

**2015 ACJC PRELIM: H2 Case Study 1 (Healthcare in China and India)**

(a)	(i)	<b>Compare the trend of health expenditure per capita between India and China from 2009 to 2013.</b>	<b>[2]</b>
		<p><b>Similarity:</b> The health expenditure per capita in both China and India shows increasing trends from 2009 to 2013.</p> <p><b>(Any) Difference:</b> China's health expenditure per capita is consistently increasing while India's fell once in 2012.</p> <p>OR</p> <p>China's health expenditure per capita is increasing faster than India's (94% versus 33%)</p>	
	(ii)	<b>What conclusion would you draw from Tables 1 and 2 about the relationship between health expenditure and healthcare outcomes? Explain your answer.</b>	<b>[4]</b>
		<p><b>Explain relationship</b> We can conclude that there is a positive relationship between health expenditure per capita and healthcare outcomes. Higher per capita spending on health would lead to better healthcare outcomes as more spending on healthcare would mean people can get protected and treated against diseases and illnesses.</p> <p><b>Explain evidence</b> China has a larger spending on health expenditure per capita than India and better healthcare outcome in terms <b>lower mortality rate of children under 5 years old</b>. This could be due to China having higher % of children whom are immunized against measles hence they are less likely to be infected and grow up healthily.</p> <p>China has also better healthcare outcome than India in term of <b>higher life expectancy at birth</b>. A reason could be because China has better sanitation facilities than India which resulted in the Chinese being able to live more hygienically and less susceptible to diseases which resulted in</p>	
(b)		<b>Assess whether implementing measures similar to those undertaken by the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes.</b>	<b>[8]</b>

