

HWA CHONG INSTITUTION College 2 Preliminary Paper 2008 General Certificate of Education Advanced Level **Higher 1**

ECONOMICS 8819/01

29 August 2008

3 hours

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

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

Section A

Answer **all** questions.

Section B

Answer **one** question.

At the end of the test, fasten all your work securely together.

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

Extract 1: Global Pharmaceutical Industry

The global pharmaceutical industry consists of thousands of companies, including biotech firms, generic drugmakers, contract research organisations, wholesalers and retailers. On top of them all sits "Big Pharma"— a dozen or so multinational firms with headquarters in Europe or America. Their sales account for roughly half of the world's \$500 billion retail drug market.

On the face of it, Big Pharma firms are in a business to die for. Populations in rich countries—and increasingly developing ones too—are getting older, and many people suffer from chronic conditions. But behind the healthy glow, a more worrying picture emerges. In the past few years large drug companies have had trouble getting new drugs out of their pipelines and into the market. At the same time, several high-profile medicines have been withdrawn because of safety concerns.

The internal struggles of the world's leading drugmakers have been compounded by a broader social debate about the purpose and practices of the industry, again mostly in America. The US pharmaceutical industry is dominated by a few large firms that make up a significant share of the market. It has been argued that the drug industry derived a higher rate of return on its investment than other American industries. It has been argued that the pharmaceutical companies have at times exaggerated in their claims for the therapeutic value of certain drugs. It has been argued that the drug companies have spent an unreasonable portion of their budgets in order to indoctrinate doctors so that they would prescribe high-priced trade-marked products.

Some critics of the drug industry argue that drugmaking should be taken out of private hands and put in the public domain; after all, many of the basic discoveries that drug companies develop and profit from came from universities and government institutes in the first place. But there is little evidence that governments or universities are any better than the private sector at bringing new drugs to market. The top US pharmaceutical companies have collectively invested around 18% of sales on R&D over the past 7 years. The government may not like the way drug firms choose to spend their R&D dollars, or how they go about promoting their wares, but at least they have a record of bringing them to market in the first place.

Adapted from: Prescription for Change, 16 Jun 2005, The Economist

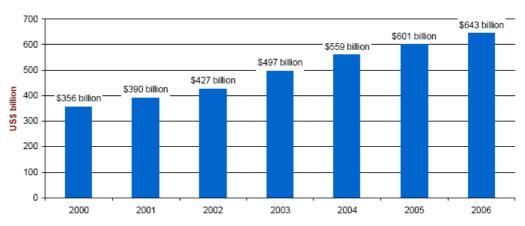
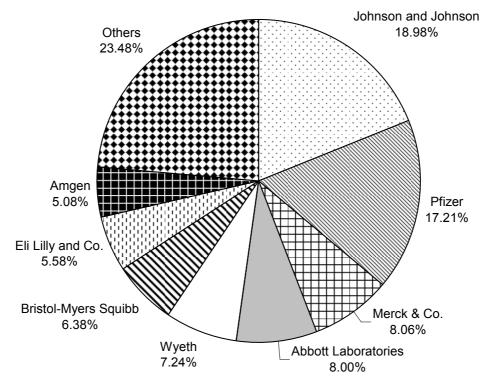


Figure 1: Global Pharmaceutical Sales

Global pharmaceutical sales 2006

Source: IMS Health, February 2007





Source:http://en.wikipedia.org/wiki/List_of_pharmaceutical_companies

Extract 2 – Chinese Pharmaceutical Industry

In China, the biopharmaceutical industry has been recognized by the government as the most important and promising sector for the 21st century. With a healthy 20–25% annual growth rate and a diversified pipeline, the Chinese biopharmaceutical industry is moving toward globalization.

The first Chinese biotech companies were mostly vaccine providers. These organizations have a relatively long history in China, and because of the domestic healthcare and vaccine needs of the world's largest population they tend to be quite large.

In China vaccines are classified into two categories: government "planned immunization" vaccines and "non-planned immunization" or "charged" vaccines. The first category of vaccines is ordered by the government, and supplied to Chinese citizens (mostly children) at no charge, in light of the benefits these vaccines possess. In the current Chinese market, domestic products completely control the planned immunization vaccine market.

