SERANGOON JUNIOR COLLEGE
JC2 Preliminary Examination 2015
H2 Economics 9732 Paper 1
Suggested Answers

Question 1

From Farm to Supermarket

Figure 1: Price Indices for Farm and Retail Food Products, 2006-2013
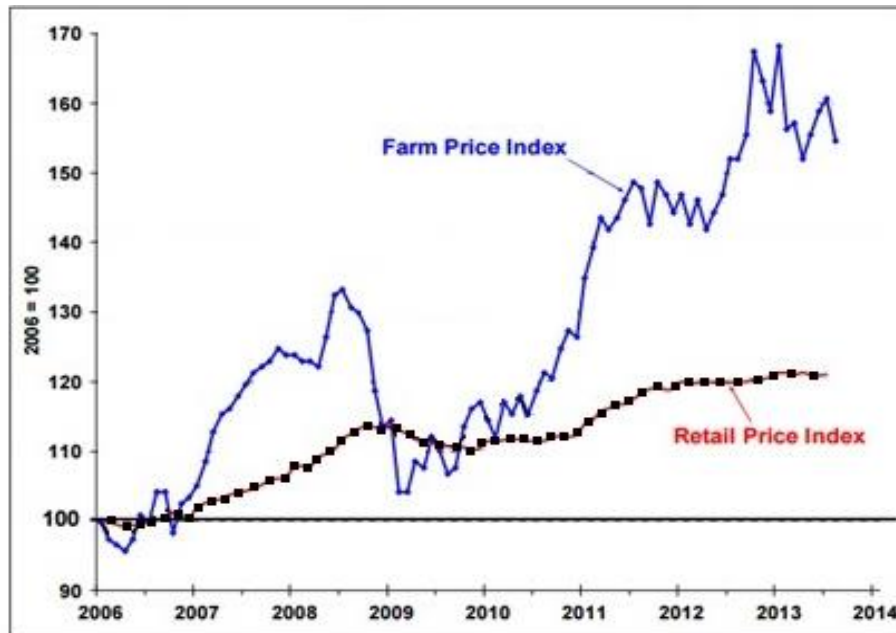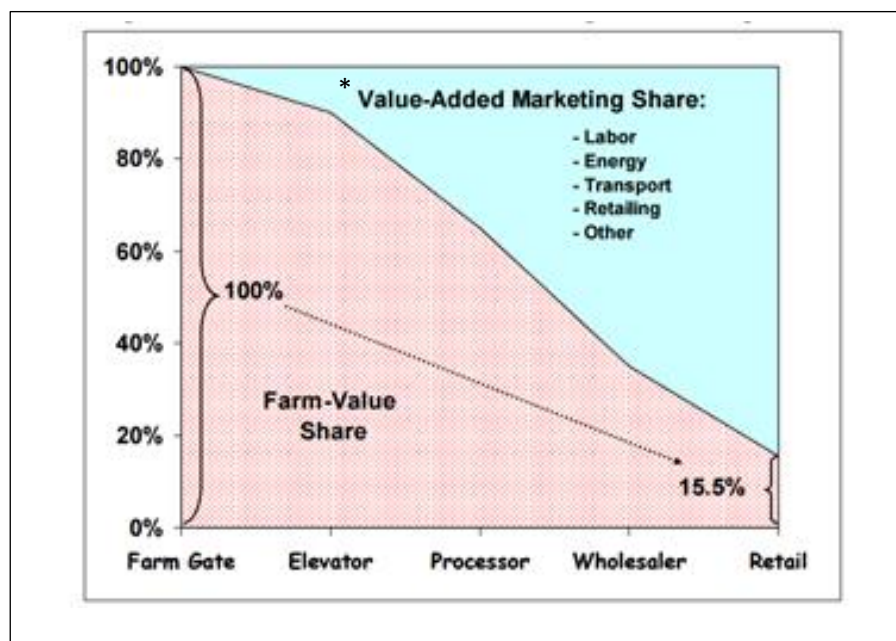

Figure 2: Value-Added to Farm Products along the Marketing Chain

*Value-Added Marketing Share costs include labour expenses for handling, sorting, cleaning, and packaging the product, transportation charges to move the product along at each stage, and fees for processing, storing, insuring, financing, and retailing the product (e.g., store maintenance and utilities, refrigeration, labelling, shelf display, advertising and promotional costs).

Table 1: Farm and Value-Added Marketing Share for Major Food Groups (as % of Final Retail Price)

Food Group	Farm Share (%)	Value-Added Marketing Share (%)
Eggs	53.7	46.3
Beef	49.4	50.6
Processed Fruits & Vegetables	17.0	83.0
Processed Cereals & Bakery Products	8.3	91.7

Source (Figure 1, 2 and Table 1): Congressional Research Service, *Farm-to-Food Price Dynamics*, 27 September 2014

Extract 1: Certain technologies create benefits that affect others in the community

Agricultural technologies that create spillovers often remain at low levels of adoption because some or all of the benefits from these technologies accrue to individuals other than the adopting farmer. For example, practices that conserve water, or control pests may benefit the wider community, not just the individual farmer. Similarly, the first farmers to adopt a new technology in a village may benefit other farmers. In all of these cases, as long as individual farmers are not rewarded for the benefits that they generate for others, they will invest less in a new technology than is preferable from the point of view of society.

Source: http://www.atai-research.org, accessed July 2015

Extract 2: How technology can boost African farming

The one area where information technology and communication technologies (ICT) can have the greatest impact in Africa is in the agricultural industry. One of the largest challenges traditionally experienced by Africa's smallholder farmers has been a lack of transparent information about the market prices of crops. One service that gives farmers access to market prices via their mobile phones is called Esoko. Esoko also allows farmers to place buy/sell orders.