	<p><b><u>Introduction</u></b></p> <p><b>Measures adopted by the Chinese government to improve healthcare outcomes of life expectancy at birth and infant mortality rate</b></p> <ol style="list-style-type: none"> <li>1) Increase in healthcare subsidies</li> <li>2) Increase number of doctors in rural areas</li> <li>3) Use new technologies</li> </ol> <p><b><u>Development</u></b></p> <p><b>Students are to discuss whether India should implement the above measures taken by China.</b></p> <p><b>1) Increase in healthcare subsidies</b></p> <p>India should increase healthcare subsidies as health expenditure per capita in India is much lower than in China and Japan. Table 1 and 2 has shown that there is a positive relationship between health expenditure and healthcare outcome. <b>An increase in healthcare subsidies which makes healthcare services more affordable would be able to increase consumption of healthcare which improve healthcare outcome as people get treated for their medical condition.</b> A subsidy is a payment made by the government to producers in order to lower their cost of production. By subsidizing the production of healthcare, the <b>supply will increase</b> and equilibrium price lowers and equilibrium quantity increases. Alternatively, subsidies could also be given to consumers. The increase in healthcare subsidies would be the most helpful for the low income workers as healthcare may be too expensive for them as <b>majority of Indian population still lives in rural area.</b></p> <p>Increasing subsidies may impose a <b>large burden on India's government budget</b> as the demand for healthcare is likely to be price inelastic. Hence a large amount of subsidies is required to increase consumption on healthcare significantly to improve healthcare outcome.</p> <p>This may be not a serious problem as the spending on healthcare need not increase significantly. The Indian government currently spends only about 30% of the country's total healthcare spending on primary healthcare, the 11<sup>th</sup> lowest in the world in 2013 (Extract 2). Hence the Indian government could just reallocate more of the total healthcare spending towards primary healthcare.</p> <p><b>2) Increase number of doctors in rural area</b></p> <p>India should also increase number of doctors in rural area as 70% of Indian population still lives in rural area. There may be a lack of doctors in the rural area as there is <b>limited or no access to hospital and clinics</b> (Extract 2) to meet the huge demand and resulted in low consumption of healthcare and therefore poorer healthcare outcome. India government could subsidize the training of new doctors so that the cost of a medical degree is lower and <b>supply of doctors would increase.</b> With the increase in supply of doctors,</p>	
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	<p><b>more people could get access to doctors</b> and get treated.</p> <p>However, training of doctors takes time and healthcare outcome may only improve in the long term. Hence it may not be the most appropriate measure if healthcare outcomes were to improve quickly.</p> <p>While increasing number of doctors would mean more people could get treated at a cheaper price, it may not be the most appropriate measure as it does not solve the problem of poor sanitation in India which increased the possibilities of people getting infected.</p> <p><b>3) Use new technologies</b></p> <p>India could also use new technologies to improve its healthcare outcomes. The use of new technologies would <b>improve the quality of healthcare services</b> and productivity level, thus allowing more patients to be treated more effectively. Examples include the use of more advanced medical equipment which allows doctors to detect diseases more accurately and prescribe the correct drugs so that people become healthier and can live longer.</p> <p>However, the use of new technologies could increase the price of healthcare services as the cost of these new technologies may be passed onto the consumers. Price of healthcare services would increase if productivity level does not increase sufficiently. The rural population may not have the purchasing power to pay for the better quality healthcare services even with the increase in subsidies. Moreover, <b>India lacks basic healthcare services and not higher quality healthcare services</b> hence it may not be the most appropriate measure.</p> <p><b>Conclusion</b></p> <p><b>India should only implement the measures which can tackle the root causes of its poorer healthcare outcome.</b> From the data given, India faces inadequacies in terms of quality sanitation and knowledge of proper healthcare (imperfect information). Hence increasing subsidies and using new technology may not be the appropriate measures. Increasing number of doctors in the rural area would be more appropriate especially if the doctors can impart knowledge about proper healthcare to the Indians rural population</p> <p>Other policies may be more appropriate such as <b>education and legislation on compulsory vaccination</b> as these policies tackle the root causes of the problem directly. Awareness campaigns about proper healthcare could be conducted in the rural area so that the Indian would visit the doctor to receive proper treatment instead of relying on herbal and alternative medicine. A law may be enacted to ensure all children are immunized against measles to protect themselves from the deadly disease.</p> <table border="1"> <thead> <tr> <th colspan="2">Level descriptors</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>L3</td><td> <ul style="list-style-type: none"> <li>Developed and balanced analysis on whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare</li> </ul> </td><td>5-6</td></tr> </tbody> </table>	Level descriptors		Marks	L3	<ul style="list-style-type: none"> <li>Developed and balanced analysis on whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare</li> </ul>	5-6	
Level descriptors		Marks						
L3	<ul style="list-style-type: none"> <li>Developed and balanced analysis on whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare</li> </ul>	5-6						

		<p>outcomes.</p> <ul style="list-style-type: none"> <li>Well supported by case material</li> </ul>		
		<p>L2</p> <ul style="list-style-type: none"> <li>Undeveloped analysis but balanced analysis on whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>Developed but one-sided analysis on whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes.</li> <li>Limited use of case material</li> </ul>	3-4	
		<p>L1</p> <ul style="list-style-type: none"> <li>Descriptive answer with no economic analysis and framework to support.</li> <li>Answer contains conceptual errors</li> </ul>	1-2	
		<p>E2</p> <p>Well-explained judgement about whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes</p>	2	
		<p>E1</p> <p>Unexplained judgement about whether implementing similar measures to the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes.</p>	1	
(c)		<b>Identify the market structure of the pharmaceutical industry in China and USA.</b>		<b>[2]</b>
		The market structure of the pharmaceutical industry in China is <b>monopolistic competition</b> while the market structure of the pharmaceutical industry in USA is <b>Oligopoly</b>		
(d)	(i)	<b>Explain the possible barriers to entry for the pharmaceutical industry.</b>		<b>[4]</b>
		<p><b>Students are to explain any two types of barriers to entry</b></p> <p>One of the possible barrier to entry is <b>patent</b>. Patent is is a set of exclusive rights granted by a sovereign state to an inventor or assignee for a limited period of time in exchange for detailed public disclosure of an invention. Pharmaceutical firms can apply for patent for new drugs created through R&amp;D. Hence existing and new pharmaceutical firms will not be able to manufacture the drugs until the patent expired, giving the firm monopoly power.</p>		

