Name: Index Number: Class:



Economics 8819/1

(Higher 1)

Section A Case Study Section B Essay 18 September 2017 3 hours

Additional Materials: Writing Papers

## PLEASE READ THE FOLLOWING INSTRUCTIONS FIRST

Write your name and class on all the work you hand in.

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

You may use a soft pencil for any diagrams, graphs or rough working.

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

Please start on a fresh sheet of paper for a new question.

#### Section A

Answer all questions.

#### **Section B**

Answer one question.

At the end of the examination, fasten your work securely into three separate bundles, one for each question.

The number of marks is given in brackets [] at the end of each question or part question. For Section B, tick the question number you have attempted.

Section B		
Q3	Q4	

This document consists of **7** printed pages including this cover page.

[Turn over

#### **Section A**

Answer **all** questions in this section.

## Question 1 Investing in the health of the economy

Table 1: Health care data for selected countries, 2012

Country	GDP (US\$ billion)	Total health spending as a % of GDP	Total health spending per capita (US\$)	Government spending on health as a % of total health spending
China	8,561	5.4	322	56.0
India	1,828	3.8	58	30.5
Malaysia	314	4.0	418	55.2
Singapore	289	4.2	2287	35.9
Spain	1,336	9.3	2626	71.7
US	16,155	17.0	8845	47.0

Source: WHO World Health Statistics, 2015

#### Extract 1: Growing importance of health in the economy

It is well-understood that as the economy of a country improves, so will the health of its citizens. What may be less obvious is that the opposite is also true – improving the health of a country's citizens can directly result in economic growth. The World Bank reports that 50% of the economic growth differentials between developing and developed nations are attributed to poor health and low life expectancy. The healthier the citizens of a country, the more effective the workforce; the better the health of their children. Vaccinations and preventative strategies for childhood diseases are of key importance.

Health presents a challenge for all nations; in a study by the Pew Research Centre, a median of 85% of respondents believe it is a problem in their country. Health care decisions are complex to individuals. Unable to predict their medical needs, individuals might not see the need for an annual health check even if it were free. They often choose to consume too little of health care early in life, and later in life they might wish they had consumed more.

To improve health in a nation, effective public health systems are essential for providing health care services for the citizens, and for instituting measures that promote wellness and prevent disease. In working to combat diseases such as lung cancer and heart disease, there's a clear need for educational campaigns and other mechanisms to fight the causes, beyond building a few more hospitals.

Source: Outlook on the Global Agenda, World Economic Forum, 2015

#### **Extract 2: Common goals, competing priorities**

Across the globe, governments are engaged in a persistent tug-of-war between competing priorities: meeting the increasing demand for health care services and reducing the rising cost of those services. Global health spending is expected to increase from \$7.2 trillion in 2013 to \$9.3 trillion by 2018. This increase will be driven by the health needs of aging and growing populations, the rising prevalence of chronic diseases, emerging-market expansion, infrastructure improvements, and treatment and technology advances.

Some countries are facing a formidable challenge to manage the rapidly increasing cost of health care. Western Europe markets, with strengthening but uneven economic recovery, face continued need to reduce debt and fiscal deficits and are expected to constrain public health care spending. Budgets are tightest in some of those countries most affected by the euro zone crisis - Greece, Portugal, and Spain. In contrast, the rollout of public health care programmes combined with growing consumer wealth are anticipated to boost health care spending in Asia. The strongest growth, at 15.2 percent a year, will be in India, with China following at 12.5 percent a year.

Source: Global Health Care Outlook, Deloitte, 2015

#### **Extract 3: Medical tourism in India**

India is targeting the burgeoning medical tourism industry, in which overseas patients travel to take advantage of competitive health care costs. The Maldives, Sri Lanka, the United Arab Emirates and other Arabian Gulf countries are among India's main target markets for medical tourists. Thousands flocked to see the opening of the high-end, 670-bed hospital alongside the picturesque waters and lush greenery in Kochi, on the south-west coast of India. There are plans to increase the number of beds and build a hotel in the next phase as the company aims for the 40-acre project, called Aster Medcity, to become a "full-fledged medical township".

India's rise as a destination for foreigners seeking medical treatment is a major business opportunity. The country hopes to divert patients from Thailand, which is a popular option for those seeking medical treatment abroad. It also hopes that Aster Medcity would be on par with the best hospitals in Singapore - a popular destination for medical travel. The target is for India to be the global hot spot for medical value travel in five years' time, not just because of the price advantage, but because of the sheer quality of care. If India can create excellent infrastructure and good services, it can compete with the best.

The health care sector is the second largest recipient of foreign investment inflows in India and it has significant growth potential. The regulations for foreign investment into India's health care industry are relatively liberal. Growth in India's health care industry and attracting more patients from abroad could have a hugely positive impact on India's economy. For 12 lakh rupees (1.2 million rupees) invested in health care, it generates 75 jobs. It creates not only direct employment but indirect employment too.

Meanwhile, India continues to struggle with critical issues and gaps in its health care system. Hard infrastructure and health care professionals are both in short supply, and there are significant variations in the quality of health care delivery across regions. Investments in primary care and public health have long been inadequate. The burden on the health system is only set to grow over the coming years as heart disease, diabetes and cancer cases rise rapidly and the country's population ages.