"Our goal is simply to put more money into the hands of smallholder farmers, and try to address the problem of middlemen taking advantage of illiterate farmers who are frequently disadvantaged price-takers, often selling at a loss. After receiving better information, income improvements for farmers are estimated to be between 10-30%", says the company.

Source: http://www.howwemadeitinafrica.com, 18 December 2012

Extract 3: Food fight! Stores, producers, consumers battle over high food prices

In the past year, consumer food prices have increased 4.4%, compared with a 2.9% price increase for all consumer purchases. The costs of a few foods in particular have skyrocketed. In 2011, meat, coffee and peanut-butter prices rose 9%, 19% and 27%, respectively.

Increased production costs will continue to mean higher food prices for wholesalers, and these higher costs will inevitably be passed on to consumers. Retailers and producers are strategising, and sometimes battling it out head to head, to try to avoid sudden and exorbitant price increases on consumer goods — in order to keep consumers spending. What has developed is a push and pull between retailers and producers over which entity will absorb the higher costs. Some of these costs, of course, are passed off to consumers directly, in the form of higher retail prices. Companies are trying to innovate and increase efficiency to lower their own costs. Procter & Gamble is cutting 5,700 jobs. General Mills introduced a smaller Cheerios box that lowers production costs as well.

Source: TIME online, http://business.time.com, 12 March 2012

Extract 4: British farmers forced to pay the cost of supermarket price wars

You can pick up a punnet of British raspberries on a two-for-one offer in most supermarkets. But as shoppers reach for that quintessential summer treat, they should perhaps ponder the fact that it is the farmer, not the supermarket, who is paying for the generous discount.

The farmer may well be making no profit at all, with no choice in the pricing and little or no idea, when he picked and shipped the raspberries, how much he would get for them. Farmers do not talk about these things. Many of them dare not risk annoying the big processors and shops. There is a "climate of fear" – the National Farmers Union's phrase – in the monopolistic world of modern food retail: small farm producers are too frightened to speak out about the abuses that are impoverishing them because they risk "reprisals", which may mean losing the only customers there are.

Source: *The Guardian*, 2 July 2011

Extract 5: Choosing the right strategies for increasing farmers' market power

In the face of agrifood enterprises' concentration, farmers remain 'fragmented' and are the only ones to be subject to true competition. In an international context that is characterised by economic, technical and financial concentration leading to the increasingly large and powerful firms, farmers are an exception. Most of them are effectively isolated and small compared to other sectors and especially compared with the agrifood concerns (processors, distributors and retailers) that are their major buyers.

In this context, farmers can use several strategies to increase their market power. These strategies can be collective or individual. The collective strategies can be based on instruments such as market discipline (aimed at managing supply such as quota), forming cooperatives etc. The individual strategies entail searching for market niches (eg product differentiation by branding or labelling) and having direct access to consumer (eg through IT).

Source: Sophia Murphy*, Concentrated Market Power and Agricultural Trade*, 2011

Questions

(a) **(i)** Using Figure 1, compare the changes in farm price and retail food price from 2006 to 2013 . [3]

(ii) Using Figure 2, explain a possible reason for any difference between changes in farm price and retail food price. [2]

(b) With reference to Table 1 and Figure 2, suggest a possible reason for the difference in the marketing share of the final retail price among the different food groups. [2]

(c) With reference to Extract 1, explain how the market fails. [5]

(d) Discuss whether consumers or retailers of food are more likely to bear the burden of increased farm prices. [8]

(e) Improvements in technology cannot benefit farmers as much as measures to help them acquire greater market power. Discuss. [10]

[Total: 30]

Suggested Answers

(a) (i) Using Figure 1, compare the changes in farm price and retail food price from 2006 to 2013.   [3]

- Overall both increase
- Farm price shows greater price fluctuation whereas retail food price shows a more stable price increase.
- From end 2009 to end 2011, both farm price increases retail price increases but from 2011 to mid - 2012, farm price falls but retail price still increases.

    (ii) Using Figure 2, explain a possible reason for any difference between changes in farm price and retail food price.   [2]

       Possible reason for greater price fluctuation for farm price

- **The supply of farm products is more affected by weather rather than retail food products**.
  The supply of farm products eg wheat is directly affected by weather conditions. Good weather → bumper harvest →SS increases → surplus → price falls and vice versa for bad weather.
  However, most of the inputs used for producing retail food such as labour, machines and equipment and other raw materials are not affected by weather. Thus its supply is less subjected to the vagaries of the weather causing its price to fluctuate less.

  Possible reason why farm price increase but retail price increase but when farm price falls, retail price still increases

- **Share of farm product cost to total retail cost is small**. The cost of farm products is very small as a proportion of total cost of the retail product. As such large increase in farm price will not have much impact on retail price as profits are not affected. So the increased in retail price could be due to other factors that affect the costs of the other inputs for eg price of fuel. Likewise when farm price falls, retailers will not adjust price downwards as the impact on profits is minimal.

(b) With reference to Table 1 and Figure 2, suggest a possible reason for the difference in the marketing share of the final retail price among the different food groups.   [2]

Mkt structure: Different Degree of product differentiation/degree of competition
Process food such as cereal and bakery products is not as homogenous as unprocessed food like eggs and beef and they are sold in a monopolistically competitive market or oligopoly. Firms usually try to differentiate their products by spending heavily on advertising and promotions to inform as well as persuade consumers to buy their products. This is also partly due to imperfect knowledge as these products are very different from what they are originally made from. Thus there is more marketing cost needed to inform consumers about the product. On the other hand, the nature of products like eggs and beef do not lend themselves to as much product differentiation and there is little need for information as most consumers would already know what they are. So their marketing cost is much lower.