		<p>Another possible barrier to entry is that of <b>branding</b>. Larger existing firms have the financial ability to engage in product differentiation through advertising due to their ability to reap supernormal profit in the short run. Smaller new entrants may not have the brand loyalty to compete with these firms especially if the drugs sold are similar (selling drugs whose patents have expired)</p> <p><b>Significant internal economies of scale</b> can prevent the entry of new firms. The pharmaceutical industry is a highly capital intensive industry where huge amount of money is devoted into R&amp;D of new drugs in order to dominate the market. Potential new entrants may not have the startup fund and researchers to enter the industry. Large firm are also able to spread out its R&amp;D cost over a larger output. Large pharmaceutical firms can also reap marketing economies of scale where the firm can spread its advertising cost over a large output and lower its average cost.</p> <p><b>Safely regulation</b> can be a form of barrier to entry for the pharmaceutical industry. Pharmaceutical firms are subjected to very stringent testing by authorities due to the huge potential health hazard a clinically unproven drug can bring to people. New firms may not have the expertise and technology to attain the necessary safety standards to enter the industry.</p>	
	(ii)	<p><b>Discuss how the market structure of the pharmaceutical industry in China will affect the ability of firms in this industry to make excess profits in the long run when the Chinese government removes price controls.</b></p>	[10]
		<p><b>Introduction</b></p> <p><b>Explain how price control works in the pharmaceutical industry in China and its implication on the likely types of profits pharmaceutical firms are likely to make currently</b></p> <p>Price control in the pharmaceutical industry in China refers to a price ceiling or maximum price legislation in order to keep drug prices low so that medical care is affordable (Extract 3) Hence <b>a price below the market equilibrium price is imposed by the government.</b></p> <p>As the market structure of the pharmaceutical industry in China currently is monopolistic competition due to weak barriers to entry, there are many small firms selling slightly differentiated drugs. <b>Weak market power and the price ceiling meant that pharmaceutical firms in China are likely to make only normal profits (or a small amount of supernormal profit) currently.</b></p> <p><b>Development : Students are to discuss how the removal of price control would affect the ability of different pharmaceutical firms to make excess profit in the long run</b></p> <p>Key idea: <b>The ability to make excess or supernormal profit in the long run</b></p>	

