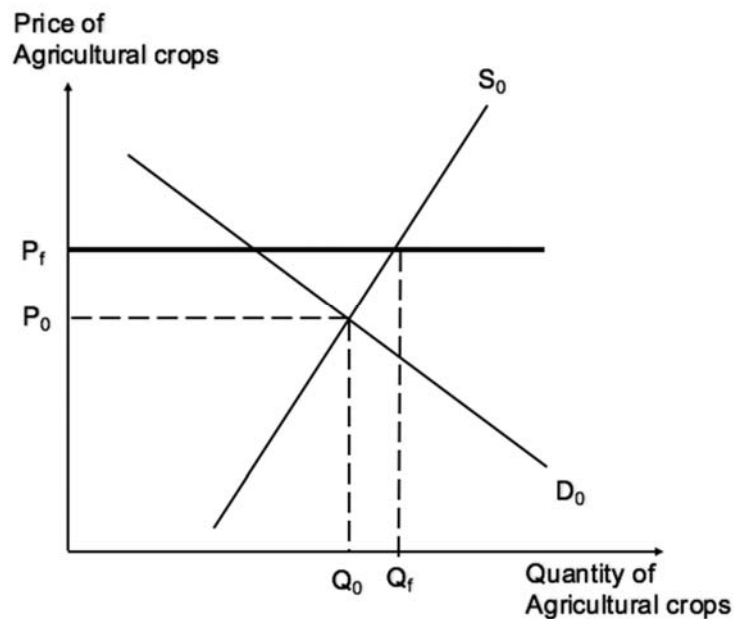


**2018 JC2 H2 Preliminary Examination Economics Paper 1**  
**Suggested Answers, Mark Schemes**

**Case Study 1**

<b>(a)</b>	<p><b>Compare the fertiliser demand growth rates for nitrogen and phosphate between Africa and the Americas.</b></p> <p><b>Similarity:</b> The growth rate for both commodities was positive for both regions. [1]</p> <p><b>Difference:</b> However, the growth rate for nitrogen exceeded phosphate for Africa while the growth rate for nitrogen was less than phosphate for the Americas [1]</p> <p>Or</p> <p>Americas had a larger demand growth in phosphate while Africa had a larger demand growth nitrogen.</p>	[2]
<b>(b)</b>	<p><b>State how the following goods are related:</b> <b>(i) phosphorous and meat</b></p> <p>The demand for phosphorous is a derived demand of meat. [1] [no mark for mere stating of derived demand as the cause and effect will be vague]</p> <p>or</p> <p>Phosphorous is a factor input for meat. [1]</p>	[1]
	<p><b>(ii) meat and biofuels</b></p> <p>Both meat and biofuels are in competitive supply [1m]</p> <p>or</p> <p>Both meat and biofuels require the same factor input. [1m]</p> <p>Evidence: <i>"In developed regions, on the other hand, the shift towards a diet of meat and cheese has also increased phosphorus demand, since meat and dairy contain a significant proportion of phosphorus. As a result, countries everywhere face rising demands for phosphorus, which has led to precarious markets."</i></p> <p>In 2008, the price of phosphate fertiliser almost doubled because of increased demand for fertiliser (due to more meat consumption) and biofuels, and a short-term lack of availability of phosphate rock.</p>	[1]

(c)	<p><b>Explain two possible conditions that will encourage the successful formation of “an OPEC for phosphorous”.</b></p> <p><i>Any 2 reasons with justification</i></p> <p><b>1. They must sell homogenous good</b>          For the countries in cartel to not deviate from the agreed price, they must be selling the same good. If the good is question is different, retaliation by other countries in the cartel such as aggressively lowering the price would have no impact on the countries.</p> <p><b>2. All the countries must abide by the quota</b>          Countries in the cartel need to abide by the quota. If any of the country decides to increase the quantity, it would lead to a higher Q and lower P compared to profit-maximisation outcome, hence rendering the cartel ineffective.</p> <p><b>3. There must be a country that has a large market share</b>          In the event where the country deviates, the country that controls most of the market share can punish the deviator.</p> <p><b>4. The good that is under the cartel must not have close substitutes</b>          If there are substitutes, consumers can turn to the substitutes. In doing so, the cartel would not be able to set a high price because the consumers will switch to other substitutes and disrupt the pricing and output decision by the cartel.</p> <p><b>5. The countries must have similar cost structure.</b>          If the countries do not have similar cost structure, the country with the lowest cost of production will have a higher tendency to cheat, hence breaking down the cartel.</p>	[4]
(d)	<p><b>Using a diagram, explain how a price floor on agricultural crops could theoretically improve the living standards of Indian farmers, if implemented as part of the farmer-oriented initiative.</b></p> <p>1m [correct diagram] – Price floor diagram</p>	[3]



1m [Explain the diagram] – Price floor would raise the price of agricultural crops from  $P_0$  to  $P_f$ . This will increase the revenue received ( $P_0Q_0$  to  $P_fQ_f$ ) by the farmers and assuming cost remains constant and the government buys up the surplus, this would cause an increase in profits.

Or

1m [Using PED] – The demand for agricultural crops is price inelastic because of the lack of substitutes. With the rise in price as a result of the price floor, this would lead to a less than proportionate fall in quantity demanded. This results in an increase in total revenue, even without the government buying up the surplus.

1m [link to SOL] - Hence, leading to a rise in purchasing power that will allow them to consume more goods and services.

(e)

**Identify a normative statement in Extract 4.**

[1]

Note: A normative statement must be a statement of opinion that cannot be objectively tested or proven.

“One area that should be prioritised in reducing phosphorus is the smarter use of fertiliser.”

“Therefore, it is increasingly necessary to promote a plant-based diet to reduce the amount of phosphorus consumption.”