OR
Different length of marketing chain
Cereals and bakery products are goods that have a longer marketing chain as they are transformed from farm to the final product. They have to complete many stages of production before they are sold to consumers at retail outlets. At each stage of production, there are labour expenses, transportation charges, fees for processing and retailing the product, their value add marketing costs. In contrast, eggs and beef are primary/intermediate products have a shorter marketing chain as they are sold direct from farm to consumers. They require less processing and therefore less value add marketing cost.

(c) With reference to Extract 1, explain how the market fails. **[5]**

Mkt fails because of the presence of positive externalities associated with the use of better technology.

Define positive externality
Case material: technologies accrue to individuals other than the adopting farmer. For example, practices that conserve water, or control pests may benefit the wider community, not just the individual farmer.
Private benefit of adopting pest control: higher yields as farmers' crops are protected from pests such as rodents and bugs
External benefit of adopting pest control: When pests such as rodents and bugs are terminated in one farm, third parties such as other farmers in the surrounding areas also benefit as they will have a good harvest as their crops are protected from harm.
Explain analysis of how the presence of external benefit leads to partial market failure and inefficiency in resource allocation.

(d) Discuss whether consumers or retailers of food are more likely to bear the burden of increase farm prices. **[8]**

Effect of increase in farm prices on retail food prices
Increase in price of farm prices → increase COP of final products eg price of fresh turkey increases → COP of roast turkey increases → supply of roast turkey falls → SS curve shifts leftward S to S2. The **vertical distance between the supply curves represents the increase in COP** → at original price there will be a shortage ➔ price increases.

The increase in COP is shared between consumers and producers and the proportion borne by each is determined by the relative price elasticity of demand and supply for the good as well as other factors such government intervention.

Case 1: DD is price inelastic relative to supply

Define PED and PES
DD for roast turkey during Christmas period is price inelastic as it is a necessity for the Christmas season. Supply is more elastic as uncooked turkey can be kept in cold storage and as long as retailers have the inventories, they are able to respond to a price increase.
Initial price is Po → SS curve shifts to Se → increase in cost is P2P1
Before price increase, consumers pay Po but after price increase consumers pay P1. The remainder is paid by retailers. Consumers burden: PoP1. Retailers burden: PoP2

Outcome: consumers bear a higher burden compared to retailers. Reason: Since demand is price inelastic relative to supply, shifting more of the higher cost to consumers will only result in a less than proportionate fall in quantity demanded and so total revenue of producers increase.

Case 2: DD is price elastic relative to supply

After Christmas: DD for roast turkey is price elastic as roast turkey is no longer a festive food and consumers have many substitutes such as other meat products. SS is less price elastic as the stocks that are left over have to be sold quickly as there are expiry dates for their consumption.

Consumers burden: P_0P1
Retailers burden: P_0P2

Thus, consumers bear a lower burden than retailers. Reason: Since demand is price elastic relative to supply, a small increase in price will result in a more than proportionate fall in quantity demanded and total revenue falls. Thus retailers would not dare to shift a higher proportion of the increase in cost to the consumers and would rather absorb more of the cost.
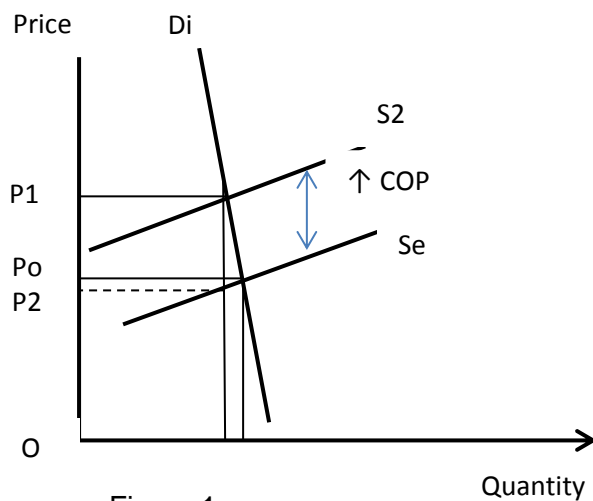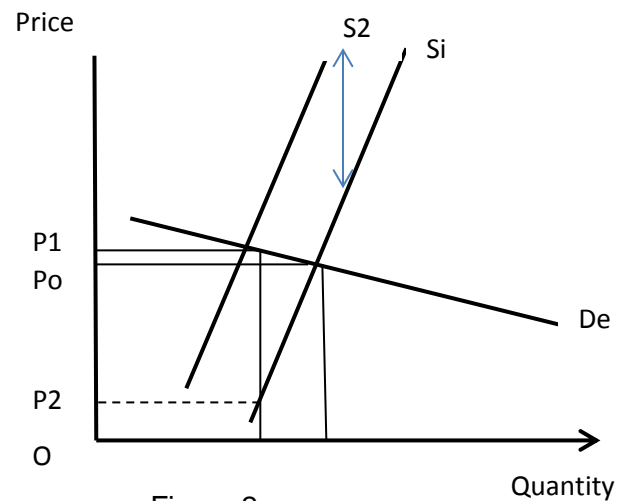

Figure 1

Figure 2

Case 3: Government intervention such as price ceiling and subsidies

When government implements a price ceiling which is a maximum price below the equilibrium price, consumers need not have to pay the full extent of the increase in price. So the burden borne by the consumers is lesser.

In conclusion, the major determinants of who will bear more of the burden of increase in farm prices are mainly the relative elasticity of demand and supply for retail food assuming no government intervention. If there is government intervention in the form of subsidies to consumers, then the share of consumers' burden will be passed on to the government.