The second category is for-profit with high margins of 30–40% for imported vaccines and more than 50% for domestic vaccines. These are "charged for," or "non-planned" vaccines, produced by manufacturers based on the market demand. The charged vaccines may be purchased by consumers voluntarily.

Chinese domestic vaccine manufacturers are now facing challenges as a growing number of imported products are entering the market. Domestic vaccines have dominated the Chinese market for decades, thanks to government protection (through restriction on foreign companies to set up vaccine manufacturing facilities) and lower prices. Furthermore, the majority of these Chinese biotech firms do not invest enough in R&D and as a result do not possess innovative research personnel. Thus, the question posed in China today is how competitive are its domestic vaccine manufacturers compared with the multinational giants.

"Which other country (than China) in the world would be able to satisfy the needs of vaccines for 1.3 billion people?" asked Dr. Weidong Yin, CEO of Sinovac Biotech. "Only we Chinese people can help ourselves. We will master core technologies and protect national security and public health...to prevent public crisis such as pandemic influenza, the key is to develop Chinese-owned vaccine products." Given the demographics, healthcare policy, and national needs, we believe there is a promising future for the Chinese vaccine industry.

Adapted from: China Today: Vaccine Development in China, Eliza Yibing Zhou, BioPharm International Vol 20 Issue 4, April 1, 2007

Tasks:

- (a) (i) Summarize the trend of global pharmaceutical sales from 2000 2006. [2]
 - (ii) From Extract 1, use demand and supply analysis to account for the [5] trend.
- (b) Explain the evidences from data which suggest that pharmaceutical [3] companies in US enjoy market power.
- (c) (i) Explain two possible sources of market failure that could account for [4] the Chinese government's provision of vaccination.
 - (ii) Evaluate the above policy that the Chinese government uses for [8] planned immunization from the efficiency viewpoint.
- (d) Given the different situations in US & China, assess if protectionism is [8] the best policy for China's pharmaceutical industry.

[30marks]

Question 2 Globalisation and Inflation

Extract 3

The entry of China, India and Eastern Europe into the global market economy effectively doubled the economy's labour supply driving down the wages of unskilled labour. The result of this progressive integration of more countries into the international trading system - production of goods and services that is intensive in the use of unskilled labour and labour-intensive elements within production cycles have shifted to these emerging economies. This has increased the scope for businesses in the industrialised world to organise production in the most cost-efficient manner possible.

However, the rapid Asian growth has also been a major driver of the tripling of oil prices since 2004, as well as pushing up the prices of non-oil commodities substantially. Countries importing these commodities have therefore suffered an increase in the price of these imports.

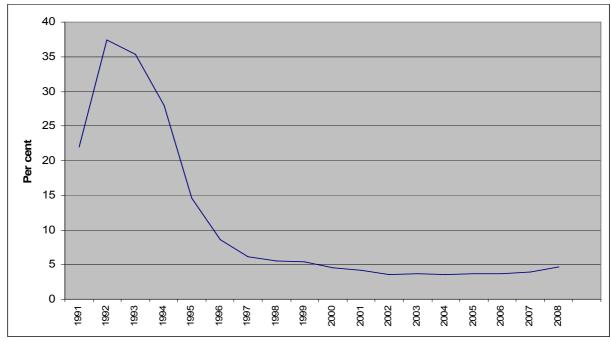
Globalisation has changed the inflationary process. Increased competition from these labour-abundant economies, freer movement of labour and increased trade and specialisation associated with globalisation reduces the response of inflation to the domestic output gap¹, and at the same time potentially more sensitive to the balance between world demand and supply. Variations in aggregate demand become less effective as a means of controlling inflation.

The integration of China and the other emerging economies represents both an opportunity and a challenge for the industrialised economies. It is an opportunity because it allows a more efficient international division of labour and has the potential to raise living standards in both East and West. And it is a challenge because the global relocation of activities potentially involves losers as well as gainers. The danger is then that the realisation of those potential gains is prevented by the imposition of protectionist measures.

> Adapted from Speech by Charles Bean Executive Director and Chief Economist of the Bank of England, 24 October 2006

¹ Output gap refers to the difference between actual output and the potential output.