	<p><b>depends on the strength of the barriers of entry which would ultimately determine the market structure of the industry.</b> The higher the barriers to entry, the more market power the firms have and the more able the firms can make excess profits in the long run.</p> <p><b>1) Large foreign pharmaceutical firms</b></p> <p>The removal of price controls would increase the market prices of drugs and <b>increase the amount of profits pharmaceutical firms would make. Bigger foreign firms may now also choose to enter</b> the Chinese pharmaceutical market and they are able to do so due to the weak barriers to entry. US pharmaceutical firms are likely to be bigger as the US pharmaceutical industry is an oligopolistic one. They <b>have the financial capabilities and technological know-how to innovate hence erecting higher barriers to entry in the industry.</b></p> <p>Initially the price controls stifled innovation as there are no incentives for firms to engage in R&amp;D to create new drugs so that they could charge a higher price for it to make higher revenue. The price control will not cover the cost of R&amp;D poured into the innovation. Now due to the removal of price controls, there is now incentive and ability to innovate. As the new drug has no or few substitutes, demand would be price inelastic and a price increase would result in a less than proportionate decrease in quantity demanded. Demand would also increase if the new drug is able to cure illness faster or even provide a cure where no existing drugs can do so. <b>Firms could then apply for patent to be the sole manufacturers for an extended period of time and earn supernormal profit. These supernormal profits can then be reinvested into R&amp;D so that further innovation can take place and stronger barriers to entry can be erected.</b> This may then result in an oligopolistic market in the long run where firms are more able to make excess profits in the long run.</p> <p>Furthermore, these large foreign pharmaceutical have <b>existing brand name and financial abilities to engage in large scale advertising which can create brand loyalty</b>, hence lowering the price elasticity of demand. Demand for the firm's product would also increase as consumers switch from rival firms. The firm can then increase price and receive more revenue. Assuming the revenue earned is more than the cost of the advertising, profit would increase. <b>The increased in brand loyalty also erect a higher barrier of entry in the industry and blocked off potential entrants, enhancing the ability to make excess profit in the long run.</b></p> <p><b>2) Existing firms</b></p> <p>The removal of price control would increase the profit of the existing firms. To compete with the potential entrant of large foreign pharmaceutical firms, these firms could use the supernormal profit earned to engage in R&amp;D to innovate new drugs as well as advertising. Hence the ability of these firms to make excess profits depends on</p> <p>a) The <b>extent of the increase in supernormal profit due to the removal of price control.</b> Both require huge monetary outlay and the</p>	
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		<p>increase in supernormal profit may not be enough for the firms to engage in R&amp;D or advertising.</p> <p>b) What the firms do with the increase in supernormal profit. <b>Without innovation, any advertising is likely to focus on branding where perceived differences are created between rival firms.</b> This would only result in <b>slight product differentiation and barriers of entry would remain weak.</b> Thus the firms are unlikely to make much supernormal profits in the long run</p> <p>c) <b>Whether the firms merged.</b> Merging allows these existing firms to compete more effectively with the larger foreign firms through reaping more internal economies of scale and tapping on existing brand loyalty. Smaller firms would not be able to compete on both quality of drugs and prices hence they would be driven out of the market.</p> <p><b>Conclusion</b></p> <p>The <b>capital intensive nature of the industry means that it is likely to be oligopolistic when the government removed price control and allows free market forces to work.</b> Hence the removal of price control enhance the firms' abilities to make excess profits in the long run but not all existing firms would be able to make excess profit in the long run as the smaller inefficient firms are unlikely to survive. Moreover, innovation takes time and there is no guarantee that it will be successful as there is high risk involved. Given that China is still a developing country with less expertise and infrastructure on R&amp;D, the likelihood of successful innovation is reduced.</p> <p>Whether Pharmaceutical firms in China can make excess profit in the long run when the Chinese government removes price controls also depends on</p> <p>1) <b>Strength of patents:</b> The stronger the patent, the more likely innovation will take place and potential entrants are less able to enter the market. Hence the more able Pharmaceutical firms in China can make excess profit in the long run. Extract 3 pointed out that the regulation in china is not very strong as firms are able to cut corners using inappropriate material in their drug manufacturing process. Hence firms may not be willing to engage in R&amp;D if they feel that the Intellectual Property law is not strong enough</p> <p>2) <b>How open the Chinese government is towards foreign firms.</b> The more open the Chinese government is towards foreign firms, the more likely innovation will take place and potential entrants are less able to enter the market. Hence the more able Pharmaceutical firms in China can make excess profit in the long run. Although the entrant of big foreign pharmaceutical firms could bring about more innovation and thus dynamic efficiency, this would lead to the closure of domestic pharmaceutical firms and thus bring about unemployment. Hence additional government regulation (protectionism) may be imposed to protect the domestic producers and slow down the rate of innovation.</p>	
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## 2015 ACJC Prelim: H2 Case Study 2 (Japan and Greece)

**(a) (i) Explain the theoretical relationship between economic growth and public debt. [2]**

- There is an inverse relationship between economic growth and debt. When economic growth is positive and increasing, public debt should fall. [1]
- As the country experiences improving positive economic growth, national income increases, income tax revenue increases while expenditure on unemployment benefits falls, thus reducing the budget deficit and in turn the public debt levels. [1]