L3	Students need to give just 2 cases. Shows clearly at least 2 cases who bear more or less of the burden of the increase in farm prices. Clear explanation with relevant examples as to why PED and PES are elastic or inelastic and the effect of increase in farm price on price of retail food. Diagrams are correctly drawn and explained.
L2	Answers cover only one case, with clear explanation of why demand or supply is elastic or inelastic OR Answers cover 2 cases but explanation is not very thorough.
L1	Answer may consist of just an explanation of why retail price increase but there is no real understanding of what the question is asking about.

(e) Improvement in technology cannot benefit farmers as much as measures to help them acquire greater market power. Discuss. **[10]**

Market power refers to the ability of a firm to influence price of its product by varying output.

P1: Faced with buyers who have substantial market power, farmers lack of market power results in them making lesser profits
Assumption: Farmers are producers who want to maximize profits. Profits = TR –TC
Farmers sell their products to supermarkets which have monopoly power (Extract 4).
But: " farmers are fragmented … small" compared to other firms. This implies that every farmer produces a very small proportion of the total market supply and therefore he has no power to influence the market price of the product he sells. He is a price taker. Retailers are the only major buyers of farm products. As these retailers are monopolies and the price that farmers received may be below their marginal cost.

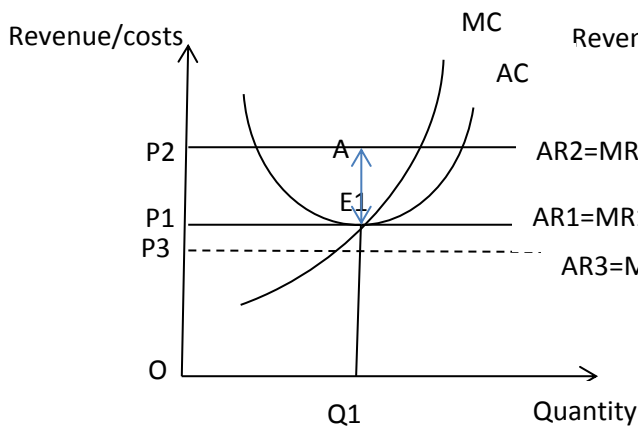Result: Due to their absence of market power, farmers make less profit.
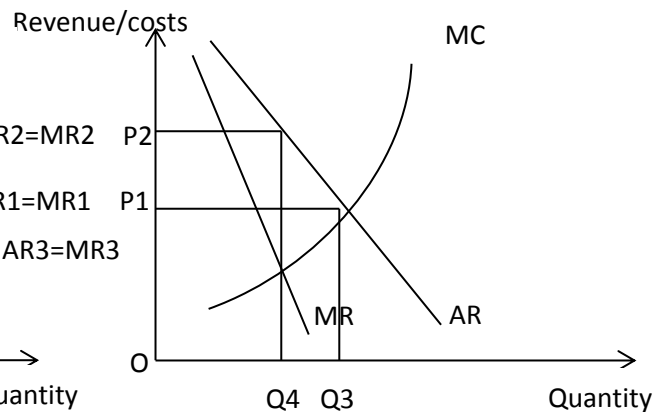

Figure 1   **Figure 2**

Under a perfectly competitive market, the market price is determined by market demand and supply which is P1 (Fig2). Individual farmers as price takers will accept this price and produce at the profit maximizing output at Q1 where MC=MR1 and earn normal profits where AR=AC as shown in Fig 1.

However, the buyers of the farm products are the retailers who are monopolies (Extract 4) and therefore the price that the farmers received may be less than P1 as they know that individual farmers have no market power. If the price offered to farmers is P3, farmers will be making a loss as AC is now higher than AR3 for all output levels.

Thus, the lack of market power results in farmers making losses.

P2: But if farmers have greater market power to negotiate with retailers they can earn higher profits
 Farmers can increase their market power by forming cooperatives. If farms pool their products together and sell them through the cooperatives, they will have greater bargaining power. By collectively reducing their output, they can influence market price as they can cause a shortage in the market. Thus, farm cooperative will have greater market power and therefore its demand curve is downward sloping and AR is now greater than MR.

With reference to figure 2, the cooperative will maximize profits for all farmers by selling output where MC=MR at output Q4 and price is P2. Once again, individual farmers are price

takers and at P2, at its profit maximizing output Q1, the farmer can sell its product at P2 instead of P1 and is making supernormal profits of E2A per unit of output. With more profits, farmers are better able to afford to adopt new technology to increase farm output which will increase farm income further.

Thus, having greater market power allows individual farmers to sell their goods at a higher price and therefore earn higher profits.

Evaluation
Having greater market power may not necessarily benefit farmers.
Although the cooperative is able to negotiate a higher price for farm products, how much revenue a farmer can earn is dependent on the volume of output he has available for sale. Take the example of an extreme case, serious flooding (drought, pests) can totally destroy a farmer's output and much as the price is higher, his total revenue is zero. For farmers who are subjected to such regular flooding advance technology such as flood control could be more beneficial to farmers as this will ensure him a regular income as farm output is not disrupted.

