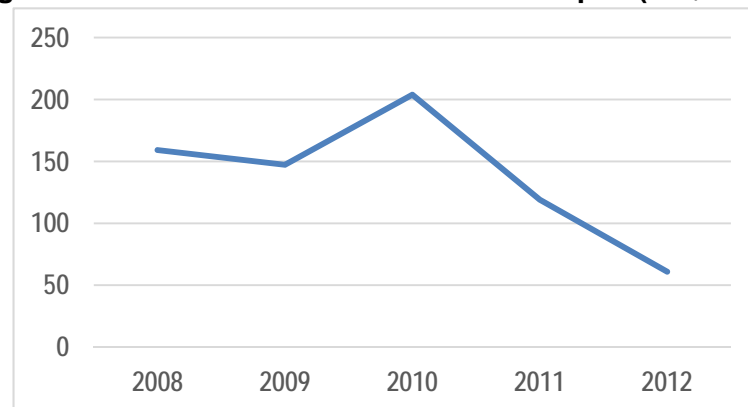


Question 2 Japan's Impending Twin Deficits

Table 2: Selected economic indicators for Japan over the period 2008-2012

Economic Indicator	2008	2009	2010	2011	2012
GDP growth rate (%)	-1.0	-5.5	4.7	-0.5	1.4
Central government debt (% of GDP)	153.1	166.8	174.8	189.5	196.5
Gross fixed capital formation (% of GDP)	22.4	20.8	20.0	20.1	21.1
Exports of goods and services (% of GDP)	17.7	12.7	15.2	15.1	14.7
Imports of goods and services (% of GDP)	17.5	12.3	14.0	16.0	16.7

Figure 1: Balance on current account for Japan (US\$ billion)



Source of Table 1 & Figure 1: *World Bank*

Extract 5: After half a century of trade surpluses, Japan may be seeing red

Japan's merchandise trade moved into the red in 2011—its first annual deficit since 1963. This was partly due to the earthquake and tsunami which disrupted production and exports. Imports were inflated by higher oil prices and larger imports of energy following the shutdown of nuclear-power plants.

But if many plants stay closed, future energy imports will remain high. The stronger yen and weak overseas demand will also keep squeezing exports. The stronger yen and high corporate taxes are also encouraging manufacturers to shift production abroad. JP Morgan forecasts that by 2014, 76% of Japanese car firms' production will be based overseas, up from 49% in 2003. If Japan's trade deficit widens, and net income stays constant, Japan's overall current account is likely to be in deficit by 2015.

Japan's household-saving rate has fallen from 14% of disposable income in the early 1990s to only 2% in the past couple of years. Firms are also unlikely to keep piling up cash as profits are being squeezed and they may invest more abroad.

Even more worrying are the implications for financing Japan's government debt. Japan's debt mountain reflects low taxation as much as unsustainable spending. The government has room to increase taxes, particularly on consumption. If it does not act, a current account deficit and an unsustainably high public debt are the ingredients of a potentially lethal cocktail.

Source: *The Economist*, 14 Jan 2012

Extract 6: Hope for Japan, despite trade slump

Japan posted its worst September trade figures in more than 30 years, as the global slowdown and a dispute with China weighed on the world's third-largest economy.

Tokyo and Beijing have been embroiled in an increasingly bitter territorial dispute over an East China Sea archipelago. Demand dropped for Japan-branded products including industrial machinery and cars, while a broader economic slowdown in China factored into the weak figures. Japan's top three automakers said their sales in China plunged last month, with Toyota posting the biggest drop of 48.9%.

However, Daiju Aoki, an economist at UBS in Tokyo, said China trade was likely to turn around when the world's second-largest economy picks up, regardless of the diplomatic dispute.

The trade slump with China also came at a time of a broader downturn. Weakness in the United States and Europe, two key markets for Japanese products, has also weighed, with US-bound exports up just 0.9% in September, while shipments to debt-hit Europe dived 21.1%.

But Mr Nicholas Weindling, who runs the JP Morgan Japanese Investment Trust, says the Japanese economy is well positioned to take advantage of significant Asian and Pacific trading potential and benefits from Chinese and other emerging-market demand.

"While it is still a challenging market, long-term performance in Japan remains on an improving trend. It has been tough for investors in Japan, but there is a group of companies in Japan which are very strong. It is no longer about the household names such as Sony, Panasonic and Sharp but new, more dynamic, companies in niche sectors such as internet shopping, sheltered housing, health care and robotics."