**(ii) How far does Table 4 demonstrate this relationship? [3]**

- The relationship is demonstrated in Greece in 2011 and 2013. During this period, GDP growth worsened while public sector debt was increasing as a percentage of GDP. [1]
- However, the relationship is not demonstrated in Greece in 2012, where GDP growth was improving but public sector debt increased as a percentage of GDP. [1]
- Conclusion: Thus the relationship is demonstrated in Table 4 to a large extent. [1]

**(b) Consider the effects of negative real interest rate on an economy. [4]**

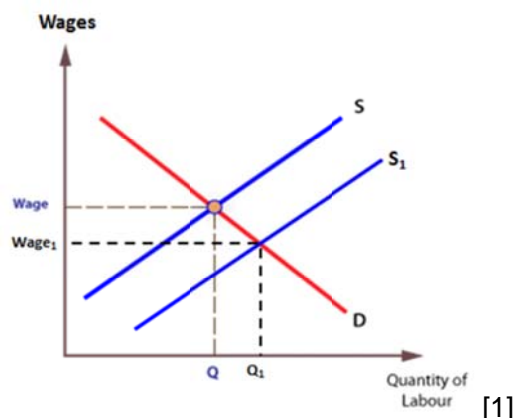
Positive Effects: [2]

- Borrowers no longer have to incur a cost for borrowing. In fact, borrowers are now able to earn returns from borrowing money. This will help to encourage borrowing by consumers and firms to increase consumption expenditure and investment levels.
- The increase in C and I would lead to an increase in AD and increase in national income through the multiplier effect. Economic growth increases, unemployment falls, and inflation levels increase.

Adverse Effects: [2]

- Savings are discouraged leading to less loanable funds available in banks. This could reduce future investment levels and affect the potential growth of the economy in the long run.
- Negative interest rates if used for a prolonged period of time may lead to overheating of the economy once it is out of recession. It may lead to high levels of consumption and investment which increases AD. This causes demand pull inflation if the economy is close to full capacity.

**(c) (i) Using a diagram, explain why the structural reforms identified in Extract 7 “have left many Japanese workers cautious about how Abenomics would affect wages”. [3]**



- According to extract 7, the structural reforms include relaxing migration rules. This could lead to an influx of foreign labour into Japan, increasing the supply of labour. [1]
- An increase in the supply of labour would result in a surplus of labour at the current wage rate. There would be a downward pressure on wages until a new equilibrium, with lower wages, is established in the market. Therefore the risk of falling wages would be a cause for concern for Japanese workers. [1]

(ii) **Assess the likely impact of the structural reforms on the Japanese economy.** [8]

#### Introduction:

Explain the structural reforms:

- Opening up protected sectors which will increase competition. This might drive firms to increase productivity and to find more cost-efficient methods of production, which will lower cost of production for firms as well as to boost productive capacity in Japan (Extract 7).
- Relaxing labour laws are likely to lower wages, which will lower cost of production for firms (Extract 7).
- Technological innovations will also help to boost the productive capacity in Japan (Extract 7).

#### Body:

**Structural reforms will bring about impact on SRAS, LRAS, AD of the Japanese economy, and hence the SOL of its citizens.**

##### **Point 1: Impact on SRAS**

- By relaxing labour laws, this will Increase competition for jobs → Lower wages → lower cost of production → increase in SRAS → growth in the economy

##### **Point 2: Impact on LRAS**

- Opening up protected sectors and relaxing labour laws will attracts foreign firms to invest in Japan due to lower cost of production → increase investment → growth in LRAS → potential growth
- Opening up protected sectors and technological innovations will increase productivity of factors of production → growth in LRAS → potential growth