P3: Improvement in technology helps farmers to enjoy lower cost of production and therefore higher profits.
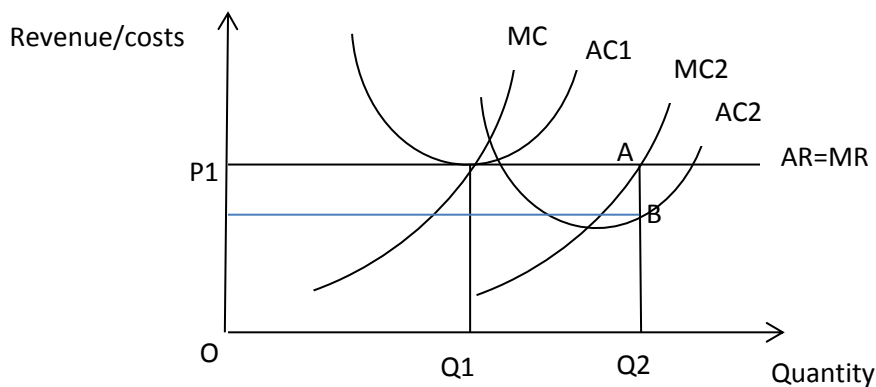

Figure 3: Effect of improvements in technology on costs and profits

Use of agricultural technologies such as using better quality seeds and fertilizers, better machinery and equipment, etc leads to increase in productivity which lowers the cost of production. Output per hectare increases and so with a given market price, ceteris paribus, total revenue increase.
Initially, individual farmers make normal profits at Q1. But with the improvement in technology, MC and AC falls to MC2 and AC2. At the given market price of P1, the firms total revenue increase as output is higher now (Q2). The farmer is also making supernormal profits of AB per unit.

Thus, improvements in technology lead to higher profits for the individual farmer.

P4: Technology helps farmers to overcome problem of imperfect knowledge and thereby helping farmers to earn higher revenue.
With the use of IT, farmers are able to access information concerning prices of inputs from different suppliers and the prices offered by different buyers. In this way they are able to source for the lowest cost producers and highest price buyers which allow them to earn more profits. Alternatively, farmers can also use make use of IT to sell directly to consumers instead to retailers only. In this way they are enlarging their market and demand thus total revenue to increase. They can also develop niche markets through product differentiation

and with the use of ICT they are better able to market their products thus increasing their total revenue.

Evaluation:
Though with better technology output may increase but without market power and if they have to sell to monopolist retailers, the price that they received for their products will be very low. Also, if all farmers are using better technology, the market supply will increase and eventually driving the price down. The supernormal profits will be eroded away. Individual farmers may not be able to benefit from advances in technology as better quality seeds and fertiliser are more expensive and as small farmers they may not be able to obtain loans to purchase them. The excessive use of fertilisers may also cause pollution and eventually causes yields to fall. Moreover, due to illiteracy, farmers may not know how use new technology, or may not know the information of new breakthroughs in technology. Thus, improvements in agricultural technology may not benefits farmers as much.

| L3	Thorough analysis of benefits of market power and the improvements in technology supported by some examples and good use of case materials. There is evaluation of benefits with a clear expression of judgement.
L2	Student demonstrated understanding of the benefits of either improvement in technology or market power. Or the explanation is not sufficiently thorough when attempting to explain benefits of both cases. Explanation makes little reference to the context. There should at least be demonstration of knowledge of what is market power, profits and total revenue and how market power and technology affect these. Very limited evaluation.
L1	Sketchy explanation of the benefits of improvements in technology and market power.

Question 2

Internal and External Imbalances

Extract 6: Changing trade patterns

The relative importance of different countries and regions in specific markets is set to change markedly over the coming decades, driven by diverging growth performance, changes in relative productivity and production prices. Notably, China, India, other Asian economies and Africa are projected to become the dominant players in manufacturing, while most OECD countries are expected to lose ground.

Figure 3: Countries' share in world exports by industry, 2010 and 2060 (%)
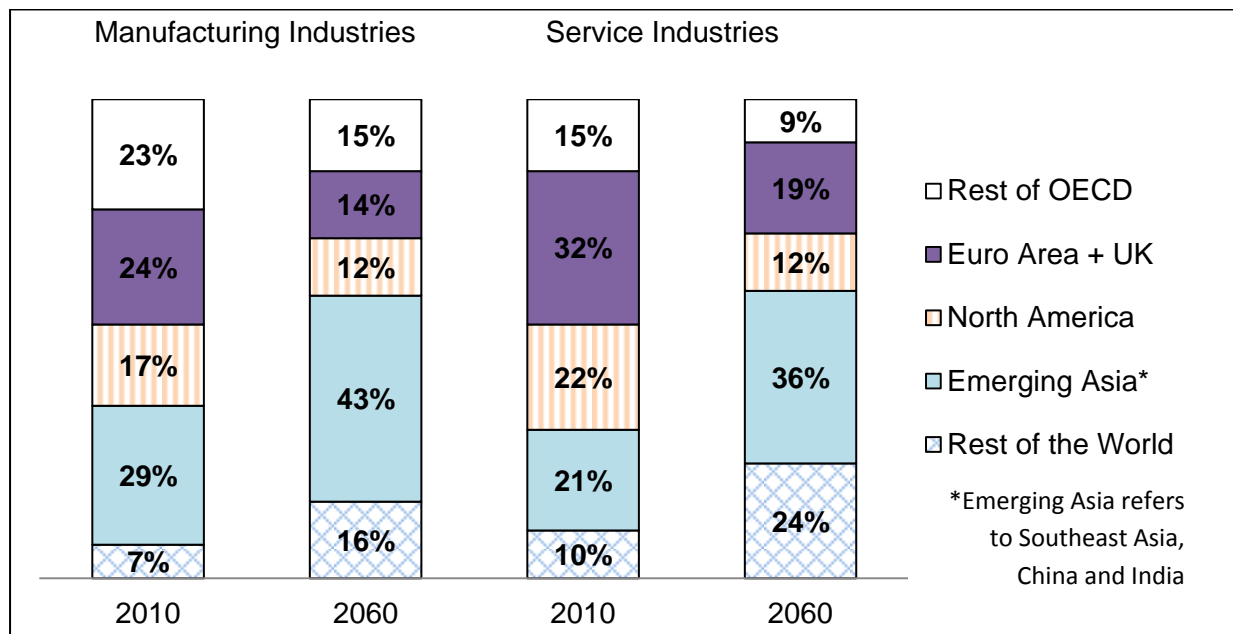
Source: *Trade patterns in the 2060 World Economy*, OECD, December 2014

Extract 7: Fragile economies under pressure

The "fragile five" – Turkey, Brazil, India, Indonesia and South Africa – are considered particularly vulnerable to an exodus of foreign capital as the prospect of higher interest rates diverts funds back to the US in search of higher returns. The fate of the fragile five is important, not least because they account for more than 12% of global GDP, and have contributed almost one-fifth of world economic growth since 2009.