"Japan is still a world leader in areas like robotics and factory automation. Wages are going up in China so companies have no choice but to install factory automation," he said.

Source: *The Telegraph*, 22 Oct 2012

Extract 7: Too early to tell if pump-priming works

Japan's budget deficit in 2012 was more than 10% of GDP. But rather than rushing to reduce the deficit, Japan's new Prime Minister, Shinzo Abe, implemented bold economic policies, dubbed "Abenomics". These include a pump-priming strategy of spending ¥200 trillion over the next 10 years on public works to improve disaster preparedness and more importantly to create jobs.

Japan's central bank is also committed to raising the inflation rate to 2%. Implicit in this commitment is the notion that the bank will buy up as many Japanese government bonds as needed to reach its inflation target. In other words, the bank is prepared to print lots of money. And with interest rates kept low, the yen has started to weaken.

The government is also attempting to promote private sector investment. These outlays can be stimulated by deregulation, infrastructure investment and tax incentives. Again, there could be some effect on greater government deficits but the government believes it would be a small price to pay.

In short, it is hard to tell a story about how Japan will suffer as a result of the measures its government is taking to boost growth and create jobs. These policies are 180 degrees at odds with the deficit fixation that dominates US policy debates. The US have made enormous progress in reducing the government deficit over the last few years. The 2013 deficit, measured as a share of GDP, is less than 40% the size of the peak deficits in 2009 and 2010. However,

the sharp pace of deficit reduction might mean millions of people not having enough money to support themselves and properly care for their children.

Adapted *The Guardian*, 26 August 2013

Questions

- (a) (i) Describe what happened to Japan's balance on current account over the period 2008 to 2012. [2]
- (ii) To what extent is Japan's balance on current account affected by the changes in exports and imports of goods and services as shown in Table 2? [3]
- (b) Account for the change in Japan's central government debt between 2008 and 2012. [2]
- (c) Using Keynesian analysis, explain how the change in Japan's household-saving rate will affect the equilibrium level of national income. [5]
- (d) With reference to the data where appropriate, discuss how the Japanese economy might be affected by the developments in Asia. [8]
- (e) Extract 7 suggests that it is too early to tell if "Japan will suffer as a result of the measures its government is taking to boost growth and create jobs".
- In light of the risk of twin deficits, assess the appropriateness of the measures undertaken by the Japanese government. [10]

[Total: 30]

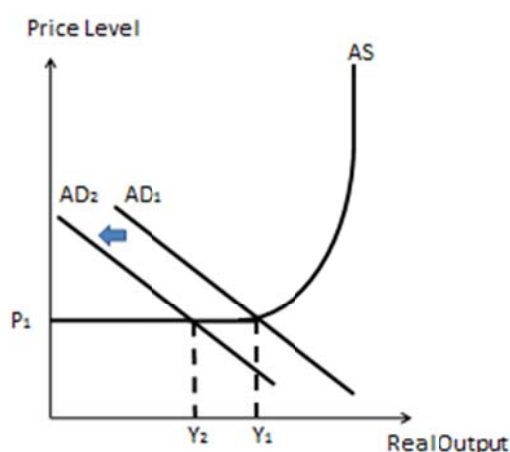
- End of Paper -

(a)	<p>(i) Describe what happened to Japan's balance on current account over the period 2008 to 2012. [2]</p> <p>Japan's current account surplus [1] decreased by about 62.5% [1].</p> $160-60/160 = 62.5\%$
	<p>(ii) To what extent is Japan's balance on current account affected by the changes in exports and imports of goods and services as shown in Table 2? [3]</p> <p>Exports (as % of GDP) generally decreased more than imports (as % of GDP), resulting in an overall decreasing trade surplus and a deficit since 2011. As a component of the current account, this could have led to the overall decreasing current account surplus.</p> <p>However, the current account balance could have also been affected by net income flows and current transfers but there is no information on these components.</p>
(b)	<p>Account for the change in Japan's central government debt between 2008 and 2012. [2]</p> <p>Extract 5 mentions low taxation rate and unsustainable government spending, suggesting insufficient tax revenue to finance the large and increasing government spending, thus resulting in an increasing government budget deficit. This deficit has to be financed by borrowing resulting in an increasing government debt.</p>
(c)	<p>Using Keynesian analysis, explain how the change in Japan's household-saving rate will affect the equilibrium level of national income. [5]</p> <p>The fall in household saving rate suggests an increase in autonomous C_d and MPC_d. Rise in injection increases $AE \rightarrow$ multiple increase in national income. Explain clearly using a Keynesian Cross Diagram or the circular flow of income model.</p>
(d)	<p>With reference to the data where appropriate, discuss how the Japanese economy might be affected by the developments in Asia.[8]</p> <p>Fall in X: Extract 6 - territorial disputes with China, economic slowdown in China Territorial disputes have led to Chinese consumers boycotting Japanese goods, resulting in a fall in demand for Japan-branded products. Economic slowdown suggests falling disposable incomes for Chinese consumers, decreasing their purchasing power and ability to consume goods and services including imports.</p> <p>Quantity demanded for Japan's exports decreases at every price \rightarrow fall in demand for exports, leading to fall in export revenue, ceteris paribus, trade deficit increases, CA balance worsens.</p>