### Point 3: Impact on AD

- Opening up protected sectors and relaxing labour laws will attract foreign firms to invest in Japan due to lower cost of production → attracts foreign firms to invest in Japan → increase investment → growth in AD → actual growth + creation of jobs and lower unemployment rate (demand deficient unemployment)
- Opening up protected sectors and relaxing labour laws will lower COP → Exports also become more price competitive → growth in exports → actual growth and improvement of BOP (current account)
- While structural reforms will expand the productive capacity of the country, given the current state of Japan, structural reforms may worsen the problem of deflation. Japan is already suffering from very low levels of inflation, with CPI growth falling below 0 in 2010 and 2011. Expanding the long-run aggregate supply through structural reforms will lead to further fall in general price levels. This will cause Japan to be stuck in a deflationary spiral where consumers expect prices to fall further and delay expenditure. It also reduces business confidence in the economy, further reducing investment levels. This will lead to a fall in AD and actual growth.
- By relaxing labour laws, this will increase competition for jobs → Lower wages → lower cost of production. While firms benefit from lower cost of production, Japanese employees may suffer from lower wages due to the loosening labour rules (Extract 7). Existing employees may be fired more easily leading to loss of income. This would lead to lower material standard of living for the Japanese. This could result in a fall in consumption expenditure by households and may lead to a fall in AD → fall in actual growth.

### Synthesis:

- Structural reforms are likely to bring about more harm than good in the short run given that the current situation of the Japanese economy is that of unhealthily low level of inflation and slow growth in Japan.
- However, since structural reforms is used together with other demand management policies, such as the first two arrows of expansionary fiscal policy and quantitative easing (as mentioned in extract 7), it may be beneficial to Japan in the long run. This is because it targets the root problem of poor expectations in the economy.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	<ul style="list-style-type: none"><li>• Well-developed and balanced explanation of both positive and negative impact of structural reforms on the Japanese economy</li><li>• Impact on both AD and AS explained</li><li>• Good reference to data and context given</li><li>• Weighs the positive and negative impact of structural reforms to come to an overall conclusion</li></ul>	5-6
L2	<ul style="list-style-type: none"><li>• Underdeveloped explanation of both positive and negative</li></ul>	3-4

	impact of structural reforms on the Japanese economy <ul style="list-style-type: none"> <li>• One-sided but developed explanation of either positive impact OR negative impact</li> <li>• Impact on either AD or AS explained</li> <li>• Some reference to the context given</li> </ul>	
<b>L1</b>	<ul style="list-style-type: none"> <li>• Descriptive answer lacking economic analysis</li> <li>• Points are largely irrelevant</li> <li>• Pure listing of points</li> </ul>	<b>1-2</b>
<b>E2</b>	<ul style="list-style-type: none"> <li>• Reasoned judgement weighing the positive and negative impact of structural reforms on the Japanese economy</li> <li>• E.g. Structural reforms is likely to bring more harm than good in the short run, if not complemented with other demand-management policies.</li> </ul>	<b>2</b>
<b>E1</b>	<ul style="list-style-type: none"> <li>• Unreasoned judgement</li> </ul>	<b>1</b>

**(d) With reference to the data, discuss whether Japan should adopt similar policies as Greece to reduce their public debt levels and achieve economic growth. [10]**

**Introduction:**

- Explain the various policies that Greece currently adopts to reduce debt and achieve economic growth
  - Austerity measures therefore required to repay debts and also boost confidence in the government to achieve economic growth

**Body:**

**Thesis: Japan should adopt similar policies as Greece.**

- Explain the similarities in the problems faced by Greece and Japan that may hence require the same policy tools:
  - *Greece: (as seen in Table 4)*
    - *High level of debt (up to 156%), debt is held externally which results in obligations to repay debts and to avoid loss due to interest payments.*
    - *Negative real GDP growth from 2010-2013*
  - *Japan: (as seen in Table 3)*
    - *High level of debt (up to 218%), but most of the debt is held domestically, therefore there is less leakage from the economy*
    - *Low Real GDP Growth at 1.6% in 2013*
- In light of similar problems shared by both Japan and Greece, austerity measures seem appropriate for Japan to reduce debt and achieve economic growth.
  - Cutting government spending and increasing taxes seems more appropriate to reduce Japan's debt level. However, this will be

- contractionary and will result in negative growth in the short run.
  - Yet by reducing public debt levels in Japan, this may start to improve business and consumer sentiments which will increase C and I and increase AD and NY in the long run (Extract 5).
- However, austerity measures will have a contractionary effect on Greece's economy and will result in negative growth in the short run. By cutting G and increasing T, this will cause a fall in AD and NY. Also, falling GDP will also cause debt-to-GDP ratio to look less favourable in Greece (Extract 5). Hence Japan should not adopt similar policies as Greece but adopt alternative policies to generate economic growth in both the short and long run instead.