Ben Bernanke, the Fed chairman, has argued that emerging markets will ultimately benefit from policies that are designed to create a stronger US economy. He, along with the world's policymakers, will be hoping that the waves in emerging markets created by the winding down of the US Federal Reserve's quantitative easing programme will prove to be a bump on the road to global recovery, and not the beginning of a fresh crisis. Here we look at the problems that some emerging markets are facing.

Brazil

According to the IMF, the government budget deficit of Latin America's largest economy will reach 3.3% of its GDP this year, while the current account deficit is estimated at 3.6%. Brazil's trade balance in 2013 is the worst for 13 years.

Meanwhile, consumers are now laden down with record levels of debt. The country's decade-long consumption binge has helped drive annual inflation close to the 6.5% ceiling of the central bank's tolerance band, forcing the government to enforce costly fuel subsidies to help cap prices.

Brazil has also been steadily increasing interest rates in the battle against inflation and a weakening real – the currency which has fallen by about 15% against the dollar over the past year. Rates have risen by 3.25% points over the past nine months, and the central bank's latest move was to push them up a further half-point, to 10.5%, in January. Economists are expecting another rise this month.

But growth prospects are deteriorating. Some analysts had expected the tightening of monetary policy to stop after the economy shrank in the third quarter of 2013, for the first time since 2009. But the increases have continued, underlining some of the unenviable choices faced by the country's policymakers.

India

In 2013, India's current account deficit reached a record of 4.8% of GDP, in part due to high gold imports. The yellow metal is one of the biggest contributors to the country's trade imbalance, second only to oil.

The government budget deficit of India is expected to reach 7.2% of its GDP and the current account deficit 2.4% in 2014. Like several of its emerging market peers, India raised interest rates last week, in its case by a quarter-point, to 8%, in an attempt to rein in consumer price rises and prop up the currency.

It was a surprise move by Asia's third-largest economy, with analysts predicting no change before the decision was made. Inflation has been slowing, but consumer price inflation remains high: it was close to 10% in December. The Reserve Bank of India has proposed a target of 4% inflation by 2016.

Despite these figures, the country is currently lifted by optimistic sentiments as reform-minded Narendra Modi won the election, while the current account deficit has narrowed rapidly as exports improved, remittance inflows remained solid and higher import duties and quantitative restrictions discouraged gold imports. In addition, non-oil, non-gold imports have declined in line with weak domestic demand, and capital inflows have strengthened.

Indonesia

Indonesia resisted increasing interest rates for a second month in January, against a backdrop of stable inflation, at 8.4% in December. The central bank said it was closely monitoring the impact of the Fed's tapering programme, after growth in south-east Asia's largest economy slowed to its weakest rate in four years last year, with a poor trade position and the outflow of foreign capital taking their toll. The current account deficit is expected to be around 3% of its GDP. The rupiah was the worst-performing emerging market currency in 2013, down around a fifth against the dollar.

The Indonesian government and central bank (Bank Indonesia) are making efforts to curb the current account deficit and combat high inflation. Therefore, it kept the benchmark interest rate at the relatively high level of 7.5%.

<div align="right">Adapted from The Guardian & www.indonesia-investments.com, February 2014</div>

Extract 8: Only structural reforms can reduce current account deficit: ADB

"The Asian Development Bank (ADB) forecasts that Indonesia's economic growth will soften slightly to 5.7% in 2014, before picking up to 6.0% in 2015," ADB's country director for Indonesia, Adrian Ruthenberg, said in a release made available to The Jakarta Post on Tuesday. The current account is also projected to post a deficit for 2015.

The ADB said reducing Indonesia's current account deficit, which is mainly caused by trade deficit in the oil and gas sector, would remain a challenge in 2014 and beyond. Domestic oil output has been in a state of decline for almost two decades due to a lack of investments and exploration in combination with maturing oil fields and, secondly, domestic fuel consumption has risen sharply in recent years amid solid economic growth and generous government fuel subsidies. Structural factors have also contributed to the problem. The deterioration that started in 2003 suggests that Indonesia's export competitiveness, particularly in manufacturing, has eroded. The rupiah has appreciated in real effective terms, and labour productivity in manufacturing has fallen below rates achieved in neighbouring countries.

"To address this challenge, Indonesia's government has taken steps to slow domestic demand, spur exports, and dampen imports," said Edimon Ginting, ADB's deputy country director for Indonesia.

<div align="right">Source: The Jakarta Post, April 2014 & Asian Development Bank, 2014</div>

Questions

(a) **(i)** Using Figure 3, describe the changes in the relative shares of world exports of manufacturing and services for North America and Emerging Asia between 2010 and 2060. [2]

     (ii) Explain how the concept of opportunity cost can be used to explain the changes you observed in (a) (i). [4]

(b) Using AD/AS analysis, explain how emerging economies can benefit from a stronger US economy. [4]

(c) Explain a possible link between the level of interest rates in a country and its exchange rate. [2]

(d) **(i)** Discuss whether Indonesia or India should be concerned with its current account deficit. [8]

     (ii) Using the data provided and your own relevant knowledge, discuss the factors that might influence a government's choice of policy options when faced with the twin problems of current account deficit and inflation as described in the case study. [10]

<div align="right">**[Total: 30]**</div>

Suggested Answers

(a) (i) Using Figure 1, describe the changes in the relative shares of world exports of manufacturing and services for North America and Emerging Asia between 2010 and 2060. [2]

North America's relative share of world exports of both manufacturing and services industries have fallen, while Emerging Asia's relative shares of world exports of both manufacturing and services industries have increased.