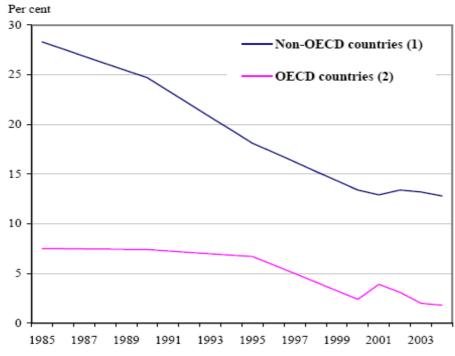
Figure 1: World inflation rate 1991 to 2008*



* Estimated for 2008

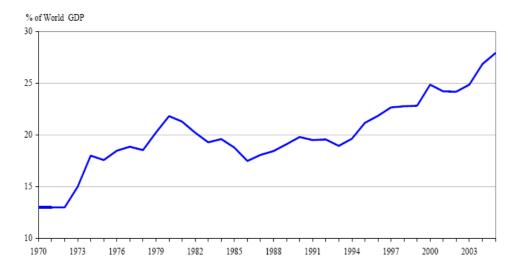
Source: International Monetary Fund database

Figure 2: Tariff rates of OECD* and non-OECD countries 1985 - 2003



^{*}OECD consists of 30 full members. Of these, 27 are high-income countries as classified by the World Bank in 2007.

Figure 3: Imports of goods & services as % of world GDP



Source: Organisation for Economic Co-operation and Development (OECD) database

Questions

(a)	(i)	With reference to Figure 2 and Figure 3, state the relationship between tariffs and imports.	[1]
	(ii)	Explain the law of comparative advantage.	[2]
	(iii)	Explain how the law of comparative advantage can explain the relationship identified in (ai).	[3]
(b)	(i)	Define inflation.	[1]
	(ii)	Describe the trend of inflation for the period 1991 to 2008.	[1]
	(iii)	Explain the costs and benefits brought about by globalisation.	[6]
	(;)	Evening how algorithm has shanged the inflationany	[6]
(c)	(i)	Examine how globalisation has changed the inflationary process.	[6]
	(ii)	"Globalisation brings about a change in the kind of policies a government needs to implement in order to achieve the	
		macroeconomic goals." Discuss.	[10]

Section B

Answer one question from this section.

Question 3

Integrated Resorts are a significant proposal to boost our tourism industry. The more attractive we are as a tourism destination, the easier it is for us to develop our convention and exhibition industry, and grow as aviation hub.

PM Lee Hsien Loong at Round-Up of Parliamentary Debate, 21

April 2005

a) Explain how the completed Integrated Resorts might affect the market for luxurious hotel accommodation. [10]

b) Discuss how the completed IRs will affect unemployment and economic growth for Singapore. [15]

Question 4

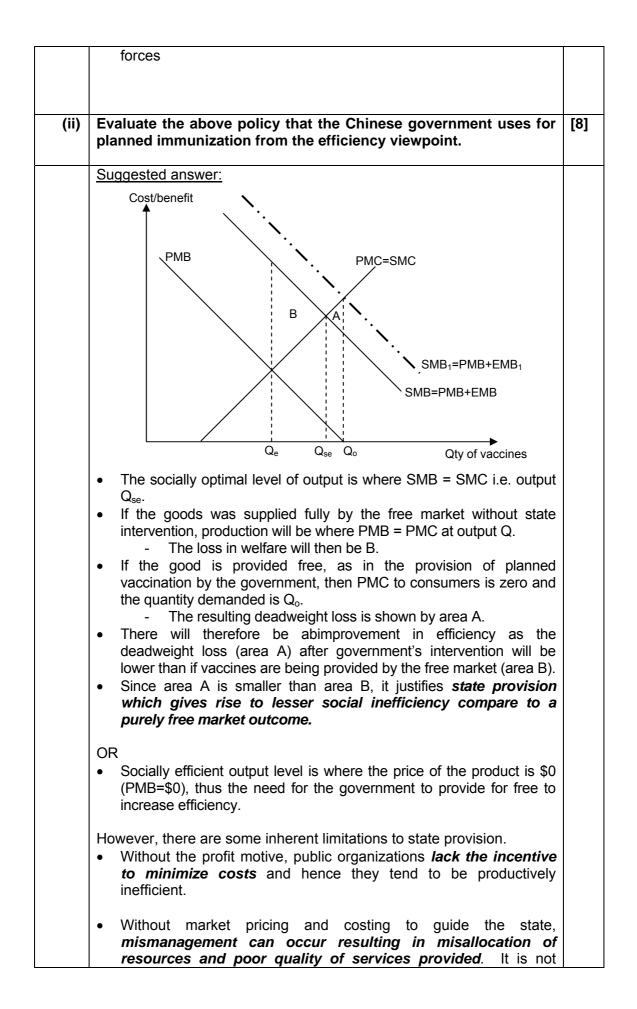
"Taking into account both growth and inflation prospects, MAS shifted to a policy of a slightly steeper rate of appreciation of the Singapore dollar nominal effective exchange rate (S\$NEER) at the October 2007 policy review.... In our assessment, this monetary policy stance is appropriate to moderate inflation."