Source: The National, 9 May 2015

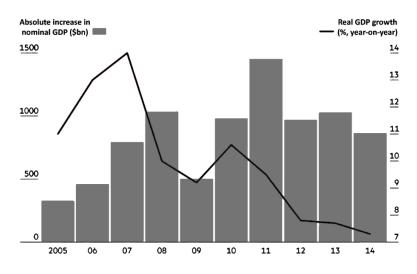
#### **Questions**

- (a) Using Table 1, identify the country which had the largest government health [2] spending in 2012. Justify your answer.
- (b) With reference to Extract 1,
  - (i) it is mentioned that 'as the economy of a country improves, so will the health of its citizens' and 'improving the health of a nation's citizens can directly result in economic growth'.
    - Explain the two-way relationship between 'economic growth of a country' [4] and 'health of its citizens' as stated above.
  - (ii) explain how, with the aid of a diagram, the market for health care fails [4] when 'health care decisions are complex to individuals'.
  - (iii) discuss whether 'providing health care services' or 'educational [8] campaigns' is more effective in ensuring a more efficient allocation of resources in the market for health care.
- (c) With reference to Extract 2 and using the concept of opportunity cost, explain the effects on consumers and the government if public healthcare spending were to increase in Western Europe.
- (d) In the light of the issues raised in Extracts 2 and 3, discuss the likely impact of the rise of medical tourism in India on its employment and balance of payments.

[Total: 30]

#### Question 2 Rebalancing of the Chinese economy

Figure 1: Absolute increase in China's nominal GDP and real GDP growth



Source: World Bank

## Extract 4: China's economic growth

China has cut its growth target for 2015 to 7%, which would be the slowest expansion in more than two decades. In the long run, growth is a function of changes in labour, capital and productivity. But they are all slowing now. China's working-age population peaked in 2012. Investment also looks to have topped out. Finally, China's technological gap with rich countries is narrower than in the past, implying that productivity growth will be lower too.

Whereas previous leaders propped up growth whenever it slowed, Xi Jinping, China's president since 2013, has instead spread the gospel of the "new normal", by which he means less emphasis on growth and faster structural reform. The central bank has been hesitant to ease monetary policy. Changes to fiscal rules have made it harder for local governments to spend money.

Source: The Economist, 11 March 2015

## Extract 5: The rural-urban divide in China

China's economic development has been driven by the coastal east, while the rural west is lagging behind. This difference in development within China sparked rural-urban migration, where rural-urban migrants seek jobs and the prospect of better lives in urban cities. However, it is not all rosy.

The average take-home pay of migrant workers, who are among China's lowest paid, is often less than half the overall average wage in China's major cities. One veteran employee in Chongqing explained: "The average pay for manual labourers at the enterprise is between 2,000 to 3,000 yuan per month while professionals usually got around 12,000 yuan a month."

Furthermore, not all rural-urban migrants find work. Without economic security and amid poor living conditions, crime is inevitable. These idle, unemployed people contribute to high crime rates in the urban cities. The Chinese government has to provide law enforcement to ensure public safety, since this service will not be rendered by the private sector.

Source: Adapted from China Labour Bulletin, 20 July 2016

#### Extract 6: China is buying its way into the U.S. economy

Chinese investors are increasingly snatching up U.S.-based firms and assets. China has shifted its focus onto industries with higher rates of return, such as entertainment, real estate, insurance, and technology - industries where the U.S. is the dominant market.

U.S. investments and holdings tied to the Chinese - including Starwood Hotels, California-based tech firm Ingram Micro and Smithfield Foods - suggest that Chinese firms are attempting to buy up international assets in a less volatile economy, and better protect itself from an unexpected domestic crisis and the conservative consumption patterns of Chinese consumers. The shift to focus on outward foreign investment will do much good for China's balance of payments and long run development.

On the other hand, it's important not to overlook the economic benefits foreign investment brings to the U.S. Although there has been evidence in recent years of American job losses related to the rise of China's industrial sector, Chinese foreign direct investment offers an interesting avenue to bring jobs back to the U.S.

The rural Alabama region recently became the site of <u>Golden Dragon Precise Copper Tube Group's</u> first U.S. plant in a move that was expected to bring hundreds of jobs to Americans while cutting down on steep transportation costs Golden Dragon would have faced if it tried to ship Chinese-made products into the U.S. marketplace.

Source: Adapted from US News, 17 May 2016 and Forbes, 10 December 2015

## Extract 7: China's new growth model

China now embraces comprehensively deepened reforms to achieve high-quality growth. Key focus areas include increasing productivity and reducing the rate of environmental deterioration.

- 1. China is encouraging markets to boost innovation and produce high value added goods through reduction in administrative approvals.
- 2. China is planning to develop the "Internet Plus" plan in March, to upgrade the manufacturing powerhouse by riding the tide of internet-led innovation.
- 3. China is investing \$90 billion in low-carbon energy and planning to install 100 gigawatts of solar power almost half the current global capacity and 200 gigawatts of wind power by year 2020.
- 4. As both the world's largest auto market and the largest automaker, China is attempting to leap ahead of other competitors in the field of electric cars.

The tools Chinese policymakers can use to ensure high-quality growth include sizable accumulated fiscal surpluses and foreign reserves. Yet more important may be China's structural reforms. Such reforms will take time to gain traction, but they are crucial to the future of the Chinese economy.

Source: Adapted from The Telegraph, 25 April 2015

#### **Questions**

- (a) (i) With reference to Figure 1, describe the trend of China's real GDP between [2] 2005 and 2014.
  - (ii) Using Extract 4, explain two reasons for the above trend. [4]
- (b) With the use of diagrams and reference to Extract 5, explain the effect of ruralurban migration on the wage differential between manual labourers and professionals in the urban cities.
- (c) Explain why it is necessary for the Chinese government to provide law [4] enforcement as suggested in Extract 5.
- (d) Using Extract 6, discuss whether China or U.S. has more to gain from the [8] increased inflow of foreign direct investment from China into the U.S..
- (e) Discuss how any two of the measures identified in Extract 7 can help to achieve [8] high-quality growth in China.

[Total: 30]

#### Section B

Answer one question from this section.