(f)

**Discuss whether the Indian government had sufficient information to make a rational decision to develop its phosphorous industry.**

[8]

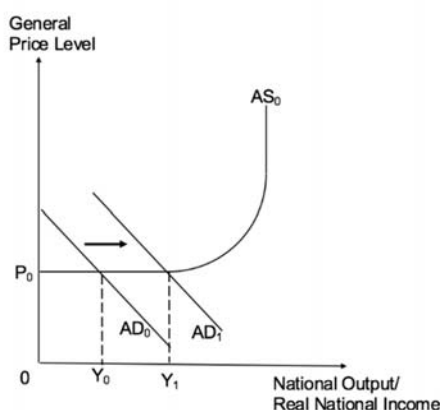
<b>Content</b>	Decision-making determinants
<b>Context</b>	Indian government in its decision to develop the phosphorous industry
<b>Command</b>	Discuss + Evaluation

Rational decision making by the government is premised on its aim to maximise social welfare. In this case, to make a rational decision, we will analyse whether the India government had sufficient information pertaining to the benefits, costs, constraints faced and unintended consequences of developing its phosphorous industry.

The information is sufficient for the India government to ascertain the benefits resulting from the development of the phosphorus industry.

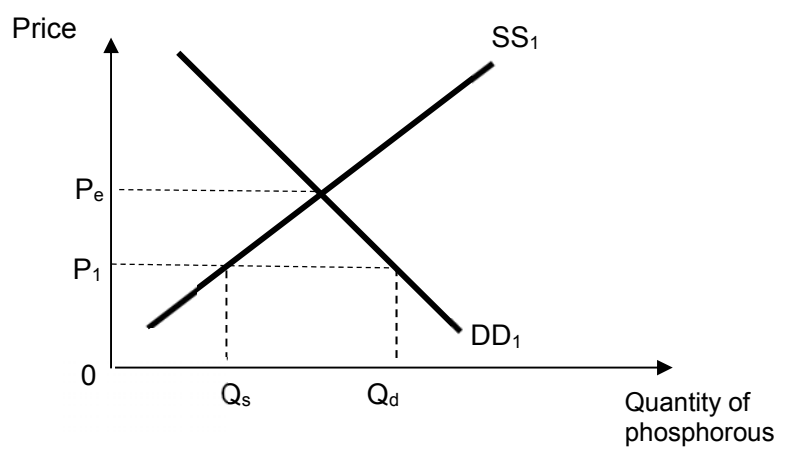
According to Extract 3 para 2, the fertiliser sector is one of 25 sectors identified as exhibiting high potential for profitable growth in India. One significant reason could be due to the huge demand for phosphorus, given that it is an essential nutrients in fertilizers for food production. Additionally, its demand is extremely price inelastic since phosphorus has no substitutes (Extract 1, para 2). An increase in price of phosphorus can lead to a less than proportionate decrease in its quantity demanded, hence increasing total revenue. Assuming total revenue is greater than total cost, there is huge potential for supernormal profits to be reaped from the development of this industry.

Also, "Indian Prime Minister Narendra Modi has been encouraging the "Made in India" movement, pushing for new employment opportunities in the manufacturing sector, since he came to power in 2014". By developing the phosphorus industry, it will be able to create domestic employment through foreign direct investment.



The increase in I will lead to an increase in AD, represented by a rightward shift of  $AD_1$  to  $AD_2$ , hence resulting in RNY from  $Y_0$  to  $Y_1$ . The rise in RNY