- a) Explain why price stability is one of the aims of the Monetary Authority of Singapore? [10]
- b) To what extent is a strong Singapore dollar beneficial to the economy? [15]

Mark Scheme

Case Study 1 :

(a) (i)	State the trend of global pharmaceutical sales from 2000 – 2006.	[1]
	Suggested answer: Increasing trend (1m)	
(ii)	From Extract 1, use demand and supply analysis to account for the trend.	[4]
	Suggested answer: ↑ Demand: increase in population around the world or more people falling sick (1m) ↓ Supply: withdrawal of new drugs from the market due to safety concerns (1m)	
	To ensure increase in sales, the increase in demand must be larger than the fall in supply. (1m)	
	Diagram to illustrate answer (1m)	
(b)	Explain the evidences from data which suggest that pharmaceutical companies in US enjoy market power.	[3]
	 " the US pharmaceutical industry is dominated by a few large firms" High BTEs that include R&D ('top US pharmaceutical companies have collectively invested around 18% of sales on R&D over the past 7 years') or patents ("trademarked products") Persuasive advertising to make their product unique ("exaggerated in their claims for the therapeutic value of certain drugs 	
(c) (i)	Explain two sources of market failure that could account for the Chinese government's provision of vaccination.	[4]
	 <u>Suggested answer:</u> Imperfect information – consumers are not provided with sufficient information as to which vaccination is good or necessary for their children – under-consumption of good Market dominance – consumers will be subjected to higher prices and lower output should the market be dominated by firms in the private sector – leading to inefficient allocation of resources to the production of the vaccination 	
	 Either ✓ Positive externality – 3rd party benefits that do not accrue to the consumer or producer themselves – under-consumption of good Or ✓ Merit good – a good that is deemed socially desirable by the 	
	government and would usually be under-consumed if left to market	



	 market ra labor will To fund ti resulting Furtherm problem 	 on for doctors in state run institutions to be paid below ates and to be overworked. The lack of such qualified then lead to chronic shortages and poor quality. he program, the <i>taxes of the people may be increased</i>, in larger deadweight losses to the economy. ore, this policy would increase the income inequality in the country as even the rich, who can afford the ons, would also enjoy the product for free. Ability to show the difference in efficiency due to the provision of vaccinations and to identify the limitations involved Ability to explain the intervention method of providing the vaccination for free using SMB-SMC analysis 	
(d)		different situations in US & China, assess if m is the best policy for China's pharmaceutical	[8]
	 Infant ind new to Cl Strategic epidemic Advantages of Gain com would alw Allow for would inv Comparison protectionism Market for rake in m Efficiency successful 	protectionism in China ustry argument – the pharmaceutical industry is relatively nina reasons – to prevent public crisis in times of influenza of protectionism for China petitiveness to compete in the world market – otherwise, ways be an importer of vaccines and drugs consolidation of market power to invest in R&D which olve large amounts of money for innovation to occur the US pharmaceutical industry (= disadvantages of	
	gain competi advantage of However, in t	A may be a good policy to use in the SR for the industry to tiveness – but must ensure that the industry does not take the protectionistic measures and become complacent. the LR, may be better to remove protectionistic measures more R&D, efficiency & improvement in the industry. Able to explain the arguments for and against protectionism , having made comparisons between the 2 countries and with reference to economic concepts Able to identify & list some arguments for and against protectionism for China's pharmaceutical industry	

E2 (3-4m)	makes a stand whether protectionism is the BEST policy after careful consideration making clear the effects in SR & LR
E1 (1-2m)	make comparative comment but the comparison of 2 countries' situations will be superficial

Case Study 2

ai) Inverse relationship

ii) A country is said to have comparative advantage in the production of a good when she can produce the good at a lower opportunity cost than another country. [1]

The Law of Comparative Advantage states that trade can benefit all countries if they specialise in the goods in which they have a comparative advantage. [1]

iii) Explain how law of comparative advantage can explain the relationship identified in (ai).