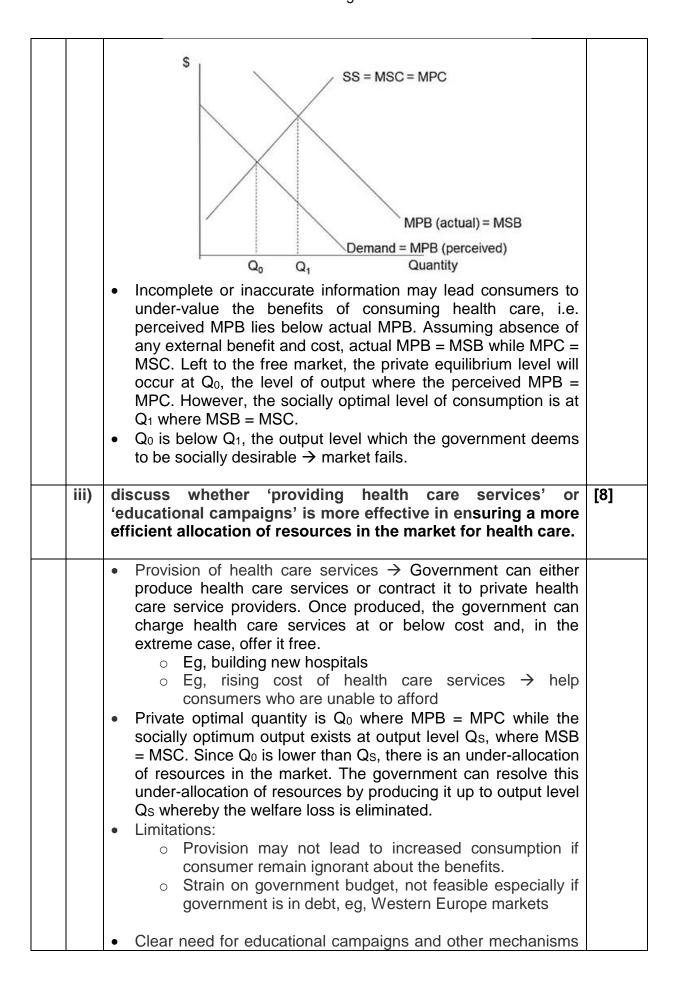
- 3 (a) Explain why the price elasticity of supply for manufactured goods such as computers, clothing and books is generally higher than the price elasticity of supply for agricultural goods such as grains, corn and cotton. [10]
  - (b) Discuss the view that imposing indirect taxes on goods with price inelastic demand causes more harm than good to the society. [15]
- **4 (a)** Explain the possible conflicts in the achievement of macroeconomic aims when using demand-management policies. [10]
  - **(b)** In the light of these macroeconomic conflicts, discuss whether governments should rely solely on supply-side policies to achieve its macroeconomic aims.[15]

\*\*\*\*\*\*

**End of Paper** 

## 2017 H1 Prelim CSQ 1: Investing in the Health of the Economy

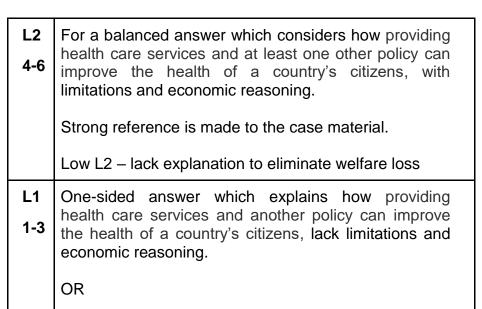
a)	Using Table 1, identify the country which had the largest government health spending in 2012. Justify your answer.		[2]
		US had the largest government health spending in 2012.  argest GDP + largest health spending as a % of GDP	
b)	With	reference to Extract 1,	
	i)	it is mentioned that 'as the economy of a country improves, so will the health of its citizens' improves and 'improving the health of a nation's citizens can directly result in economic growth'.	[4]
		Explain the two-way relationship between 'economic growth of a country' and health of its citizen' as stated above.	
		'as the economy of a country improves, so will the health of its citizens'	
		<ul> <li>Economy improves → increase in national income → government tax revenue increases (assume progressive tax structure) → government can channel more revenue to health spending → improve health of citizens</li> </ul>	
		<ul> <li>'improving the health of a nation's citizens can directly result in economic growth'</li> <li>• Improve quality and quantity of human resources → increase productivity</li> <li>• Outward shift of PPC model/ rightward shift of AS in LR.</li> </ul>	
	ii)	explain how, with the aid of a diagram, the market for health care fails when 'health care decisions are complex to individuals'.	[4]
		<ul> <li>Consumers have incomplete information of health care</li> <li>Complexity → Information failure, additional information is costly to acquire, substantial degree of ignorance, unaware of benefits</li> <li>Uncertainty → unable to predict when and what kind of illness may strike, how severe it will be and hence the exact cost of</li> </ul>	
		<ul> <li>treatment, rather spend on satisfying immediate needs</li> <li>Free consumer choice is inappropriate → left to themselves, many consumers are unwilling to purchase "appropriate" quantities, under-consume health care.</li> </ul>	



- → a reason why people under-consume health care services is that they under-value the private benefits of consumption.
- Consumer ignorance can be rectified by the provision of information by the government. A solution to address the under-consumption problem is government campaigns to provide information to consumers on the benefits of consuming health care services in the expectation that the consumers will adjust the perceived MPB upwards towards actual MPB.
- Limitations
  - Effectiveness of public education messages in persuading individuals to change their habits is highly uncertain – receptivity, gestation period

## Possible evaluative comments:

- Provision of health care services is effective if the root cause is consumers' inability to afford, eg, developing countries
- Effectiveness of provision of health care services can be improved if combined with educational campaigns to resolve root cause of consumer ignorance, eg, awareness of wellness, prevention.
- Suppose the good is fully provided for free by the government, MPC becomes zero. Private optimum level of consumption increases from Q<sub>0</sub> to Q<sub>2</sub>, the output level at which MPB = MPC = 0. The new consumption level Q<sub>2</sub> is in excess of the socially optimal level Q<sub>S</sub>, it will create a greater deadweight loss. Where the welfare loss from over-consumption exceeds the original welfare loss under the free market outcome, the society is made even worse off with legislation of compulsory consumption. This is a situation known as government failure where government intervention, instead of eliminating or at least reducing the inefficiency, deepens it.