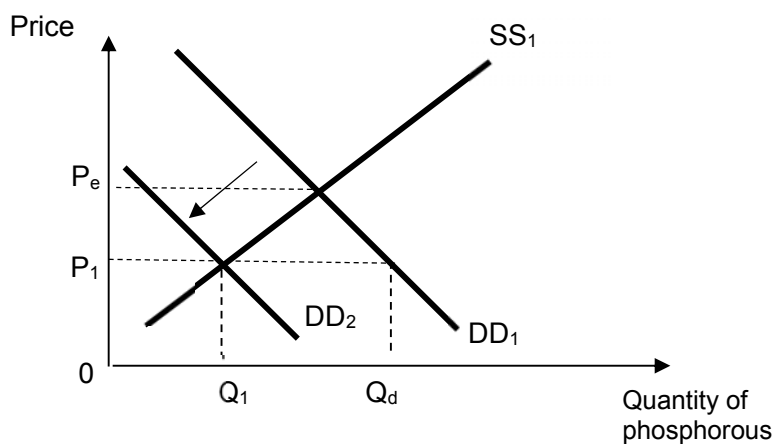
	<p>will lead to an increase in employment, since demand for labour is a derived demand for the increase in production of phosphorus. With the rise in employment, this would improve the standard of living of India's citizens.</p> <p>Furthermore, with the rise in FDI coming into India, this will lead to an improvement in her balance of payment position. By developing the phosphorus industry, this will attract more FDI into the country and ensuring the country will attain a healthy balance of payment position.</p> <p><u>The information is insufficient for the India government to ascertain the costs resulting from development of the phosphorus industry.</u></p> <p>While there is sufficient information on the benefits of developing the phosphorus industry, there is insufficient information on the total cost to the India government. In part, it is important to consider the unintended consequences of negative externalities that could arise from the production of phosphorus. Ext 1ract para 3 highlighted that inefficient use of phosphorus could pollute rivers and cause toxic algal blooms. This could possibly result in a loss of income for fishermen who are not directly involved in the production and consumption of phosphorus. Such negative externalities could lead to an overproduction of phosphorus and allocative inefficiency in the use of resources. As the government may not be able to accurately estimate the marginal external cost that arises given that the damage from pollution is extremely difficult to assess, the cost of developing the phosphorus industry may be higher than anticipated. Hence there may not be sufficient information for the government to ascertain whether the benefits would necessarily be greater than the cost of developing the phosphorous industry. Furthermore, the government ought to consider the finance of developing this sector as there might be budget constraints.</p> <p>Other possible considerations:</p> <ul style="list-style-type: none"> <li>• The government does not have sufficient information on whether the development of the phosphorous industry will worsen income inequality in India. In the event that the India government would want to develop this sector, those workers working in the phosphorous industry would earn higher wages as compared to those in sunset industries. Hence, a worsening of income inequality would affect her economy as it might not attract investments into the country.</li> <li>• The government does not have sufficient information on how the investments by Morocco would affect India's future balance of payment position. This is because the profits by Morocco firms would be repatriated away and could thus worsen its BOP position.</li> </ul> <p>EV: Despite being uncertain about the cost in terms of the negative externality in production of phosphorus, the India government's decision to go ahead to develop the phosphorus industry suggests that there is sufficient information to the government that the benefits would outweigh the costs of her decision.</p>	
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	<table><tr><th>Levels</th><th>Descriptors</th></tr><tr><td><b>Level 2 (4 – 6 marks)</b></td><td><ul style="list-style-type: none"><li>Thorough and balanced analysis with reference from case study</li><li>Anchored on relevant economic analysis such as AD-AS.</li></ul></td></tr><tr><td><b>Level 1 (1 -3 marks)</b></td><td><ul style="list-style-type: none"><li>Answers are lacking in depth of analysis or scope.</li><li>1-sided answer</li></ul></td></tr><tr><td><b>For Evaluative Comment (1 – 2 marks)</b></td><td><ul style="list-style-type: none"><li>Judgement/conclusion on whether the Indian government had sufficient information to develop the phosphorous industry.</li></ul></td></tr></table>	Levels	Descriptors	<b>Level 2 (4 – 6 marks)</b>	<ul style="list-style-type: none"><li>Thorough and balanced analysis with reference from case study</li><li>Anchored on relevant economic analysis such as AD-AS.</li></ul>	<b>Level 1 (1 -3 marks)</b>	<ul style="list-style-type: none"><li>Answers are lacking in depth of analysis or scope.</li><li>1-sided answer</li></ul>	<b>For Evaluative Comment (1 – 2 marks)</b>	<ul style="list-style-type: none"><li>Judgement/conclusion on whether the Indian government had sufficient information to develop the phosphorous industry.</li></ul>	
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<b>(g)</b>	<p><b>Assess the relative effectiveness of different policy approaches in response to the phosphorous shortage issue.</b></p> <table><tr><td><b>Content</b></td><td>Shortage; demand and supply determinants, micro policies</td></tr><tr><td><b>Context</b></td><td>Policies to address the phosphorous shortage issue</td></tr><tr><td><b>Command</b></td><td>Assess + Evaluation</td></tr></table> <p>Analysis [7m] + Evaluation [3m]</p> <p>Phosphorous shortage refers to the issue of <math>Q_d</math> being more than <math>Q_s</math> at the existing market price, <math>P_1</math>. This arises due to rising demand and/or falling supply, and where the price is not able to reach <math>P_e</math> in the short run due to the transitional time needed i.e. inefficient workings of the price mechanism.</p>  <p>To address the shortage, a combination of demand- and supply-related policies need to be used i.e. to reduce the demand and to increase the supply.</p>	<b>Content</b>	Shortage; demand and supply determinants, micro policies	<b>Context</b>	Policies to address the phosphorous shortage issue	<b>Command</b>	Assess + Evaluation	<b>[10]</b>		
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Policy 1: Provide accessible information from the Wisconsin Index to farmers, emphasising ideals of conservation and long-term sustainability of phosphorus (DD-related)

Making available more information on how much phosphorous is needed for farming to prevent wastage in consideration of various factors like soil, temperature and weather patterns.

With imperfect information, demand for fertiliser and hence phosphorous will be higher. This policy, if successful, will reduce the demand for phosphorous, hence reducing the equilibrium price so as to eliminate the shortage – reaching market equilibrium of  $P_1$  and  $Q_1$  where there is no further tendency for change.



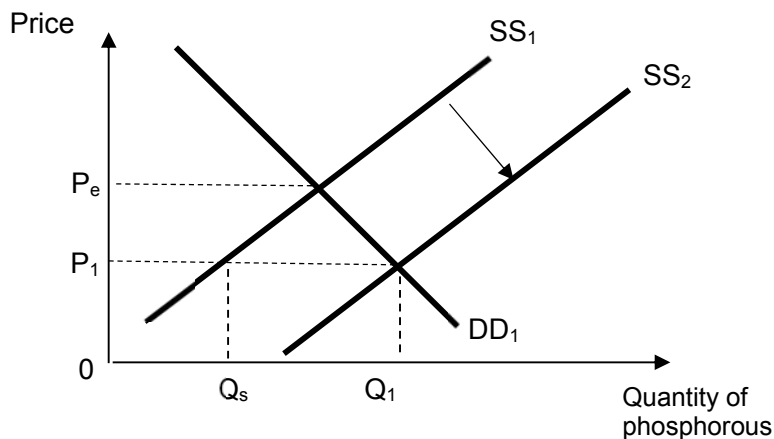
**Assessment:**

It will be effective since the farmers will want to reduce expenditure on phosphorous (their costs of production), in line with profit-maximising objective. However, it depends on how well they can internalise and apply the information made available to them via the Wisconsin Index. The effective use of the Index will require farmers to adapt it when there is a change of environmental conditions across the years. In considering the aptitudes of farmers who may not be as adept in processing such knowledge, the challenge of applying the Index effectively will limit its full potential. Farmers may likely still over- or even under-utilise phosphorous i.e. DD will not be exactly at  $DD_2$  to correct the shortage.

Policy 2: Enhancing the supply through recycling human waste (SS-related)

Naturally-extracted phosphorous is finite and not easily extracted from phosphate rock, especially so when only a few countries produce it, in particular Morocco.

Recycling will provide a boost to the supply, relieving the price pressure and hence reducing the shortage which will now clear at equilibrium of  $P_1$  and  $Q_1$ .



**Assessment:**

Depends on whether it is cheaper to extract phosphorous out of waste or out of naturally-occurring phosphate rock. Intensive research is still ongoing to make recycling feasible and economical. A breakthrough will likely depend on the ability for the global community to harness the collective research findings. Moreover, the success will also depend on whether farmers have access to such technology (need for some sunk costs to be incurred first which may be too costly) and knowledge, translating it into their farming practice.