[3]

One of the assumptions of the Law of CA is that there are no tariffs. [1] With high levels of tariff in 1985, specialization and trade based on CA was not possible as any difference in opportunity cost was offset by the tariffs. [1]

Hence, when the tariffs were lowered, more countries can start specializing and trading based on their CA.

[1]

bi) A sustained increase in price level [1] no marks if student did not state 'sustained'.

ii) Falling/decreasing

[1]

no marks if students describes the increase and fall of inflation.

iii) Explain the cost and benefit brought about by globalisation. [6]

The cost and benefit brought about by globalisation.
Lower cost with increased labour, greater specialisation and
increased competition. – lower prices
Growth for developing countries and greater employment.
Increased profits for firms as they are able to lower cost and there's
larger global market with increased integration of trading system.
Higher prices of commodities leading to higher inflation.
Relocation of activities – unemployment for countries which lost CA

L2	Ability to explain clearly the cost and benefit
4-6	
L1	Demonstrates ability to identify cost and benefit
1-3	

ci) Examine how globalisation has changed the inflationary process [6] Evidence from extract:

In the past, when economy is near full employment, any increase in demand will lead to inflationary pressure.

With increased competition from labour-abundant economies

Firms are less able to raise prices, workers in industrialised economies have less power to ask for higher wages.

Freer movement of labour

workers in industrialised economies have less power to ask for higher wages

Increased trade and specialisation

Economies are more open

Instead, economies are more prone to fluctuations in world prices.

Explanation

With a closed economy, inflation is caused by changes in AD and AS. A rise in AD or fall in AS leads to shortages and hence higher prices as producers compete for FOPs by raising wages, rental.

But with the globalised economy there is freer flow of international FOPs, especially labour. Producers could respond to a higher AD with employment of foreign labour. Hence income of FOPs and hence price level may not rise as much as before.

L2	Ability to explain the change in the inflationary process
4-6	
L1	Ability to explain inflationary process
1-3	

cii) "Globalisation brings about a change in the kind of policies a government needs to implement in order to achieve the macroeconomic goals." Discuss. [10]

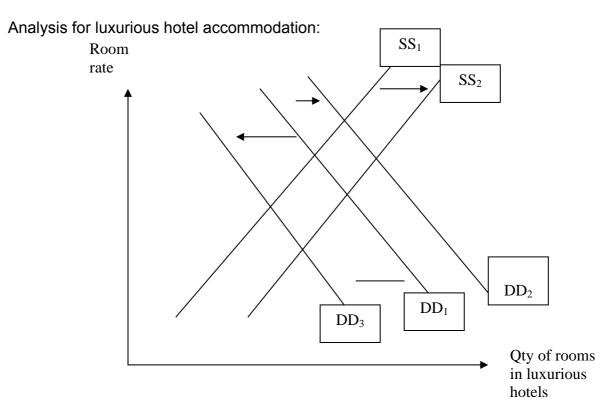
Previously (before full effects of globalization), in order to deal with inflation, governments will employ contractionary MP. However, with globalization, inflation tends to be import price push hence, MP is of limited effectiveness. Exchange rate policy will be more effective.

With regards to unemployment problems, expansionary FP is normally used to boost demand and hence employment. Globalisation which resulted in freer movement of labour meant that Firms can now choose to employ foreign workers instead of the domestic workers. If the government adopts an expansionary FP, AD may increase but unemployment may not.

Hence, focus should be on the supply-side policies.

L2	Explanation of policies in the context of globalisation
4-6	
L1	Explanation of various policies in a general manner
1-3	
E	Explains the need for change in policies ie. supply side policies.
3-4	
E	Identifies the need for changes in policies without substantiating stand.
1-2	

Q3 3a) Explain how the completed Integrated Resorts might affect the market for luxurious hotel accommodation. [10]



I) SS for luxurious accommodation increases because IRs have been built. (Rightward shift)

II) Demand for luxurious hotel accommodation: Demand factors, changes in DD resulting from:

1. Preference for location of luxurious accommodation (2 possible dd shifts)

Analysis is based on locations of luxurious hotels (near vs further away from Irs) and use appropriate diagrams for analysis. (DD-SS analysis: demand for luxurious hotels further away from Irs shifts left, those at Irs shift right)

2. Spending power of tourists (income level) (2 possible dd shifts) Tourists with higher spending power, or businessmen on expense accounts will increase demand for luxurious accommodation after the completion of Irs. (DD shifts right.

