productivity capacity 	<p>Wage Income Policy</p> <ul style="list-style-type: none"> Explain & evaluate how wage-income policy (e.g increase in wages to be in line with increase in productivity) can keep wages competitive and manage labour cost Explain & evaluate how ↑ govt expenditure in developing new growth areas etc can achieve both aims

Evaluative Conclusion	
<ul style="list-style-type: none"> • No single perfect policy to manage both problems faced. • There is a need for a combination of demand management and supply policies to manage inflation and stimulate growth and hence employment in the short run. The combination should also stimulate potential growth as well. • Need at least one policy tool for each marcoeconomic problem. • Given the nature of Singapore economy, which is vulnerable to performance of global economies, the increase in real national income can only be achieved if global economies improve. 	

Mark Scheme

Level		Knowledge, Comprehension, Analysis and Application	Marks
L3	For an answer that shows a well-balanced approach in the analysis of economic policies (both demand management and supply side) that Singapore government can adopt to tackle the economic problems raised in the preamble.		15 - 21
L2	For an answer that explain and evaluate at least 2 economic policies that Singapore government can use in response to the economic problems faced. OR For an answer that only explain a full range of economic policies (demand management and supply side) that Singapore government can use in response to the economic problems faced. For an answer that explain and evaluate a full range of policies (demand management and supply side) to manage only 1 economic problem identified in the preamble. Max 12m		10 - 14
L1	For an answer that correctly identifies and shows good knowledge of the economic problems in preamble and briefly explain some possible policies. OR For an answer that shows good knowledge of possible policies without addressing the economic problems raised in preamble		1 - 9
Level		Evaluation, Synthesis	Marks
E2	For an evaluation based on economic analysis.		3 - 4
E1	For an evaluation not supported by analysis.		1 - 2

EQ5 Part (a) Schematic Plan

Introduction

- Define circular flow of income
- Identify the components of circular flow
- State Approach: This part will be examining how demand management policies by government can influence the circular flow of income

Body (1)

Explain the workings of the circular flow of income in a 4 sector economy

Households receive factor income (rent, wages, interest and profits) from firms in return for the provision of factor inputs such as land, labour, capital and enterprise. In return, the income paid out to households goes into buying goods and services produced by local firms (C), payment of income taxes to the government (T), as well as spending on imported goods and services (M).

Any amount left over from household income after deducting for C, T and M is assumed to be saved (S) in banks. S, T and M are regarded as withdrawals from the circular flow, since this part of household income is not spent on firm output.

Body (2)

Explain the impact of fiscal and monetary policies (expansionary/contractionary) on the circular flow of income

Fiscal Policy (Expansionary)

(Increase in government expenditure and/or Decrease in direct taxes)

- Increase in government expenditure → direct increase in injection
- Decrease in direct taxes → direct decrease in withdrawal.
- if decrease in personal income tax, consumption increases → fall in savings (withdrawal)
- if decrease in corporate tax → increase in investment (injection)
- Overall, there is a net injection into the circular flow
- Explain how the expansionary fiscal policy expands the circular flow of income by causing a net injection into the circular flow via the multiplier process (explain using numerical e.g.).

Monetary Policy (Expansionary)

(Increase money supply OR Decrease interest rates)

- Increase in money supply → lowers interest rates.
- Decrease interest rates → decrease cost of borrowing → increase investment (injection) and consumption
- decrease returns from lending/saving → reduce savings (withdrawals)
- Overall, there is a net injection into the circular flow
- Therefore, there is an expansion of the circular flow of income.

Conclusion

Expansionary fiscal and monetary policies, thus, raise the circular flow of income by causing a net injection. Contractionary demand management policies will do the reverse.

2016 Preliminary Examination
H2 Economics Suggested Answers

Mark Scheme:

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	For a comprehensive explanation of the operations of fiscal and monetary policies (including the multiplier process) and demonstrate their impact on the relevant components on circular flow of income.	9 - 12
L2	For an answer that explain how (contractionary or expansionary) fiscal and monetary policies work without the explanation of multiplier process and their impact on the circular flow of income.	5 - 8
L1	For an answer that shows knowledge of circular flow of income and its components and demand management policies	1 - 4

EQ5 Part (b) Schematic Plan

Introduction

- Define budget deficit: a government budget deficit occurs when a government spends more than it receives in tax revenue
- State Approach: Whether a budget deficit should be of a concern to governments depends on a number of issues for e.g. duration of deficit, size of the deficit, cause of the deficit and how the deficit is financed etc

Body

Should a government be concerned about a budget deficit?

Thesis: Yes, budget deficit is a concern

Explain the impact of the following cases

- If budget deficit is persistent and large
- If budget deficit is financed by borrowing and the implications on future generations

Anti-thesis: No, budget deficit is not a concern

Explain the impact of the following cases

- If budget deficit is temporary due to the use of expansionary fiscal policy during a recession.
- If budget deficit occurs due to government expenditure on activities that can raise potential growth
- If budget deficit is financed by government reserves from accumulated budget surpluses

Evaluative Conclusion

- Many governments are running budget deficits in the recent years as they have increased their spending. Hence it is important for governments to realise the impact of their increased expenditure on their budget position.
- Other than to consider the duration, size, cause of the budget deficit and how the deficit is financed, there is a need to also consider the nature of the economy and the economic context that the country is facing. For instance, increasing government expenditure is necessary to boost potential growth and if government has sufficient reserves, a budget deficit is not an issue.
- Apply to specific economies.

Mark Scheme:

Level	Knowledge, Comprehension, Analysis and Application	Marks
L3	For a comprehensive and detailed analysis of the criteria used to evaluate the issue of whether a budget deficit is of concern	7 - 9
L2	For an unbalanced answer. One sided answer with no thesis or anti-thesis to address whether a budget deficit is a concern	4 - 6
L1	For an answer that shows knowledge of a government budget deficit and some impact (positive or negative) of a government budget deficit.	1 - 3

2016 Preliminary Examination
H2 Economics Suggested Answers

Level	Evaluation, Synthesis	Marks
E2	For an evaluation based on economic analysis or empirical evidence	3 - 4
E1	For an evaluation not supported by analysis.	1 - 2