		2 sided analysis with little /nc accompanie recogning	
		2 sided answer with little/no economic reasoning.	
		[Max L1] Weak reference to case material.	
	E 1-2	A well-elaborated evaluation, with justifications and with reference to the case material.	
c)	cost, exp	ence to Extract 2, using the concept of the opportunity lain the effects on consumers and the government if althcare spending were to increase in Western Europe.	[4]
		unity cost – value of next best alternative forgone	
		est alternative forgone for Government  Ability to reduce government budget deficit to regain investor	
	(	confidence	
	0 /	est alternative forgone for Consumers (any one) Ability to retain jobs, incomes in the face of weak investor confidence.	
	o 1	f government increases taxes → reduction in households'	
		disposable incomes → ability to consume goods and services	
		f government reduces expenditure on other public services ike education → social mobility	
d)	likely imp	nt of the issues raised in Extracts 2 and 3, discuss the pact of the rise of medical tourism in India on its ent and balance of payment.	[8]
	Positive Im	pact	
		s direct employment in health care sector, also creates employment in other related industries such as tourism $\rightarrow$ model	
	increas	oyment → link to improve material SOL	
	industri	es wage/ income disparity between medical tourism, related es and other sectors of India's economy ng gap in primary care and public health → affects quality/	
	• FDI - R	y of labour depatriation of profits worsens BOP via current account, little of skills/ technology due to lack of regulation	
		f medical tourism in India beneficial for employment and e of payments	

- Regulation for FDI → transfer of skills/ technology, retention of profits
- Improve tax/ subsidy structure → tax profits from medical tourism and related industries to improve primary care, public health → improve quality/ quantity of labour
- 4-6 For a balanced answer which considers the positive and negative impact of the rise of medical tourism in India on its employment and balance of payment, with economic reasoning.

Strong reference is made to the case material.

Une-sided answer which explains considers one-sided impact of the rise of medical tourism in India on its employment and balance of payment, lack economic reasoning.

OR

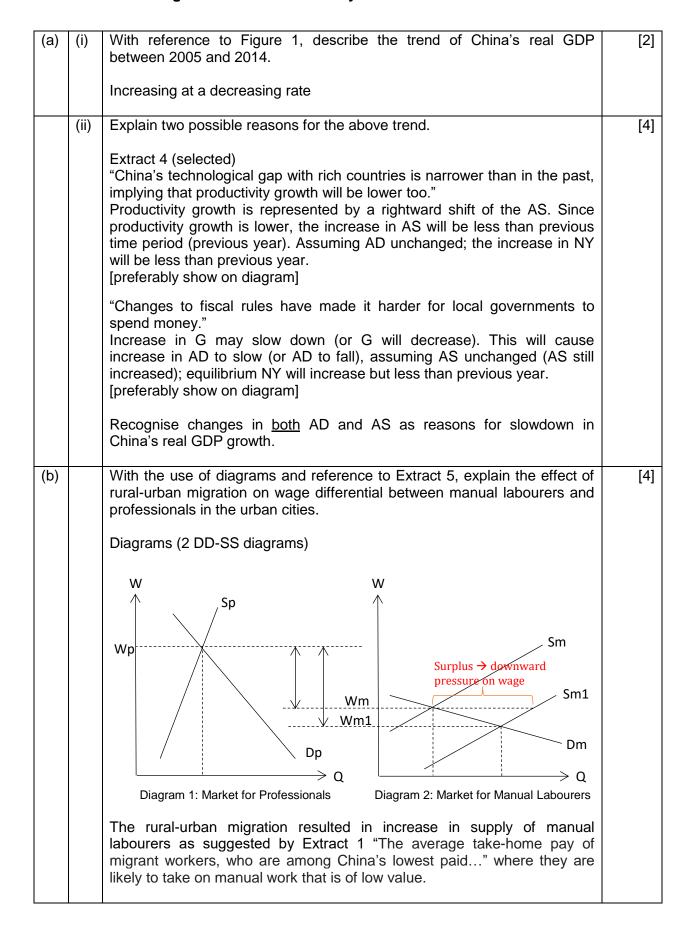
2 sided answer with little/no economic reasoning.

[Max L1] Weak reference to case material.

A well-elaborated evaluation, with justifications and with reference to the case material.

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#### CSQ 2: Rebalancing of the Chinese Economy