Tourists on a budget will opt for entertainment and casino facilities without living inexpensive accommodation. (DD shft left)

Alternative:

Depending on global economy and the business cycle: General at upswing would expect increase in dd for luxurious accommodation and vice versa.

3. Substitute for luxurious accommodation eg service apartment, budget hotels or homestay with local people such as relatives and friends (dd decrease)

Students are expected to use DD-SS theory for their analysis. Diagrams are required to show the extent of change for DD curve.

(For this batch of students who are not required to know and explain elasticity of demand concepts, this section would require students to compare the extent of changes in demand and supply for luxurious hotels. Task requirement:

Students are expected to comment on changes to room rate (price for luxurious accommodation) and equilibrium gty for the above scenarios.

L1 1-3	For an answer that shows knowledge of demand and supply of hotel rooms in relation to Irs. However, use of diagram in analysis is inappropriate or no diagram has been included.
Lower L2 4-5	For an answer that tries to justify how dd and ss of luxurious accommodation changes with the entry of Irs. If able to identify SS shift and only one demand factor, cap at 4m Explain correctly the rightward shift for SS and how change for demand will depend on a series of other factors.
Higher L2 6-7	Analysis include complementary and substitute relationship for luxurious accommodation in the context of Irs.
L3 8-10	Comprehensive analysis that justify the extent of the shift for demand and the resulting Pe (room rate) and Qe for luxurious accommodation.

3b) Discuss how the completed IRs might affect unemployment and
economic growth for Singapore.[15]

It is expected for the IRs to have positive effects on the Singapore economy in the following ways:

Variables	Expected outcomes	Links
Unemployment	IRs will increase employment opportunities in service sector. New types of jobs related to	To what extent will unemployed S'poreans be willing to work in the
	casino will be created. To the extent that those unN (due	service sector which generally requires longer hours.

Econ GrowthIncrease in I and FDI due to spending on building convention centres and aviation hub as a result of completed Irs. Briefly state the Multiplier effect. Use AD-AS approachNI increase due to multiplier effect from increases in AD. Evaluation of small "k" value for Singapore.Impact on S'pore potential growth as this will lead to developing a new industry in casino business.NI increase due to multiplier effect from increases in AD. Evaluation of small "k" value for Singapore.		to structural unN) can adapt or be trained, structural unN will fall. May solve dd-deficient unN to some extent when more tourists and businessmen, etc attend conventions and stay on for holidays because C will increase. Hence will help to decrease demand-deficient unN if there are any. Possible increase in I when businessmen seize opportunities and invest in food, entertainment related industries. Hence employment opportunities increase.	
	Econ Growth	spending on building convention centres and aviation hub as a result of completed Irs. Briefly state the Multiplier effect. Use AD-AS approach Impact on S'pore potential growth as this will lead to developing a	multiplier effect from increases in AD. Evaluation of small "k"

Possible evaluation:

Will the service sector becomes the main growth driver for Singapore? How will this affect future growth potential when compared to having manufacturing as the main growth-driver.

L1 (1-3)	For an answer that treats problems of unN and econ growth in Singapore without relating to the completed IRs.
L2 (4-5)	For an answer that attempt to show how with the completed IRs, injection in the form of investment in service industry, tourist industry, aviation hub etc will affect NI and unN into the economy.
	For an answer based on unN OR econ growth aspect only, to cap at 4 m.

L2	For an answer that attempt to analyse how the completed Irs will affect unN in the
(6-8)	Singapore economy by distinguishing the different types of unN and
	using AD-AS approach explain how the completed IRs will affect EG through increase
	in AD via more investment opportunities in the service industry and the aviation hub,
	etc
	However the analysis is flawed due to poor grasp of theory OR analysis is incomplete.
L3	Comprehensive explanations and analysis of how the completed IRs will have an
(9-11)	impact on Aggregate Demand management and Aggregate Supply management as it
	also to increase in potential growth for Singapore since IRs gives rise to casino and
	new entertainment industry for the future.