**Policy 3: Promote plant-based diet (DD-related)**

Plant-based diet (compared to meat and dairy diet) requires less phosphorous and hence will reduce the demand for phosphorous. This will reduce the equilibrium quantity, thus reduce the pressure of the 'multiple wants'.

**Assessment:**

Requires a fundamental change of tastes and preferences which will take a long time. Meat and vegetables are perceived by many to be poor substitutes terms of tastes, protein, iron content, etc. Dietary habits are also influenced by culture, religion and individual special needs. Self-interested consumers will thus likely only regard their immediate benefits so as to maximise their utility, rather than consider the wider impact of their actions on society or consider the long-term impact on self.

**Evaluation**

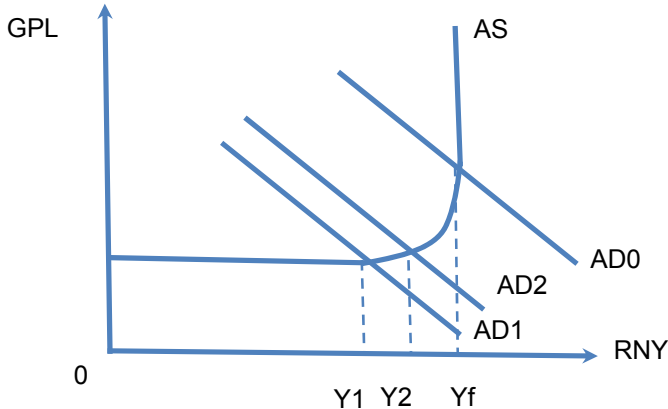
- Stand: whether demand- or supply-related policy is more effective in solving the phosphorous shortage issue, supported by a clear criterion, for example, which is more sustainable, feasible, etc.
- Maximum of 1 mark if candidate only discusses 2 demand-related policies and ranks them.

Levels	Descriptors
<b>Level 2 (5 – 7 marks)</b>	<ul style="list-style-type: none"> <li>Thorough and balanced analysis on how 1 demand- and 1-supply-related policy works, with assessment of limitations.</li> <li>Anchored on suitable demand-supply analysis with link back to the issue of phosphorous shortage.</li> </ul>
<b>Level 1 (1 – 4 marks)</b>	<ul style="list-style-type: none"> <li>Answers are lacking in depth of analysis or scope.</li> <li>Limited reference made to case materials to substantiate argument.</li> <li>For an imbalanced answer that addressed 2 demand-related policies without inclusion of a supply-related policy.</li> </ul>
<b>For Evaluative Comment (1 – 3 marks)</b>	<ul style="list-style-type: none"> <li>Judgement/conclusion on whether demand- or supply-related policy is more effective in solving the phosphorous shortage issue, supported by a clear criterion, for example, which is more sustainable.</li> </ul>

### Case Study 2

<b>Suggested Answers and Mark Scheme</b>		
ai)	<p><b>Using the concept of opportunity cost, account for UK's trade balance with Singapore.</b></p> <p><u>[1m] State the difference</u>          UK has a trade surplus with Singapore.</p> <p><u>[1m] Explain UK trade surplus with Singapore using lower opportunity cost</u>          UK has a trade surplus with Singapore because it has a CA in the production of more goods and services and/or higher valued goods and services compared to Singapore. This means UK is able to produce these goods and services at lower opportunity costs, so exports them to Singapore and importing fewer of them from Singapore.</p> <p><i>Evidence – Extract 5 “The value of free trade is obvious: things being produced by those most cost efficient at production...”</i></p>	<b>[2]</b>
a ii)	<p><b>Explain a possible effect on Singapore's pattern of trade with UK if the plan for the Commonwealth Trading Bloc is realised.</b></p> <p><u>[1m] State a possible effect</u>          Singapore can export more to UK after Commonwealth Trading Bloc is realised.</p>	<b>[2]</b>

	<p><u>[1m] Explain the possible effect</u></p> <p>UK will lower tariffs on imports from Commonwealth members, including Singapore. So price of Singapore exports to UK will fall, quantity demanded for SG exports will rise more than proportionately, and export revenue of Singapore to UK will rise. This is because UK demand for SG exports is likely to be price elastic, given close substitutes of high valued-added goods and services from advanced EU countries.</p> <p><i>Evidence – Extract 5 “For much of Asia, trade has been a key driver of economic growth. For example, in 2014, trade totalled 351% of Singapore's total economic output...If there are higher trade tariffs on Asia, it would result in higher prices for goods produced in Asia and hurt export revenue. Asia needs to find new opportunities for global trade...a Commonwealth Trading Bloc...“Brexit is not a vote against free trade because the EU has acted as a protectionist bloc for its members against imports from outsiders”... Members of the business community in Singapore are keen on the Commonwealth Trading Bloc with the UK... the impending trade war between the US and China...weaken Singapore export-led growth. Hence the potential gains from free trade with Commonwealth members can cushion these negative spill-over effects for Singapore.”</i></p> <p>•</p>	
b)	<p><b>Explain how “EU has acted as a protectionist bloc for its members against imports from outsiders” (Extract 5).</b></p> <p><u>[1m] State how EU acts as a protectionistic bloc against trade with outsiders</u></p> <p>EU removes import tariffs on EU members and imposes high import tariffs on non-EU members.</p> <p><u>[1m] Explain how import expenditure on non-EU members fall</u></p> <p>With higher import tariffs on non-EU members, price of imports from non-EU members rises. Since there are close substitutes from EU members, demand for imports from non-EU members is price elastic. So quantity demanded for imports from non-EU countries falls more than proportionate. So import expenditure on non-EU countries falls.</p> <p><u>[1m] Explain how import expenditure on EU members rise</u></p> <p>As price of imports from non-EU members rise, imports from EU members are relatively cheaper as substitutes. So demand for imports from EU member rises, hence higher import expenditure on EU members.</p> <p><i>Evidence – Extract 5 “If there are higher trade tariffs on Asia, it would result in higher prices for goods produced in Asia and hurt export revenue. Asia needs to find new opportunities for global trade...a Commonwealth Trading</i></p>	<b>[3]</b>