	Referring to the diagram 2, the rural-urban migration resulted in increase in supply of manual labourers, but the demand is low and price elastic relative to professionals due to the low value of output these manual labourers produce. (MAP required) The existing wage differential is widened as a result of the migration.  In diagram 1, the demand for professionals is high due to the high value of output these professionals can produce. The supply is also relatively low and price inelastic as not everyone can work as a professional without long periods of training and aptitude.  Extract 1: average pay for manual labourers at the enterprise was between 2,000 to 3,000 yuan per month while professionals usually got around 12,000 yuan a month  The rural-urban migration had the effect of worsening the existing wage differential between professionals and manual labourers in urban cities.	
(c)	<ul> <li>Explain why it is necessary for the Chinese government to provide law enforcement as suggested in Extract 5.</li> <li>Law enforcement is a public good that exhibits the characteristics of non-rivalry and non-excludability.</li> <li>Non rivalry: A good is non-rivalled in consumption when the consumption of the good by one does not diminish the quantity available for others to consume. When law is enforced, all citizens who live in the vicinity benefit from public safety, and such benefits will not be reduced with an additional resident. Thus the MC of providing public safety to an additional resident is negligible. Since the allocative efficient outcome is P = MC, the price to charge should be at zero. Producers are unwilling to produce something that is to be priced at zero, thus there is no expression of supply. This is as suggested in Extract 5, where the service is not rendered by the private sector.</li> <li>Non excludability: A good is non-excludable when it is impossible or prohibitively expensive to exclude non-payers from consuming the good once it is produced. When law is enforced, even if one does not pay it, he/she will still enjoy public safety. Since there is public safety without paying, this leads to the problem of free-riding, where no one is willing to reveal their willingness and ability to pay for law enforcement, instead they wait for someone else to pay and benefit for free. This results in no expression of demand.</li> <li>No expression of demand and supply means price mechanism cannot function to allocate resources to produce law enforcement. This leads to complete market failure. The government must intervene in enforcing law</li> </ul>	[4]
	to bring about a more efficient allocation of resources and provide a socially beneficial service to society.	
(d)	Using Extract 6, discuss whether China or U.S. has more to gain from the increased inflow of foreign direct investment from China into U.S.	[8]
	China gains:	

- Improvement in current account of BOP as returns from outward FDI flow into China in the future [Extract 6]
- Development for China (potential growth) as China acquires knowledge and technology in industries that it is currently not proficient in as compared to US (explain using AD-AS model on the rightward shift of AS) [Extract 6]
- As a form of divestment as China is not gaining much (X growth) from the commodities it is currently producing in large quantities [Extract 6]
- Attract future investment as China grows to acquire more technology and ability to produce high value goods (increase in AD and improve BOP)
- Able to produce higher value goods for X in future (increase in AD and improve BOP)

#### US gains:

- Increase in investment as funds from China move in to expand (assume) the industries (increase in AD from increase in I → k effect and NY increases) + creation of jobs [Extract 6]
- Less imports from China as production is now in US instead of being made in China → improvement in current account of BOP
- Inward FDI → improvement in financial account of BOP

#### However,

- China suffers in the short run from less local investment as Chinese firms leave the country and divest their funds elsewhere.
- There will be lesser jobs created as a result too.
- There is uncertainty as to whether investing large amounts in US will yield the future potential growth.
- BOP will worsen (explain)

#### Compared to

- US losing out in the LR as returns to investment flow out of the country, worsening current account of BOP
- Hollowing out effect if China exits US once the economy does not provide growth opportunities → drastic effect on BOP and EG

#### Conclusion

- LR vs. SR considerations
- Other components of AD to grow so as to balance out the effects of investment
- Prioritisation of economic goals
- Decision on China or US gains more

L1	One-sided answer that considers only the benefits to China
(1-3m)	or US
	Lack of economic analysis on the benefits to each country;
	mere statements without explanation
	No clear links to macroeconomic objectives
L2	Analysis of benefits to both countries; clear links to at least
(4-6m)	two macroeconomic objectives
	Some aspects of costs to each country from the FDI from
	China to US
F	Judgment on which country gains more based on certain

		. 1
	(1-2m) considerations such as long run vs. long run gaprioritisation of government objectives.	ains,
		<u>_</u>
(e)	Discuss how two of the measures identified in Extract 7 can help ach high-quality growth in China.	hieve [8]
	High-quality growth – stable and sustained EG [Extract 7]	
	Measure 1  "China also announced plans to develop the "Internet Plus" plan in M to upgrade the manufacturing powerhouse by riding the tide of intern innovation."	
	In improving the manufacturing sector to use more internet and internet internet internet into led innovation, Chinese government will have to first spend on upgrades, thereby increasing G. This will increase AD and set off effect (Explain briefly with the use of AD-AS diagram). – actual growth The upgrades will increase productivity in the manufacturing sect workers learn to make better use of internet technology and learn number efficient methods of manufacturing, thus increasing AS. – pot growth	these the k or as ewer,
	This can set off a virtuous cycle of attracting inward FDI into Chin China now boosts improved attractiveness as a destination manufacturing. – future actual growth (stable)	
	Drawbacks: - some jobs lost as productivity increases or that there is now automation → increased structural unemployment - strain on government budget and opportunity cost incurred spending on 'Internet Plus" plan	
	Measure 2 "As both the world's largest auto market and the largest automaker, attempts to leap ahead of other competitors in the field of electric cars	
	China has decided to move into the development of electric cars, are still fairly uncommon currently. By developing the technology how and efficient production methods ahead of her competitors countries that also produce and export cars), China will be able to proelectric cars at a relatively lower cost than other competitors. The allow her to develop comparative advantage. The improvement production efficiency and development of CA has two effects of Chinese economy.	know (other oduce s will nt in
	The development of producing electric cars in large quantities will resinitial investment. This will increase I/G and hence AD, triggering effect. Assuming Chinese economy not at full employment, there will increase in real NY. – actual growth  The development could lead to increase in AS (rightward shift of A Chins gains improvement in efficiency and technology. – potential ground in addition, the development of CA will allow China to export these electric cars in future, as well as to encourage her own domestic mark consume local electric cars over imported cars. This will contribute future increase in AD via X and Cd. – future actual growth (stable)	the k be an S) as owth lectric ket to

#### Drawbacks:

- Uncertainty in gains of production techniques and technology AS may not increase
- Productivity gains in producing electric cars may not be significant in relation to the entire Chinese economy AS shifts little
- Other countries may also have developed CA in electric cars before China, reducing the gains for China from exporting these cars – AD does not increase/increase significantly

#### Conclusion

Chinese government need to have ample funds to support these measures, as stated in Extract 7.

"The tools Chinese policymakers can use to ensure quality growth include sizable accumulated fiscal surpluses and foreign reserves."