EV: This is also further exacerbated by a strong yen, which causes demand for X to fall further. Overall large decrease in trade balance, large decreases in AD.

Since $AD = C + I + G + X - M$, fall in X leads to a fall in AD from AD₁ to AD₂. Real output falls from Y₁ to Y₂.

Ceteris paribus → leads to fall in real GDP per capita which suggests a decrease in disposable income and purchasing power. The average citizen in Japan can consume less goods and services, thus material SoL falls.



Increase in X and I in future:

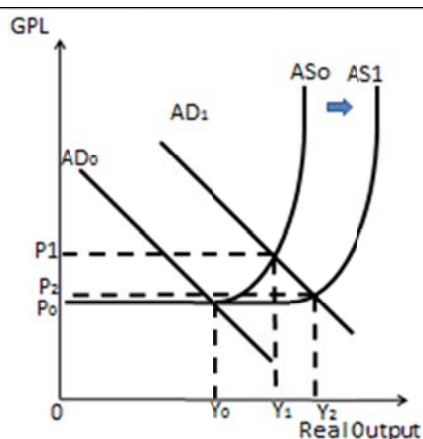
Extract 6 also suggests that Japan is likely to benefit from emerging market demand. As these countries industrialise, they may require more capital machinery, thus importing robotics and automated technology from Japan. The increase in demand for capital goods will offset the decrease in demand for consumer goods from Japan.

Should future global economic outlook improve, developing countries' demand for such technology may increase significantly, leading to an overall increase in X. Thus Japan's CA balance is likely to improve in future.

In addition, the rise of dynamic companies in niche areas such as healthcare and robotics may attract FDIs as existing infrastructure and expertise in such fields may increase investors' confidence and expected yields, leading to increase in I.

Increases in X and I increase AD. Actual growth (real output increase from Y₀ to Y₁), higher employment and higher SoL can be achieved. In the long run, the increase in I will lead to capital accumulation and improvements in state of technology, shifting AS to the right from AS₁ to AS₂. There is potential growth and real output further increases to Y₃, leading to further improvements in SoL.

EV: Volume of I is also dependent on other factors. High corporate taxes may deter investors from investing as post-tax profits may be low. AD and AS may increase by a small extent.



Make overall judgement on whether Japan is likely to benefit from the developments in Asia.

Level	Knowledge, Application, Understanding & Analysis	Marks
L2	Explain & evaluate a range of factors (3) that contribute to how the Japanese economy might be affected by the developments in Asia using the context the data provided.	4-8
L1	Show an understanding of impact on Japanese economy and identify at least one development in Asia that contributes to it.	1-3

- (e) **Extract 7 suggests that it is too early to tell if “Japan will suffer as a result of the measures its government is taking to boost growth and create jobs”.**
- In light of the risk of twin deficits, assess the appropriateness of the measures undertaken by the Japanese government. [10]**

Level	Knowledge, Application, Understanding & Analysis	Marks
L2	Explain impact of various measures with due reference to case materials, relevant economic concepts and appropriate analytical framework	4-6
L1	Explanation of the impact of at least one measure but the answer will be very closely link to the text and will make limited or only very superficial reference to the tools of economic analysis.	1-3
Up to 4 additional marks for evaluation		
E2	Application of relevant economic concepts to make judgement about the appropriateness of measures with due reference to the risks of twins deficits.	3-4
E1	For comparative comment but the application of economic concepts will be superficial	1-2