(a) (ii) Explain how the concept of opportunity cost can be used to explain the changes you observed in (a) (i)? [4]

The change in the relative shares of world exports of the 2 regions could be due to the changes in technology that affect productivity and opportunity costs of producing these goods.

The decline in North America's share of world's exports of manufacturing and services might be attributed to the rise in its opportunity costs of producing these goods or its loss of comparative advantage in these industries to Emerging Asia. Due to rapid gains in technology in Emerging Asia and the increase in the level of education and skills in its labour force, Emerging Asia is increasingly able to produce lower-end manufactured goods and certain types of services (low-end) at a lower opportunity costs compared to North America.

For example, in 2010, North America might incur a lower opportunity cost of producing machines in terms of its next best alternative good forgone such as food crops, compared to Emerging Asia. However, by 2060, Emerging Asia could have made great gains in technology advancements and also increased the skills and education levels of its labour force such that its opportunity cost of producing machines is lowered to a level that is lower than that incurred by North America. As such, by 2060, Emerging Asia has gained comparative advantage in machine production at the expense of North America. The same explanation could be advanced for the rising share of world exports of services too. In this case, North America might have lost comparative advantage in low-end services.

(b) Using AD/AS analysis, explain how emerging economies can benefit from a stronger US economy. [4]

With a stronger US economy, emerging economies such as India, China and Indonesia will experience a faster economic growth and an improvement in their balance of payments. As the US experience economic growth, there is a rise in purchasing power of the US consumers that raises their demand for imports. US firms would also increase demand for imported inputs from emerging economies. These will lead to a rise in import expenditure of US. As US is a key trading partner of many emerging economies, the rise in import expenditure in US will lead to a rise in export revenue of emerging economies.

At the same time, the stronger US economy improves the financial ability and confidence of the US firms to invest in other countries such as the emerging economies.

Both the rise in export revenue and inward investment of US firms into emerging economies increase the level of AD in emerging economies. This is because export revenue and investment are components of AD. Due to the rise in AD, there will be a shortage of goods and services in the economy.

Assuming that the emerging economies are not operating at full employment, as the price rises, the firms will respond by increasing the production of the goods and services. This will lead to a rise in real national output and hence economic growth.

Alternatively, students can include the multiplier process as follows:
Assuming economy is not near full employment (AS curve horizontal), when AD rises, shortage results that induces firms to hire more factor inputs to increase production. Thus incomes rise and this will lead rise in induced consumption which further increases production and incomes. The multiplier process continues until a new equilibrium level of national income where AD=AS is attained. Eventually total rise in national income is more than the initial rise in export revenue and investments.

(c) **Explain a possible link between the level of interest rates in a country and its exchange rate.** **[2]**

The rise in interest rates in a country will lead to an appreciation of the domestic currency relative to a foreign currency. This is because the rise in interest rates will attract hot money from abroad (short term capital inflow) as the returns are higher. Hence, this will lead to a rise in demand for the domestic currency, resulting in a shortage. Therefore, the price of domestic currency, which is the exchange rate, will appreciate.

(d)(i) **Discuss whether Indonesia or India, should be concerned with its current account deficit.** **[8]**

Introduction
A current account deficit means that the country's total expenditure on imports of goods and services, factor incomes from abroad and net unilateral transfers exceed its total earnings from export of goods and services and factor incomes paid to abroad. A current account deficit implies that a country is living beyond its means. Whether this deficit should be of concern to the government depends on a few factors such as the size and nature of the deficit and its causes.

Body
The size of current account deficit as % of GDP for both Indonesia and India are comparable, 3% and 2.4% respectively (Extract 7). This size in itself may be considered small and thus not a cause for concern for both economies.

However, if we study the trends, Indonesia's deficit seems to be more persistent than that of India's. In fact, Indonesia's current account deficit has started in 2003 (Extract 8). On the contrary, India's deficit has declined somewhat. Also, upon closer examination into the causes of the deficit, Indonesia's deficit is a result of fundamental structural issues. For example in Extract 8, it was mentioned that part of the deficit was due to the country's "lack of investments" in the oil and gas sector and "maturing oil fields." The lack of investments resulted in fall in productivity and efficiency in the sector and this coupled with the maturing oil fields means that it is increasingly difficult to increase the domestic supply of oil. Hence, the country is forced to increase its oil imports and this explains the rise in import expenditure.
In addition, labour productivity in Indonesia is falling relative to its neighbours. Ceteris paribus, this means that its unit labour costs in particular in manufacturing, rises and so this may force its firms to increase its export prices. Hence, it is not surprising that Indonesia is also losing its export competitiveness in manufacturing as mentioned in Extract 8.

The situation for India is different. India's deficit was attributed to the rise in gold imports (Extract 7) as the people buy gold as a store of value. Government attempts to reduce gold imports by imposing tariffs have been successful in reducing gold imports. This coupled with the rise in India's exports have narrowed the current account deficit.

Synthesis & Conclusion

From the data provided, I think that Indonesia should be more concerned with its current account deficit than India because the problem has persisted for a long time which suggests that there are serious fundamental structural weaknesses in the economy that the government has not addressed successfully. Reducing the deficit would require painful structural adjustments which can be costly yet necessary. However, it seems that the Indian government has less to worry about its current account deficit because the current policies seem to work.