E1 (1-2)	For evaluative comments not supported by analysis.
E2	For and evaluative assessment based on economic analysis or empirical evidence.
(3-4)	Eg To solve structural unN will also require the support of SSP.

"Taking into account both growth and inflation prospects, MAS shifted to a policy of a slightly steeper rate of appreciation of the Singapore dollar nominal effective exchange rate (S\$NEER) at the October 2007 policy review.... In our assessment, this monetary policy stance is appropriate to moderate inflation."

a) Explain why price stability is one of the aims of the Monetary Authority of Singapore? [10]
b) To what extent is a strong Singapore dollar beneficial to the economy? [15]

4a)

Explain why price stability is one of the aims of the Monetary Authority of Singapore? [10]

Benefits of price stability

- If inflation is out of control there would be severe disruption to all forms of economic activity.
- Market activities would grind to a halt and people may have to revert to bartering to sustain consumption.
- High inflation would ultimately have a negative impact on living standards and general well-being of the people.
- Low inflation, however, serves as an incentive for producers and suppliers to increase production and hence leading to sustainable growth.
- High inflation could cause major changes in demand for exports and imports and pose serious problems for the balance of payments.

Unanticipated changes in price would also lead to internal redistribution of income between lenders and borrowers, creditors and debtors, fixed income vs variable income etc.

Basically, price stability makes it easier for us to achieve all the other 3 macroeconomic objectives.

	Knowledge, Application, Understanding and Analysis		
L3	Thorough analysis how price stability leads to achievement of other 7-10		
	macroeconomic objectives.		
L2	Apply understanding of macroeconomic objectives to price stability	4-6	
L1	Shows some knowledge of benefits of price stability	1-3	

4b)

To what extent is a strong Singapore dollar beneficial to the economy? [15]

Q4.

Need to assess and evaluate benefits based on the 4 macroeconomic objectives.

Impact	Problems	Evaluation (To what extent)
Prices of SG exports rise	 Damage export competitiveness A higher S\$ generally makes our exports less attractive to foreign consumers. If PED_X > 1, export earnings will fall → Trade deficit. 	 However, If dd is price inelastic for SG exports it would actually improve our export earnings and hence also trade balance. The size of PED in turn depends on crucially on whether there are substitutes for our exports. This in turn is influenced by: rival product available in the global market and their attractiveness relative to our key exports – electronic goods (e.g. computer peripherals); pharmaceuticals and financial services and tourism.
Prices of foreign imports fall	 A strong currency encourages consumption of imports – goods and services. E.g. More SGs flocking to overseas to shop, eat etc causing local retailers to suffer drop in sales. M = leakage out of the circular flow of income. Could cause the SG economy to slowdown → 	 Likely to ease inflationary pressures given that most of our consumer goods as well as producer goods are imported (refer to our M/GDP ratio). In the context of SG, a strong currency also helps to keep cost of merchandise exports low given the strong imported input content → boost export competitiveness.

Firstly, a strong S\$ means price of exports increasing and prices of imports decreasing.

	Job	losses,	
	unemploym	nent etc.	
Conclusion:			
In the context of Sin our favour. Why?	gapore econom	y, an appreciatio	n of our currency works generally in
 Very open e 	conomy - heavi	ily dependent on	imports to sustain our consumption
and product	ion i.e. econom	ic activity. A stro	ong currency acts as a strong buffer
against potential imported cost-push inflation.			
Our exports	generally have	a very high impo	rt content (e.g. re-exports such as oil
refining). A s	strong currency	helps our export	ers to keep costs down. In any case,
the official policy is to encourage our exports to sharpen their competitiveness via			
improvemen	t in productivity	; innovation; mai	keting etc. instead of waiting for the
Given all the above	advantages, the	• •	Sing\$. manage the Sing\$ to allow for its a cost control tool rather than to

	Knowledge, Application, Understanding and Analysis		
L3	Thorough analysis of strong Singapore dollar on all the 4 macroeconomic objectives using the AD/AS framework	9-11	
L2	Application of how a strong dollar affects macroeconomic goals but no clear economic framework	5-8	
L1	Shows some knowledge of how a strong dollar would affect Singapore.	1-4	

	Allow up to 4 marks for Evaluation		
E2	For an evaluative assessment based on economic analysis.	3-4	
E1	For an unexplained assessment, or one that is not supported by analysis.	1-2	