**Anti-thesis : Japan should not adopt similar policies to Greece but other policies that was mentioned in Abenomics in Extract 7**

- Explain the various policies that Japan should adopt instead:

**A: Japan should not adopt similar policies to Greece but instead adopt DD-management policies to reduce their public debt levels and achieve economic growth (Extract 7)**

- Expansionary MP by increasing domestic money ss –Quantitative Easing or lowering domestic int rates – describe mechanism & its impact on C & I
  - The impact: Rise in AD would promote the level of economic activity that leads to greater employment of resources (esp labour – derived dd) leading to a magnified rise in NY due to the multiplier effect–achieving actual growth.
  - Contextualisation/Link to the question:
    - In light of Japan's high debt level, since monetary policy does not require government spending, it is an appropriate policy tool for the Japanese government to use in order to stimulate aggregate demand.
    - Though, expansionary interest rate policy may seem to work, but in reality the Japanese economy is facing a liquidity trap - interest rate is so low that it is currently in the negative region. Even with low interest rates, confidence in the economy remains low.

OR

- Expansionary exchange rate policy by depreciating the external value of the Yen – describe mechanism & its impact on net Xs
  - The impact: Rise in AD would promote the level of economic activity that leads to greater employment of resources (esp labour – derived dd) leading to a magnified rise in NY due to the multiplier effect, achieving economic growth.
  - Contextualisation/Link to the question:
    - Since expansionary interest rate policy will not be effective in Japan due to weak domestic confidence, exchange rate policy will be an alternative policy Japan can consider.
    - Exchange rate policy will be especially effective since Japan cannot rely on domestic demand for growth during a recession, when business and consumer confidence is weak.
    - Due to Japan's trade dependence, the most appropriate dd-mgt policy for Japan is expansionary exchange rate policy but the impact of this must be able to overcome the contractionary impact of the eroding market confidence - offsetting the fall in C & I.

- Expansionary FP by increasing G more than the contractionary impact of the sales tax (ie. fall in C & I) – describe mechanism & its net impact on AD
  - The impact: Rise in AD would promote the level of economic activity that leads to greater employment of resources (esp labour – derived dd) leading to a magnified rise in NY due to the multiplier effect, achieving economic growth.
  - Contextualisation/Link to the question:
    - But expansionary fiscal policy need not lead to a worsening of debt and hence it may still be appropriate. Since the economy is in recession, the government should not try to reduce its debt yet, but wait for the economy to recover, as growth will help to alleviate the debt levels.
- Hence it will be more appropriate for Japan to use expansionary demand management policies to reduce public debt and achieve economic growth. Growth will also help to reduce public debt levels in the long run. As the country experiences positive economic growth, national income increases and as a result, income tax revenue increases. In the same way, through increasing tax incentives/concessions, this will increase the profitability of firms, which will also increase tax revenue and thus reduce budget deficit. Also, as the country experiences increase in economic growth rates, this will lead to higher production and hence higher demand for labour, increasing employment levels. This will cause expenditure on unemployment benefits to fall, thus reducing the budget deficit and in turn, public debt level falls.
- Unlike Greece, most of Japan's debt is held domestically (Extract 8). This means that it is not so urgent to reduce their debt now. This is because domestic debt will not have an impact on Japan's BOP and will not lead to a depreciation of its currency. Contrary to Greece, Japan does not have to worry about its debt obligation to external parties and to pay back the interest for their loans. However in Japan's case, its priority will be to allow their economy to recover through expansionary DD-management policies first and to repay their debt later.
- Thus Japan should not adopt the austerity measures like Greece, but to implement DD-management policies to reduce their debt levels and achieve economic growth instead.