	<i>Bloc... "Brexit is not a vote against free trade because the EU has acted as a protectionist bloc for its members against imports from outsiders."</i>	
c)	<p><b>Using an AD/AS diagram, explain the combined effects of “some of the firms moving out of the UK because of Brexit” and “applying jobseeker allowance” on UK economic growth and employment in the short-term.</b></p> <p>[1m] An AD/AS diagram</p> <p><u>Figure 1: Combined effects of firms moving out and applying jobseeker allowance (short-term)</u></p>  <p>[2m] Explain effect of “some of the firms moving out of the UK because of Brexit” on I and AD/AS, and then on UK economic growth and employment</p> <p>As firms move out, there will be a fall in investments. Since investment is a component of AD, there will be a fall in AD and a multiplied fall in RNY. This is because the fall in AD will lead to an unplanned increase in inventory, hence firms will cut back on production, leading to a fall in national output. Firms will also hire less factors of production, including labour, hence demand-deficient unemployment.</p> <p>Hence overall, the moving out of firms from UK will lead to negative economic growth from <math>Y_f</math> to <math>Y_1</math> and demand-deficient unemployment (<math>Y_1Y_f</math> gap).</p> <p>[2m] Explain effect of ‘applying jobseeker allowance’ on C and AD/AS and then combined effects on UK economic growth and employment</p> <p>Jobseeker allowance is an unemployment benefit that serves as an automatic stabiliser for the UK economy. As the unemployed apply for jobseeker allowance, the decrease in household income of these unemployed workers may be partially offset by amount of unemployment benefit they receive from the government. While household income and induced consumption will still</p>	[5]

	<p>decrease, it decreases by a smaller extent. This means a smaller reverse multiplied fall in RNY.</p> <p>With a smaller reverse multiplied fall in RNY, UK negative economic growth will be less severe from Yf to Y2. As national output falls less, firms hire less factor of production by a smaller extent, so a smaller demand-deficient unemployment (Y2Yf gap).</p> <p><i>Evidence – Extract 6 “The economic case for Brexit is not that there would be large economic gains; at least not in the short term. In fact, it could hurt UK economic growth and employment. While some Britons struggle to find new jobs, others may be losing theirs. The search for “applying jobseeker allowance”, an unemployment benefit, has increased about 50% in the first fortnight in July alone compared to the entire month of May. Businesses are cutting investment, too. An example is Deutsche Bank. The relocation of jobs from UK to Germany as early as next year, ahead of the March 2019 deadline for Brexit.”</i></p>							
d)	<p><b>Assess whether UK dairy retailers or consumers are more likely to bear the impact of the indirect taxes as mentioned in Extract 7.</b></p> <p><b>Marks Allocation</b> Analysis [6m] + Evaluation [2m]</p> <p><b>Question Analysis – Key Words</b></p> <table><tr><td><b>Content</b></td><td><p>“bear the impact of the indirect taxes” → explain the distribution of the tax burden/tax incidence between consumers and producers → depends on relative price elasticity of UK dairy retailers and consumers</p><p>Perspective 1 UK consumers is more likely to bear the impact of the indirect taxes if demand is more price inelastic than supply.</p><p>Perspective 2 UK consumers is less likely to bear the impact of the indirect taxes if demand is more price elastic than supply.</p></td></tr><tr><td><b>Context</b></td><td>“UK dairy retailers and consumers”</td></tr><tr><td><b>Command</b></td><td><p>“Assess whether UK dairy retailers or consumers are more likely to bear the impact”</p><p>→ Make a judgment on which economic player is more likely to bear the impact based on the relative price elasticity of UK dairy retailers and consumers</p></td></tr></table>	<b>Content</b>	<p>“bear the impact of the indirect taxes” → explain the distribution of the tax burden/tax incidence between consumers and producers → depends on relative price elasticity of UK dairy retailers and consumers</p> <p>Perspective 1 UK consumers is more likely to bear the impact of the indirect taxes if demand is more price inelastic than supply.</p> <p>Perspective 2 UK consumers is less likely to bear the impact of the indirect taxes if demand is more price elastic than supply.</p>	<b>Context</b>	“UK dairy retailers and consumers”	<b>Command</b>	<p>“Assess whether UK dairy retailers or consumers are more likely to bear the impact”</p> <p>→ Make a judgment on which economic player is more likely to bear the impact based on the relative price elasticity of UK dairy retailers and consumers</p>	[8]
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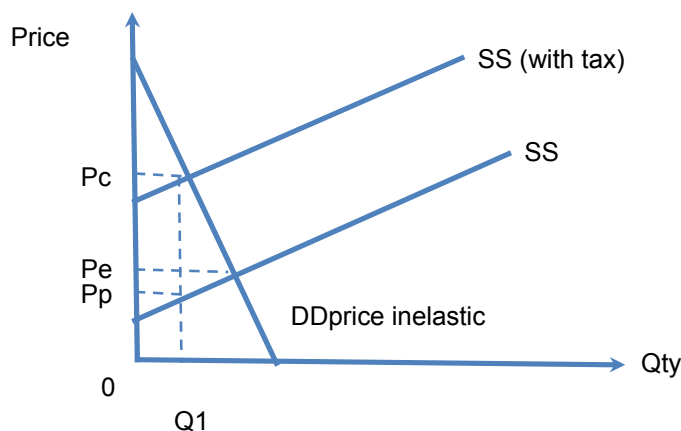
→ Depends on nature of product, time period etc.

### Introduction

Whether UK dairy retailers or consumers is more likely to bear the impact of the indirect taxes depends on the relative price elasticity of demand and supply.