In addition, the Chinese government needs to ensure stable ER (through foreign reserves) in order to effectively boost her exports of manufactured goods (including electric cars). She needs to also manage her own inflation so that foreign firms are willing to invest in China. Otherwise, it may be a situation where China does a lot of outward investment (in Extract 6) without the ability to attract inward FDI. This will not be good for China's BOP in the long run. This will also affect both her actual and potential growth.

L1 (1-3m)	Splatter of points that has little/inaccurate explanation of measures
( )	Underdeveloped explanation of measure(s) Some conceptual errors or gaps in explanation
L2 (3-6m)	One well explained measure that includes economic analysis and drawbacks (max. 4m)  Two explained measures that has at least on consideration of drawback each
	Use of economic analysis (diagram)
E (1-2m)	Consider the conditions that are required for the measures to work
	Consider the additional actions government can take to ensure that measures will work with minimal drawbacks

## Question 3

- a) Explain why the price elasticity of supply for manufactured goods such as computers, clothing and books is generally higher than price elasticity of supply for agricultural goods such as grains, corn and cotton. [10]
- b) Discuss the view that imposing indirect taxes on goods with price inelastic demand causes more harm than good to the society.

## Part A

PES measures the degree of responsiveness of the quantity supplied for a good to a change in the price of the good itself, ceteris paribus

The more price inelastic the supply, the less responsive quantity supplied is to price changes. Consequently, prices need to increase by a larger extent to induce a large enough increase in quantity supplied before the shortage is eliminated and a new equilibrium established.

PES for manufactured goods such as computers, clothing and books is generally higher than price elasticity of supply for agricultural goods such as grains, corn and cotton, due to:

## **Availability of Stock**

• Firms with larger availability of stocks are more able to respond to price changes. Hence, supply of durable goods such as computers, clothing and books is more price elastic than the supply of perishable goods. This is because perishable goods (e.g. agricultural goods) cannot be stored for long periods of time. Given an increase in price of vegetables, producers cannot increase the quantity of vegetables supplied to the markets easily as they are unable to draw from their stocks / inventories. The larger the availability of stocks, the larger the increase in quantity supplied that firms will be able to bring into the market, accounting for the larger PES value.

## **Time Period**

- Firms can better respond to price changes by altering their quantity supplied if a longer time period was allowed.
- Eg, agricultural goods have long gestation period → producers have lesser ability to respond quickly to price changes

## **Existence of Spare Capacity**

- Firms may have the capacity to increase production when existing capacity is not fully utilised.
- Should the firms be already operating close to full capacity, it will be difficult for them to increase quantity supplied in response to a price rise. Therefore, the greater the spare capacity, the higher is the PES and the more price elastic the supply.

Knowledge, application, understanding & analysis		
L3	For a comprehensive answer which explains the concept of PES clearly, with reference to the given examples.	7-10
L2	For an undeveloped answer, which displays some understanding of the concept of PES with some reference to the given examples, though have some lapses.	5-6
L1	For an answer showing weak and incomplete understanding of the question and context; with substantial glaring conceptual errors; clumsy explanation of the question.	1-4

## Part B

Discuss the view that imposing indirect taxes on goods with price inelastic demand causes more harm than good to the society.

Explain the impact of indirect tax on goods with inelastic demand

- Fall in supply, increase in equilibrium P and fall in equilibrium Q, c.p.

Explain why it may be bad for the society if indirect tax is imposed on goods with low PED

- Bad if it is imposed on food which has price inelastic dd Necessity bad since it increases cost of living. Increase hardship as lower income HH spend a greater % of its income on food -> bad for society. Especially when there is no market failure → DWL.
- Bad if indirect tax is imposed to reduce consumption / production of good to social optimal level. Not effective if used as a measure to reduce quantity to social optimal level. Need a high tax rate to effect the change but will have consequences on the society. -> net impact is negative on society

Explain why it may be good for the society if indirect tax is imposed on goods with low PED.

- Good if it is imposed to generate revenue - If it is imposed on economic bads with price inelastic dd (cigarettes, alcohol) → increase Govt revenue which can be used to spend on transfer payment to increase social welfare -> good for society

#### Evaluation

- Whether imposing indirect taxes on goods with price inelastic demand causes more harm than good to society depends on
  - Objectives/ Ability of government
  - Nature of the good
- In the real world, there exist imperfect information. Governments do not have perfect information regarding the different price elasticity of demand across the different groups of consumers or across different types of goods.
- Imperfect information when calculating the value of price elasticity of demand thus it is at best an estimated figure.

L3 (9-11 m)	Well-developed answer that considers the costs and benefits to society of imposing indirect taxes on goods with price inelastic demand
L2	Undeveloped explanation of the costs and/ or benefits to
(6-8 m)	society of imposing indirect taxes on goods with price inelastic demand
L1	For an answer that shows descriptive knowledge of question
(1-5 m)	requirement.
E1	Mainly unexplained judgment
(1-2 m)	
E2	Judgment based on economic analysis
(3-4 m)	

#### Question 4

- (a) Explain the possible conflicts in the achievement of macroeconomic aims when using demand-management policies. [10]
- (b) In the light of these macroeconomic conflicts, discuss whether governments should rely solely on supply-side policies to achieve its macroeconomic aims. [15]

a)

#### Introduction

- Explain the 4 macroeconomic objectives
- The 4 macroeconomic objectives can be achieved by demand management policies. Use
  of demand management can sometimes lead to conflicts in achieving the macroeconomic
  objectives.

#### **Development**

Use of expansionary demand management policies such as EFP & EMP can lead to conflict between macroeconomic goals <use graph to illustrate>:

## Conflict 1: As EFP are used to achieve economic growth, it will lead to demand-pull inflation

- AD rises along upward sloping portion of AS curve (actual growth) → economy has little
  excess resources → competition for resources by producers bid up factor prices →
  translates into higher COP is then passed on to consumers through higher consumers
  prices + exports become less price competitive→ Employment goals achieved at the
  expense of higher inflation and possibly worsening BOT.
- Many fast developing countries like China with fast-rising AD and increasingly less spare
  capacity will likely face this conflict. On the other hand, contractionary fiscal and monetary
  policies can be used to reduce demand pull inflation, but this in turn conflicts with economic
  growth and employment, thus posing yet another trade off.