Mark scheme

L3	Adequate to rigorous economic analysis is consistent throughout the answer. Good use of relevant data to support key ideas. ***Clear and logical reasoning to determine choice of country with reference to setting criteria for decision-making.*** ***Awareness of the limitation of data.***
L2	Adequate to rigorous economic analysis is evident. Some use of relevant data to support key ideas. Some attempt to apply and explain criteria for decision making. Coherent and logical response. If response is largely theoretical, with very limited reference to case material, then award max L2.
L1	Some understanding of the problem of current account deficit and its causes. Limited attempt to address the question. Lack of clarity in explaining choice of country.

(d)(ii) Using the data provided and your own relevant knowledge, discuss the factors that might influence a government's choice of policy options when faced with the twin problems of current account deficit and inflation as described in the case study.   [10]

Introduction

The choice of government policies most often depends on the relative effectiveness of the policies in solving the problem which are affected by the conditions in the economy as well as the effects of the policies on other economic goals of the government. Faced with the twin problems of current account deficit, the government may need to prioritise especially when the policy measures used to solve one of the problems conflict with the other goal.

Body

Factors that affect the government's choice of policy:
1. Effectiveness of policy in solving each of the 2 problems (does the policy tackle the root cause of the problem? do the economic conditions in the country support the use of the policy?)
2. Consequences of the policy on other economic goals of the government
3. Feasibility & Sustainability (Is the solution feasible? Is it sustainable?)

Policy	Current account deficit	Inflation
Contractionary FP/MP - Explain how the policy can solve both problems simultaneously. - The choice of policy largely depends on effectiveness to solve each of the 2 problems *Implication on government's choice of policy* Contractionary demand management policies can solve the 2 problems simultaneously and might be a good choice if inflation also happens to be the cause of the deficit problem. Assuming that all the conditions for the effective working of the policies are satisfied, whether this is the best policy option really depends on whether the country is prepared to accept the ensuing slower economic growth and unemployment.	Effectiveness depends on: 1. Interest elasticity of consumption and investment demand 2. IED for imports 3. PEDx determines the extent of rise in qty dd for exports given a fall in its price *Some application* IED for M: India – part of the deficit problem is due to high importation of gold (held as a store of value). Hence, IED may be high – the higher the income level, the greater will be the % rise in DD for gold imports. Thus contractionary MP may be effective in reducing imports. But Brazil: consumption-led growth may mean C of all including luxury goods. Thus IED is high. So contractionary policy more effective in reducing M and hence reduce the deficit. XEDm wrt Pd – Are dom gds good substitute for M? Indonesia: import capital goods not produced much in dom economy. So limited substitution despite lower domestic prices.	Effectiveness depends on: 1. Interest elasticity of consumption and investment demand 2. Openness of the economy to capital flows such as "hot money" *Some application:* Brazil: high ratio of household debt. So C expected to be sensitive to higher interest rates as people are already concerned with ability to repay the debt. India: optimistic outlook. So higher interest rates and hence cost of borrowing may not deter C or I significantly as firms expect higher future profit and households expect higher future incomes.
Supply-side policies Necessary for all economies e.g. Brazil – mkt friendly policies, Indonesia – structural reforms. Suggest any e.g. of one policy option and explain how supply-side policies can solve the twin problems. *Implication on govt's choice of policy* Supply-side policies can be very costly and the effects are not immediate. However, delaying its	Effectiveness depends on: - Time lag - Funding - Willingness of firms/people to train, invest etc	Effectiveness depends on: - Time lag - Funding - Willingness of firms & people to train, invest etc All countries in the case study are emerging economies. Budget deficit is a constraint for all. May consider market-oriented reforms instead

implementation may make the deficit problem worse esp when other trading partners are constantly innovating and improving their technology. As such, although cost may be a big problem for many emerging economies, these policies must still be undertaken even if in small scale. The returns to investment in the future can be used to pay for the debt incurred in financing these programmes today.		
Depreciation	Effectiveness depends on: - PED for exports and imports (Marshall-Lerner condition) - PES	Depreciation worsens inflation ☹ Govt may not use currency depreciation because it will worsen inflation, thus may aggravate the deficit problems. This is because the inflation could erode the country's export competitiveness.
Subsidies/price ceiling to solve inflation	Indonesia: subsidies increase import spending. By artificially lowering the price of fuel, it encourages more consumption and hence more imports. This worsens the deficit problem. Also, subsidies distort the allocation of resources and leads to over-consumption problem. Finally, government budget balance is also adversely affected. Subsidies thus impose very high cost to the country. Thus, should be considered only if the benefits (making it affordable to the poor) outweighs the costs.	SR effective but budget deficit, so not sustainable. Also does not solve the root cause of the problem.

Conclusion
Governments often face many problems simultaneously and this makes choice of policy option more complicated. Besides considering the effectiveness of each policy, there are also costs and trade-offs to consider. The most effective policies to solve a problem today need not necessarily be the best policy option for the country in the future. Thus, governments must constantly consider all these factors so that the best outcomes can be attained for the country.

Mark Scheme:

L3	- Good explanation of the factors that affect choice of policy when dealing with the twin problems. - Competent and balanced discussion of the significance and importance of these factors with reference to the examples given in the case study. - Clear explanation of the implication of the above on government's choice of policy option (see example in answer for contractionary MP/FP & supply-side policies. - Well-reasoned conclusion.
L2	- Adequate explanation of the policies to deal with the twin problems. - Some attempt to explain the factors that might influence the government's choice of policy option. - Some limited attempt to discuss the significance or importance of these factors and its implications on the government's choice of policy option. - *Note*: for responses that largely but adequately explain and evaluate the policies with no clear attempt to respond directly to the question, award max L2
L1	- Some explanation of the policies to deal with the twin problems or one of the 2 problems. - Answer is largely regurgitation of policies and with limited evaluation of policies. Answer may not directly address the question. - Limited application to the case study material.