Perspective 1: UK consumers is more likely to bear the impact of the indirect taxes if demand is more price inelastic than supply.

Figure 2: Distribution of tax burdern/incidence if demand is more price inelastic than supply

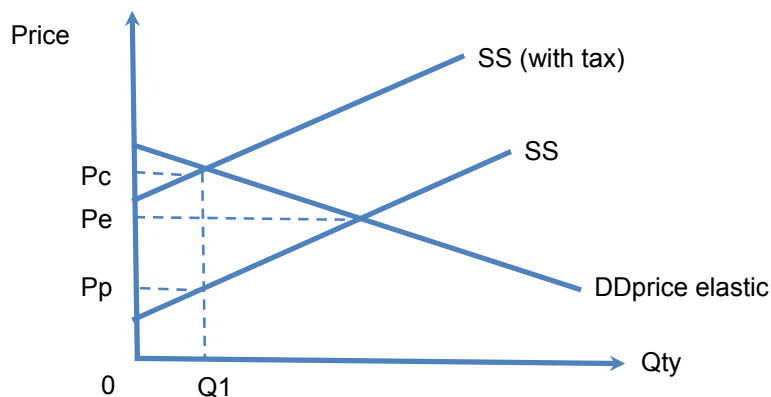


- For dairy products such as butter, yoghurt and cheese, they can be considered staples in the diet of UK consumers. The high degree of necessity means consumers will be less responsive and continue consumption of dairy products despite higher prices. So demand for imported dairy products is more price inelastic than supply.
- Moreover, demand for dairy products is price inelastic than supply due to the over-reliance on EU dairy products. There is a lack of domestic substitutes or lack of substitutes from non-EU dairy exporters.
- So the rise in prices of dairy products will lead to a less than proportionate fall in  $Q_d$ , resulting in a rise in total revenue for UK retailers. Hence UK retailers can pass on the indirect taxes to UK consumers in terms of higher prices, so UK consumers bear more of the impact of the indirect taxes from  $P_e$  to  $P_c$ . UK retailers bear less of the impact of the indirect taxes from  $P_e$  to  $P_p$ .

*Evidence – Extract 7 “UK’s dairy production deficit has been put in the spotlight after repeated warnings that the country needs to rely less on imports to feed the population. UK does not produce enough milk to keep up with demand, creating an over-dependency on the EU, including on dairy-surplus countries such as Ireland, Germany, France, Belgium and Denmark for everyday dairy staples.”*

Perspective 2: UK consumers is less likely to bear the impact of the indirect taxes if demand is more price elastic than supply.

Figure 3: Distribution of tax burden/incidence if demand is more price elastic than supply



- When dairy products become “occasional luxuries”, its demand is more price elastic than supply. So dairy products become less of a necessity, and consumers will be more responsive to the higher prices and consuming less.
- Demand for dairy products can become more price elastic than supply. This is because as UK domestic production expands, so there will be domestic substitutes. There could also be other substitutes from dairy exporters like Australia and New Zealand if more free trade agreements such as the Commonwealth Trading Bloc is formed.
- So the rise in prices of dairy products will lead to a more than proportionate fall in  $Q_d$ , resulting in a fall in total revenue for UK retailers. Hence UK retailers are less able to pass on the indirect taxes to UK consumers in terms of higher prices, so UK retailers bear more of the impact of the indirect taxes from  $P_e$  to  $P_p$ . UK consumers bear less of the impact of the indirect taxes from  $P_e$  to  $P_c$ .

*Evidence – Extract 7 “Everyday dairy staples such as butter, yoghurt and cheese could become “occasional luxuries” in UK after Brexit. Arla believed that Brexit might bring opportunities to expand the dairy industry in the UK, boosting the country’s declining food security levels. However, increasing the UK’s milk pool and building the infrastructure for us to be self-sufficient in dairy will take years.”*

*Evidence – Extract 5 “British government ministers are developing plans for securing preferential trade arrangements with former colonies (including Australia, New Zealand, Singapore, Malaysia and Africa) to cushion the blow of Brexit – a Commonwealth Trading Bloc.”*

**EV (1-2m)**

In the short-run, UK consumers are more likely to bear the cost of the rise in price of dairy products as demand is likely to be more price inelastic than supply

- Dairy products are likely to remain as staples than “occasional luxuries” for UK consumers as it takes time to adjust consumers’ taste and preferences.
- Dairy products are likely to be over-reliant on imports as EU govt priority will be more on the outflow of FDI across industries given Brexit, rather than just on the dairy product markets to expand domestic production and reduce dairy-deficit. It takes time to establish the Commonwealth Trading Bloc to get import substitutes for non-EU countries too.

Levels	Descriptors
<b>Level 2 (4 – 6 marks)</b>	<ul style="list-style-type: none"><li>• Balanced and well-developed analysis on how UK consumers may bear more of the impact of indirect taxes <u>AND</u> may bear less of the impact of indirect taxes based on relative price elasticities of demand and supply</li><li>• Clear, relevant, accurate and precise economic theories/diagrams, and supported with evidence from case study</li></ul>
<b>Level 1 (1 – 3 marks)</b>	<ul style="list-style-type: none"><li>• One-side analysis on how UK consumers may bear more of the impact of indirect taxes <u>OR</u> may bear less of the impact of indirect taxes based on relative price elasticities of demand and supply <u>OR</u></li><li>• Under-developed analysis on how UK consumers may bear more of the impact of indirect taxes <u>AND</u> may bear less of the impact of indirect taxes based on relative price elasticities of demand and supply, <u>BUT</u> lacking clear, relevant, accurate and precise economic theories/diagrams, and lacking evidence from case study</li></ul>
<b>For Evaluative Comment (1 – 2 marks)</b>	<ul style="list-style-type: none"><li>• Evaluative judgements on whether UK retailers or UK consumers are more likely to bear the impact of the indirect taxes</li><li>• Supported by a clear criterion, for example, in the short-run, why demand for dairy products by UK consumers is likely to be more price inelastic than supply of UK retailers.</li></ul>