## Conflict 2: As EMP are used to achieve economic growth, the balance of payments may worsen.

- if interest rates are lowered to reduce costs of borrowing, households will borrow more to spend on consumer durables and firms may also invest more as expected net profitability increases. This leads to an increase in AD and real national income.
- However, the demand for imports and hence import expenditure increases too. This is because many consumer durables may be imported and firms may also import raw materials and machineries for their investments. Assuming that export revenue does not rise as quickly, the balance of trade worsens. Ceteris paribus, the current account and hence balance of payments worsens.
- Thus countries like Singapore with high MPM will be more likely to suffer from this conflict.
   This is because the increase in import expenditure is larger when national income increases.
- Vice versa, contractionary demand management policies to correct or address a balance of trade deficit can conflict with economic growth and employment.
- If a country wants to achieve economic growth, it may choose to use expansionary monetary policy to increase AD. When interest rates are lowered, the cost of borrowing is lowered. This causes households to borrow more to purchase consumer durables such as televisions and refrigerators. This causes C to increase. Firms will also find that expected profitability of investment increases as costs of borrowing falls, given that economic conditions remain the same and returns on investments do not change. Thus I increases. Since C and I are components of AD, AD will increase, resulting in an increase in real national output and hence actual economic growth.

However, in an open economy, the lower interest rates would likely result in capital outflow.
 If there is massive capital outflow as funds move to countries which offer higher interest rates, the capital and financial account will worsen. This leads to a worsening balance of payments. Hence, the desire to achieve actual growth via expansionary monetary policy can conflict with the desire to achieve a healthy balance of payments.

# Conflict 3: As expenditure switching policy of currency depreciation is used to improve current a/c in BOP, it will lead to demand-pull or imported inflation

- a conflict between achieving a healthy balance of payments and price stability.
- If a country is facing a deficit in its current account and balance of payments, it may make use of demand management policies to improve the current account. For example, an expenditure switching policy of currency depreciation would help decrease the price of exports in terms of foreign currency and increase the price of imports in terms of domestic currency. As export competitiveness increases, the demand for exports and hence export revenue increases. At the same time as imports become more expensive, consumers switch to purchasing domestic goods instead. Assuming that Marshall Lerner condition holds, when IPEDx + PEDml >1, balance of trade improves. Since X-M increases, AD increases and general price levels increase too.
- However, if the economy is import-reliant, the depreciation of the currency could lead to imported inflation as the prices of imported raw materials increase. This causes the SRAS to fall and the general price level to increase. Thus a healthy balance of payments is achieved at the expense of price stability. An example of this would be Singapore, where imported inflation is likely to happen if the currency depreciates. This explains why Singapore is reluctant to depreciate its currency even when BOT is worsening.

#### Conclusion

These potential trade-offs occur in the short run and are likely to occur depending on the choice of policy tools chosen by the govt and whether the economy is operating very close to full capacity. For example, if the economy is working with a lot of spare capacity then there is not likely to be any conflict with inflation goal since additional resources can be diverted into production without bidding up the prices of these resources.

Level	Knowledge, Application, Understanding & Analysis
L3	<ul> <li>Provides at least 3 well explained possible conflicts when using FP &amp; MP</li> </ul>
(7-10)	<ul> <li>Effective use of economic framework (AD/AS)</li> </ul>
	<ul> <li>Makes relevant &amp; essential assumptions (e.g. level of spare capacity, holding other factors of AD constant)</li> </ul>
L2	Under-developed explanation on the conflicts & link to economic framework
(5-6)	Lack of assumptions made
	[Not well explained 3 conflicts or well-explained 2 conflicts]
L1	
	An answer that merely stated or defined the key macro objectives without or
(1-4)	with little explanation on the conflicts between these objectives when implement FP & MP

b) In the light of these macroeconomic conflicts, discuss whether governments should rely solely on supply-side policies to achieve its macroeconomic aims. [15]

#### Introduction

Macroeconomic policy decision makers (the govt of the country) can implement different policies to manage the economy to achieve macroeconomic stabilization. The policies range from demand-management policies, supply-side policies, exchange rate policies, incomes and price policies, to trade policies.

Supply-side policies focus on shifting the SRAS and LRAS through the use of a multitude of policy tools.

## **Development**

## THESIS: Govt should rely on supply-side policies

- (a) When the macroeconomic problem arise on the supply side
- (i) <u>Cost-push inflation</u> in a country can arise from rising wages or expensive imported raw materials. If rising wages is the cause of <u>wage-push inflation</u> in the country, the govt will need to adopt an incomes and price policy to help keep prices and wage costs low to prevent GPL from rising. Such supply-side policies like restraints on wages (wage freeze) and price controls (maximum price legislation) can be used to keep production costs low and increase SRAS to control the inflation, and prevent the wage-price spiral from hurting the economy. The employment and income levels of the country are also increased, allowing the economy to achieve domestic stability, as seen in the diagram below.
- (ii) If the country is experiencing <u>imported cost-push inflation</u> due to imports of more expensive raw materials or inputs, the govt can adopt the supply-side policy of appreciating the currency to keep costs down.

A stronger currency following the appreciation helps to lower the price of the imported raw materials in terms of home currency. This brings down the production costs of final goods and services, keeping GPL under control. The SRAS of the economy shifts downwards, lowering GPL. Employment and income levels in the country are also raised as shown in the diagram above.