However, Japan needs to use SS-side policies to address the root problem of poor expectations in the economy in order to get out of the recession and ensure sustainable growth in the long run as well.

***B: Japan should not adopt similar policies to Greece but instead adopt structural reforms (SS-side policies) to reduce their public debt levels and achieve economic growth (Extract 7)***

- Structural reforms are necessary due to existing rigidities such as in the labour market.
- Structural reform as mentioned in c (ii) will help to lower cost of production through lower wages. This will increase SRAS and help boost economic growth
- Exports will be more competitive as well, increasing AD, achieving economic growth.
- Technological improvements and relaxed immigration laws allow for potential growth which will help increase business confidence and grow the economy in the long run
- However, for an economy like Japan which is facing a chronic govt debt, as well as falling external demand, the odds are against Japan in being able to get the funds to incentivize retraining to enhance the labour productivity level or to generate adequate

domestic demand to pursue EG of both types.

- While some supply side policies may require spending by the government, they are able to solve the root problem in the long run and are more sustainable (Extract 6). These policies are more sustainable as they are self-financing. By channelling funds to training workers, this will increase productivity and generate higher income in the long-run. Hence even though these policies may incur higher spending in the short-run and worsen debt levels, this will generate higher income and economic growth in the long-run, which can be used to repay Japan's debt. Hence, expansionary fiscal and monetary policy are needed to complement these structural reforms to reduce public debt levels and achieve economic growth in both the short and long run.

### **Synthesis/Conclusion:**

- Whether Japan should adopt similar policies as Greece or not depends on how similar their economic problems of slow growth and their nature of debt.
- Hence even though Japan is plagued with similar problems in Greece, their policies to reduce debt and achieve economic growth differs greatly. These diverging policies reflect different economic fundamentals, such as differing rates of economic growth and different nature of debt.
- As Greece's debt is mainly held externally while Japan's debt is held domestically, Japan's main priority will be to increase economic growth first instead of reducing public debt, while there was international pressure on Greece to prioritise in cutting its debt.
- Since Greece and Japan have differing economic fundamentals, thus Japan should not adopt the same policies as Greece to reduce debt and achieve economic growth.
- In Japan's case the most appropriate policy measure is not simply a choice between dd-side or ss-side, but whether any macroeconomic policy measure undertaken by the Japanese government would actually achieve any degree of EG that would create a positive ripple-effect (multiplier-accelerator effect) that would gain momentum to cure all the chronic components of the ailing economy albeit one at a time.

Level	Knowledge, Application, Understanding and Analysis	Marks
L3	<ul style="list-style-type: none"> <li>• Balanced and developed discussion of whether Japan should adopt the same policies as Greece to reduce public debt levels and achieve economic growth</li> <li>• Answer exhibits consideration and comparison of the different characteristics of Japan and Greece i.e differing root causes of their debt and negative economic growth</li> <li>• Good reference to data and context given</li> </ul>	7-8
L2	<ul style="list-style-type: none"> <li>• Developed but one-sided discussion of Japan should OR should not adopt the same policies as Greece</li> <li>• Undeveloped but balanced discussion of whether Japan should adopt the same policies as Greece</li> <li>• Answer lacks comparison of different characteristics of Japan and Greece.</li> <li>• Limited reference to data and context given</li> </ul>	4-6
L1	<ul style="list-style-type: none"> <li>• Descriptive answer lacking economic analysis</li> <li>• Points are largely irrelevant</li> <li>• Pure listing of points</li> </ul>	1-3
E2	<ul style="list-style-type: none"> <li>• Reasoned judgement on appropriateness of Greece's policies for</li> </ul>	2

	Japan based on comparison of different root causes of their debt and negative growth for e.g different sources of debt in Japan and Greece.	
E1	<ul style="list-style-type: none"> <li>• Unreasoned judgement</li> </ul>	1

[Total: 30]