e)	<p>President Xi's belief is that "pursuing protectionism is just like locking oneself in a dark room. Wind and rain might be kept outside but so are light and air." (Extract 5)</p> <p>Discuss why China differs from US in their perspective towards protectionism.</p>	[10]						
<p><b>Mark Allocation</b> Analysis [7m] + Evaluation [3m]</p> <p><b>Question Analysis – Key Words</b></p> <table><tr><td><b>Content</b></td><td><p>"why China differs from US in their perspective towards protectionism"</p><p><u>Perspective 1</u> China against protectionism → pro free-trade → benefits of free trade → China comparative advantage → export more price competitive → export-led economic growth → "higher consumption, lower prices, more jobs"</p><p><u>Perspective 2</u> US pro protectionism → address costs of free trade → benefits of protectionism → import tariffs → reduce "trade deficits", retaliate against unfair trade practices such as "China stealing American jobs, manipulating its currency and subsidizing their local manufacturers and exporters".</p></td></tr><tr><td><b>Context</b></td><td>China and US; Free trade (exports and imports)</td></tr><tr><td><b>Command</b></td><td><p>"Discuss why"</p><p>→ Make a judgment on which China or US perspective is justified, or whose perspective is more justified. → Depends on nature of economy, state of economy, government priorities, time period etc.</p></td></tr></table> <p><u>Introduction</u></p> <p>While both countries are large and less open (compared to Singapore), their perspectives towards protectionism differ.</p> <p><u>China - Pro Free Trade Perspective</u></p> <p>China believes in free trade because 'light and air' of free trade &gt; 'wind and rain' of free trade</p> <p>i.e. positive net benefit as benefits of free trade &gt; costs for China</p>			<b>Content</b>	<p>"why China differs from US in their perspective towards protectionism"</p> <p><u>Perspective 1</u> China against protectionism → pro free-trade → benefits of free trade → China comparative advantage → export more price competitive → export-led economic growth → "higher consumption, lower prices, more jobs"</p> <p><u>Perspective 2</u> US pro protectionism → address costs of free trade → benefits of protectionism → import tariffs → reduce "trade deficits", retaliate against unfair trade practices such as "China stealing American jobs, manipulating its currency and subsidizing their local manufacturers and exporters".</p>	<b>Context</b>	China and US; Free trade (exports and imports)	<b>Command</b>	<p>"Discuss why"</p> <p>→ Make a judgment on which China or US perspective is justified, or whose perspective is more justified. → Depends on nature of economy, state of economy, government priorities, time period etc.</p>
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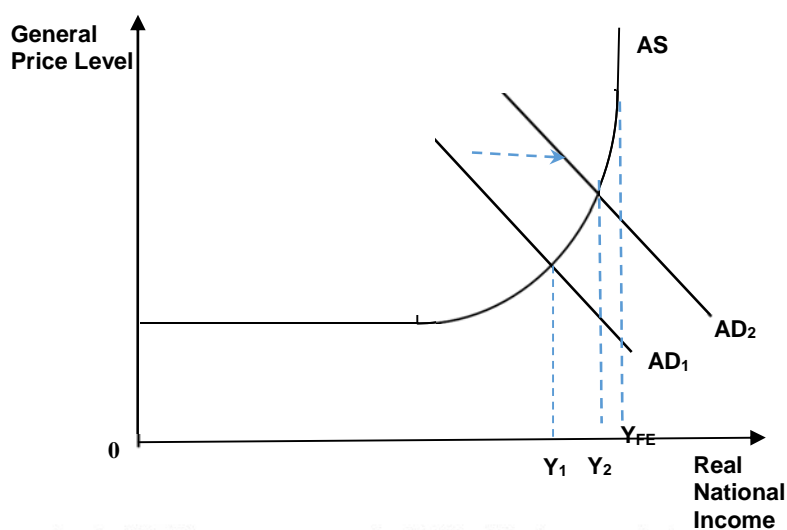
China has benefitted much from free trade due to its ability to possess many areas of comparative advantage. It is well-endowment of large pool of low wage labour force and hence enjoy comparative advantage in labour-intensive goods and services. This means it can produce labour-intensive goods and services at relatively lower opportunity cost compared to US. As Chinese economy develops, it has gained technological advancement and develops highly skilled labour, hence increasingly dispossess other advanced countries, including USA of their CA in higher value-added goods and services.

This translates to lower price of Chinese exports. Given that there are close substitutes available e.g. USA exports, quantity demanded of Chinese exports rises more than proportionately, China export revenue rises.

The above led to a prolonged period of China enjoying large and persistent trade surplus at the expense of US that is suffering from large trade deficit. Moreover, the changing CA patterns has impact on employment and incomes. Chinese workers are enjoying job gains and rises in incomes while US workers are bearing job losses and fall in incomes.

With, AD-AS analysis, the rise in export revenue and hence net exports results in China enjoying rising real NY and employment.

Figure 4: Export-led Economic Growth in China



Given a rise in  $(X-M)$ , a component of AD, AD rises and shifts right. There will be a multiplied rise in real national income. This translates to higher national output. Firms will need to produce more goods and services to meet the higher demand. In so doing, firms will hire more workers (a derived demand), leading to a rise in incomes (since one man's spending is another's income). These workers will then consume more (also save more, get taxed more and spend more on imports, depending on size of MPS, MPT and MPM), leading to a further rise in incomes and hence creation of more jobs. Real national income

will rise through multiple rounds until  $AD = AS$  again, where there is no tendency for any change to happen.