(iii) A country experiences two main types of unemployment, namely cyclical and structural. If the unemployment experienced by the country is of the structural type, then supply-side policies need to be implemented. <u>Structural unemployment</u> refers to the *mismatch* between the skills possessed by

the retrenched workers and those required by new industries. This type of unemployment results mainly from immobility of resources (eg. geographical and occupational immobility), when the structure of the economy changes or when there are permanent changes in demand and supply conditions. Retrenched workers may not be able to find immediate employment in other industries.

The govt would need to provide and fund education, retraining facilities and assistance to the structurally unemployed, so that they can obtain the skills required by the expanding industries in the economy. The aim is to improve labour mobility, to move resources and labour from depressed to expanding industries. This will shift SRAS downwards and LRAS to the right as the productive capacity of the country is raised with better educated and skilled workers. The employment and income levels in the country are also increased.

- (iv) Poor econ growth due to poor infrastructure, FDI outflow, etc need govt fiscal incentives to manage economy's AS
- (v) Loss of comparative advantage hurting econ growth need ss-side policies to identify &

promote new growth areas to raise international competitiveness of country's exports. Use tax incentives to promote R & D, expand productive capacity and shift economy's SRAS downwards and LRAS outwards, or PPC outwards to achieve low rate of employment, low rate of inflation and sustained economic growth

## ANTI-THESIS: Govt should not rely solely on supply-side policies

#### (a) Supply-side policies have limitations

Supply-side policies do not always work effectively. There are several limitations like:

- Need costly funding and hence strain on govt budget
- Time lag before effects can be seen
- Uncertainty of success of R & D efforts to raise efficiency

#### (b) When the macroeconomic problems do not arise on the supply side

- (i) The country may be experiencing <u>demand-pull inflation</u> instead where there are persistent rises in AD in the economy that are not matched by AS. In such a situation, only demand-management policies like contractionary MP (raise interest rate) or contractionary FP (lower G, raise T) to lower C, I and G and hence AD to bring GPL down. There will conflicts between the objective of low rate of inflation with objectives of low rate of unemployment and sustained economic growth. However, this is only temporary as once the demand-pull inflation is kept under control, supply-side policies can be implemented to ensure all 3 goals are achieved.
- (ii) If the country is suffering from <u>cyclical unemployment</u>, expansionary FP or MP needs to be implemented to solve the problem. AD must be raised to ensure more job opportunities are created to meet the demands of the unemployed. There will however be a conflict between low rate of unemployment with low rate of inflation. But this is again temporary as once the cyclical unemployment is tackled, supply-side policies can be implemented to ensure all 3 goals are achieved.
- (iii) There may be <u>poor economic growth due to a global crisis or recession</u> need expansionary FP or MP, trade policies like FTAs, exchange rate policy, etc to stimulate AD. The govt may need to adopt trade policies by signing FTAs with certain countries, or adopt zero appreciation (or even depreciation) to make exports more price competitive and ensure the loss of export earnings are kept under control.

Demand-management policies have their limitations too, for example, the small size of the multiplier if the mpw is high or the openness of the economy that render changes in interest rate ineffective.

#### (c) To achieve goal of sustained economic growth specifically

In the light of these macroeconomic conflicts, both dd-mgt and ss-side policies must complement each other to enable goal of <u>sustained economic growth</u> to be achieved.

Actual growth must occur via the use of dd-mgt policies that increases the components of AD, for example lowering of tax rates, raising of govt spending or cut in interest rates. The Spore govt changes the timing of govt projects during stable and normal economic situations by moving them forward to help stimulate actual growth. Potential growth must also take place via the use of ss-side policies that increase the quantity and/or quality of factors of production, for example more education and training of workers to upgrade their skills and productivity. The Spore govt embarks on restructuring and skills training to upgrade the workers' skills to raise their productivity, lower average production costs and attract FDIs to achieve potential growth.

#### Conclusion

DD-mgt policies are important when there is lack of AD to promote SR actual growth. SS-side policies are important for raising international competitiveness and promoting LR potential economic growth.

Both demand-mgt and supply-side policies are complementary rather than conflicting, and should be used together. Need for ss-side policies to support dd-mgt policies as both are inter-related. For example, govt need to implement both dd-mgt and ss-side policies to achieve sustained economic growth in LR. Other policies like trade policies also need to be used to help the economy reach macroeconomic stability. The govt has to consider the prevailing economic condition, the nature of the economy and the cause of the macroeconomic problem to determine the type of policy to implement. For example, if the country is facing severe recession, then dd-mgt policies are more appropriate. But if the economy has a small k size, then the effectiveness of dd-mgt policies may be limited, prompting the govt to rely more on ss-side policies.

Level	Knowledge, Application, Understanding & Analysis	
L3	Excellent and very well developed 2-sided discussion on whether	
(0.40)	macroeconomic policy decision makers should rely solely on supply-side	
(8-10)	policies to achieve the macro objectives.	
	Use of sound economic tools of analysis and very good examples relating to	
	some economies for comparison.	
L2	Clear but not well developed 2-sided discussion on whether macroeconomic	
(0.7)	policy decision makers should rely solely on supply-side policies to achieve	
(6-7)	the macro objectives. Explanation of alternative policy.	
	OR Well-developed one-sided explanation on how govt should or should not	
	rely solely on supply-side policies to achieve the macro objectives.	
	Some use of economic tools of analysis and little attempt at providing	
	examples for comparison.	
1.4		
L1	Weak discussion on whether macroeconomic policy decision makers should	
(1-5)	rely solely on supply-side policies to achieve the macro objectives  Mere stating of points without elaboration.	
(1-3)	Were stating or points without clasoration.	
E1	Unexplained judgment on the statement's validity	
(4.0)		
(1-2)		
E2	Judgment based on sound economic analysis on the extent of the statement's	
	validity using broad evaluation points to elaborate.	
(3-4)		