PJC 2017 H1 Prelim Exam Paper 1
Question 4: **a) Explain how weakening of a country's foreign exchange rate can cause inflation rates to rise. [10]** **b) Discuss whether the use of supply side policy as a means of solving the problem of inflation is likely to be effective. [15]**
a) Explain how weakening of a country's foreign exchange rate can cause inflation rates to rise. [10]
Inflation is a situation where there is a sustained increase in the general price level. There are mainly two types of inflation, namely demand-pull and cost-push inflation. A weakening of a country's foreign exchange rate causes prices of exports in foreign currencies to fall and prices of imports in domestic currency to rise. This can cause both demand-pull (rising AD) and cost-push (falling AS) inflation. Weakening of the exchange rate causes demand pull inflation. When a currency weakens, it means that the decrease in value of the currency in foreign currencies. Thus, with depreciation, the prices of exports fall in foreign currency while the price of imports in domestic currency rise. With a fall in price of exports, trading partners will increase their quantity demanded for exports. Assuming that the demand for exports is price elastic (PEDx>1), quantity demanded of exports will rise more than proportionately. Hence, export earnings in foreign currency will rise. Imports are more expensive to the locals. This will result in a fall in quantity demanded for imports. Assuming that the demand for imports is price elastic (PEDm>1), quantity demanded of imports will decrease more than proportionately. Thus, expenditure on imports will decrease following appreciation. The rise in export earnings and the fall in import expenditure will mean that the current account will improve. Based on the explanation above, current account will improve if elasticities of demand of imports and exports (PEDx>1 and PEDm >1) are present. With a rise in (X-M), it causes a rise in AD resulting in higher utilization of resources. This increase in utilization soon leads to firms having to pay more for factor inputs such as office space. The increase in rentals and demand for office spaces thus depletes the scarce resources even more resulting in demand-pull inflation. The rise in AD when the economy is at or near full employment will cause a rightward shift in AD curve, from AD1 to AD2 and thus will cause a rise in the GPL, assuming AS remains unchanged. This leads to a rise in the quilibirum general price level from P1 to P2. As resources in the economy are utilized,, the shortage of unemployed resources drives up prices that producers pay for factor inputs and they expect higher prices to produce the real output Yf. Thus, demand pull inflation occurs. Weakening of the exchange rate causes cost-push inflation through imported inflation especially in countries such as Singapore due to her reliance on imports. With a weakening of the exchange rate, imports will become more expensive. Countries who relies heavily on imported products such as oil or primary products such as tin for its production will experience a higher cost of production for many firms. This causes firms to respond by raising the prices of their goods and services to protect profit margins. This causes AS curve to shift upwards from AS1 to AS2 and raises the equilibrium GDP from P1 to P2. Thus, weakening of the exchange rate will cause imported inflation in Singapore. With a depreciation of a country's currency, it can cause demand pull and cost push inflation in a country. In response, the government takes active policies to deal with inflation.

b) Discuss whether the use of supply side policy as a means of solving the problem of inflation is likely to be effective. [15]

Low inflation is an objective of the government as it helps the economy develop and achieve greater efficiency and equity. Inflation can be caused by both demand pull and cost-push inflation. To achieve low inflation, the government adopts supply-side policy to reduce the impact of rising costs and rising AD. The effectiveness of supply side policy in addressing problem of inflation depends on whether it addresses the root cause of inflation.

Supply-side policies are effective in controlling inflation to reduce the impact of rising costs and rising AD in the long term.

Supply side policies aim to improve the productive capacity of the economy via improving the quantity, quality and efficiency in the use of the 4 factors of production. With training and innovation, assuming labour productivity rises more than wages, firms' average costs will fall and the economy's productive capacity will rise. These lead to outward shifts in the AS curve as rising labour productivity increases the productive capacity of the economy, this means reduced likelihood of demand pull inflation since when AS shift from AS1 to AS2, an increase in AD from AD1 to AD2 only increases GPL from P1 to P2. Thus, the economy is able to accommodate increase in AD without having to bear with sudden price increases.

(Insert an AD/AS diagram)

Hence, supply-side policy should be adopted as it is seen as a proactive measure that have the ability to maintain a low and stable rate of inflation but usually with results only in the long run as skills training and upgrading takes time. In addition, retraining and skills upgrading is costly, which could give rise to problems of a depletion of national reserves or a national debt if such policies are financed through borrowing. This would be detrimental to the future generation in terms of lower standard of living and lower incomes if higher taxes are imposed to service the debt. Countries who are in debt may not be able to carry out supply side policies extensively due to debt problems.

Supply-side policies have to be complemented with other short run policies to ensure effectiveness in addressing inflation especially in the short run.

If the root cause of inflation is imported inflation and demand pull inflation from rising exports, exchange rate policy is more effective. For economies like Singapore, who is highly dependent on imports due to small economy lacking resources, are susceptible to imported inflation when world prices of raw materials and essential goods rise. Through an appreciation of exchange rate, Singapore is able to keep the price of her imports low so that she can reduce her rate of inflation due to high price of imports. By keeping the prices of these imported raw materials low, this will enable our firms to keep the cost of production low, hence lowering cost push inflation in Singapore. The lower price of foodstuff ensures that a lower cost of living for her residents and hence they will not demand for high wages thus helping once again to minimise cost push inflation. With an appreciation of exchange rate, it will increase the price of exports in foreign currency and fall in price of imports in domestic currency. Assuming that demand for exports and demand for imports is price elastic, this will lead to a fall in (X-M). This causes a fall in AD reducing demanding pull inflation. Thus exchange rate policy is effective in addressing imported inflation and demand pull inflation from rising exports.

If the root cause of inflation is demand pull inflation from rising domestic demand such as consumption and investment, interest rate policy is more effective.

Suppose an economy experiences demand-pull inflation due to excessive rise in C and I (rise in domestic demand). A government can use contractionary monetary policy (centered on interest rates) to control inflation via raising interest rates. Central bank can raise interest rates (i/r) causing a rise in cost of borrowing. This will result in a fall in consumption of big ticket item and a lower C. A higher interest rate will cause a rise in return to savings meaning a higher opportunity cost to consume leading to a fall in C. Higher i/r, given the same expected returns to investment would meant that less investment projects are profitable and Investment falls. A fall in C and I would cause a fall in AD. An initial change in AD will trigger the reverse multiplier because a fall in investment and autonomous consumption lead to further reduction of spending. In view of the fall in AD, inflationary pressure will ease.

However, contractionary monetary policy is less effective when firms expect returns to more than offset the higher cost of borrowing. For example, under demand-pull inflation where the excessive demand is high relative to supply, the increased profits can more than offset the extra cost of borrowing. Hence, despite the high cost of borrowing due to the increase in interest rates, firms will still continue to borrow to expand their business because of the strong demand for goods and services coupled with the high level of business optimism.

To conclude, supply side policy is effective as a means of solving the problem of inflation as it can reduce the impact of rising costs and rising AD. However, supply-side policy is ineffective as it may not directly address the root causes of inflation in the short run. Thus, the government should adopt a mix of policies such as exchange rate policy and interest rate policy to address the root cause of the inflation as a short term policy and supply side policy as a long term policy.