### USA - Pro-Protectionism Perspective

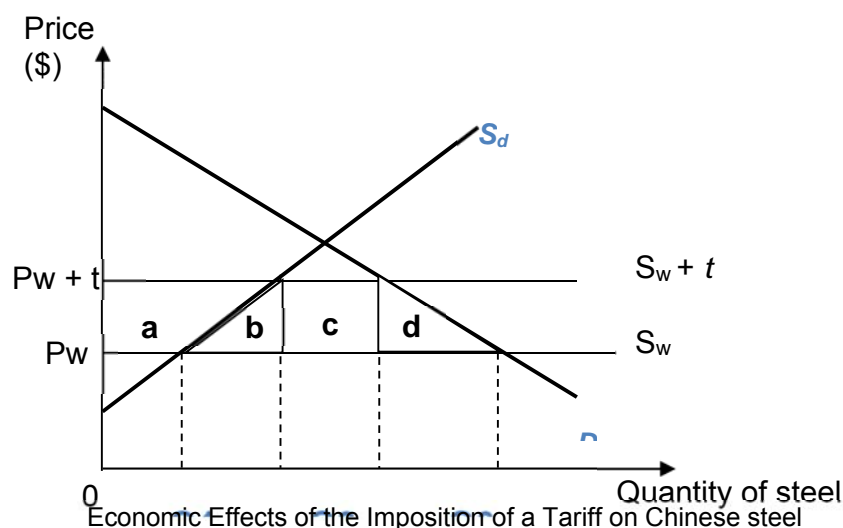
USA believes in protectionism because 'light and air' of free trade < 'wind and rain' of free trade

i.e. costs of free trade > benefits of free trade, so need to protect to address costs of free trade

USA loss of comparative advantage to China, hence China exports are cheaper than USA. In addition, Trump's assertion is that cheaper China exports resulted from unfair trade practices e.g. Chinese subsidies and manipulation of Chinese Yuan (weaker currency through depreciation/devaluation). So with cheaper Chinese exports, demand for USA exports falls, and hence export revenue falls. Similarly, domestic consumption falls also with cheaper imports from China. Since both X revenue and C domestic falls, AD falls, resulting in a multiplied fall in real NY and rise in demand-deficient unemployment. *[Basically a reverse AD-AS analysis of the earlier diagram.] With export revenue falling and import expenditure rising, USA also suffers from rising trade deficit.*

In response, US imposed protectionistic measures such as a tariff on Chinese imports in order to protect jobs, incomes and reduce trade deficit. Figure 5 below shows the diagrammatic analysis for a US tariff on Chinese imports and the benefits of protectionism for USA.

Figure 5: Import Tariffs by USA



Due to the imposition of a tariff, the quantity of imports falls from  $Q1Q4$  to  $Q2Q3$ . This enables US firms to then produce more steel at the higher price of  $P_w + t$

	<p>at the quantity of Q2, instead of Q1 previously. Thus, this has positive impacts of</p> <ul style="list-style-type: none"> <li>• Reducing import expenditure [from <math>(Q_4 - Q_1) \times P_w</math> to <math>(Q_3 - Q_2) \times P_w</math>]. The rise in import price leads to a more than proportionate fall in quantity demanded of imports, since <math>PED_m &gt; 1</math> given domestic substitutes. With lower import expenditure, it will reduce trade deficit for USA.</li> <li>• Rise in domestic production from Q1 to Q2, hence rise in employment (more workers needed to produce Q2). As consumers switch from imports to domestically produced goods, C domestic rises, AD rises, leading to a multiplied increase in real national income and rise in employment.</li> <li>• Area C becomes tariff revenue for the US government. This could be used to finance long-run supply side policies to improve resource quantity and quality, hence strengthen comparative advantage for USA. With rising export revenue, it will reduce trade deficit.</li> </ul> <p><u>Evaluation</u></p> <ul style="list-style-type: none"> <li>• Both China pro free trade and USA pro protectionism are justified given their respective government priorities in the short-run. For China, it has strong CA and has benefited from export-led economic growth and employment. While China could be over-reliant on external demand for its economic growth and employment, the negative impact of protectionism is currently limited to its trade with USA. Hence benefits of free trade still outweighs costs of free trade.</li> <li>• As for USA, given the loss of CA to China and use of unfair trade practices by China, USA benefits from protectionism in the short-run so as to reduce its trade deficit and unemployment. While there could be costs of protectionism, such as higher prices and lower consumer surplus and productive inefficiency of domestic firms, the macro benefits of protectionism in terms of reducing trade deficit and unemployment could be US government priorities. Hence benefits of protectionism still outweighs costs of protectionism.</li> <li>• USA protectionism is not justified in the long-run given that nature of economy. If USA has indeed loss its CA to China and lack information to prove that China adopted unfair trade practices e.g. subsidising Chinese exports and currency manipulation, then USA protectionistic stance is not justified. In the long-run, US should instead implement SS-side policies like productivity and innovation schemes so as to regain its lost or to create new areas of CA, so that exports become price competitive. Once its SS-side policies mature, US should revert to a pro free trade position, rather than protectionism. With strong CA, USA will</li> </ul>	
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benefit from free trade with rising export revenue, reduced trade deficit, multiplied rise in real national income and increase in employment.		
<b>Levels</b>	<b>Descriptors</b>	
<b>Level 2 (5 – 7 marks)</b>	<ul style="list-style-type: none"> <li>Balanced and well-developed analysis on why US <u>AND</u> China differ in their positions on protectionism</li> <li>Clear, relevant, accurate and precise economic theories/diagrams, and supported with evidence from case study</li> </ul>	
<b>Level 1 (1 – 4 marks)</b>	<ul style="list-style-type: none"> <li>One-side analysis on why US <u>OR</u> China differ in their positions on protectionism <u>OR</u></li> <li>Under-developed analysis on why US <u>AND</u> China differ in their positions on protectionism, <u>BUT</u> lacking clear, relevant, accurate and precise economic theories/diagrams, and lacking evidence from case study</li> </ul>	
<b>For Evaluative Comment (1 – 3 marks)</b>	<ul style="list-style-type: none"> <li>Evaluative judgements on whose perspective is more justified</li> <li>Supported by a clear criterion, for example, US is less justified as it goes against the grounds of specialisation and trade (CA argument)</li> </ul>	