AP® Macroeconomics
2005 Sample Student Responses
Form B

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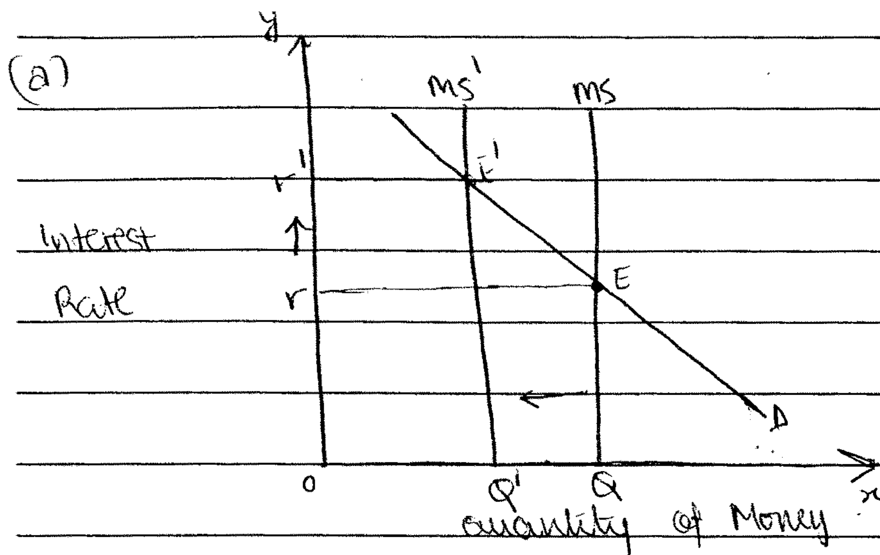
1.

1A1

(a)



Taking Quantity of Money on x axis and Interest rate on Y axis. Money Supply (MS) is represented by a vertical curve since quantity of Money supplied is fixed for a given time period. As a result of an open-market sale of government bonds by the central bank, being a contractionary monetary policy, Money Supply decreases and shifts left to MS'. At this new equilibrium E' the interest rate increases to r'.

(b) The new increased interest rate r' is a nominal rate.

(c) If the inflation rate is not equal to zero (or inflation rate is greater than or less than zero) ie.

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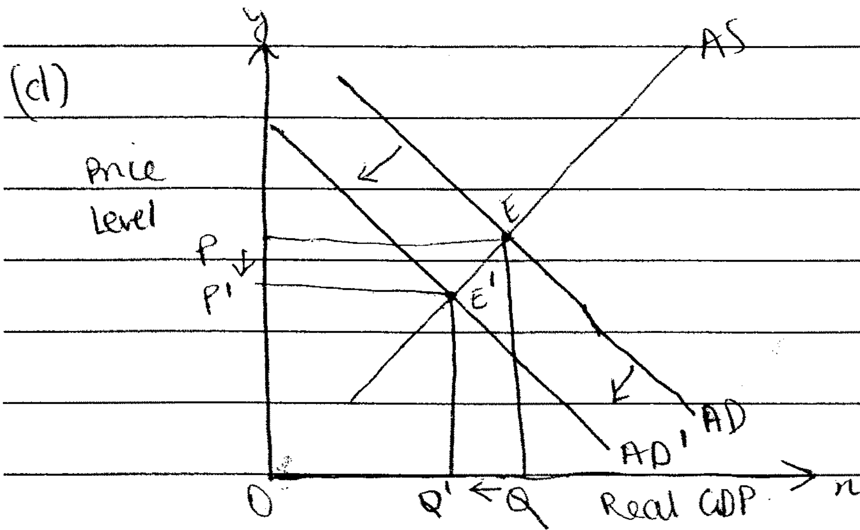
1A2

when there is inflation or deflation, then the nominal rate differs from real interest rate.

(d)



Taking Real GDP on x axis and Price level on Y axis. Initially Aggregate Demand (AD) curve and Aggregate Supply (AS) curve intersect at E where initial equilibrium output is OQ and Price level is OP.

As a result of the open market operation, Money Supply decreases ∴ disposable income drops and Consumption reduces. Since interest rates go up, Investment and Consumption is discouraged and Imports increase ∴ Aggregate Demand decreases and Shifts left to AD'.

At this Short Run equilibrium E'

(i) Real Output decreases to OQ'

(ii) Price level drops to OP'

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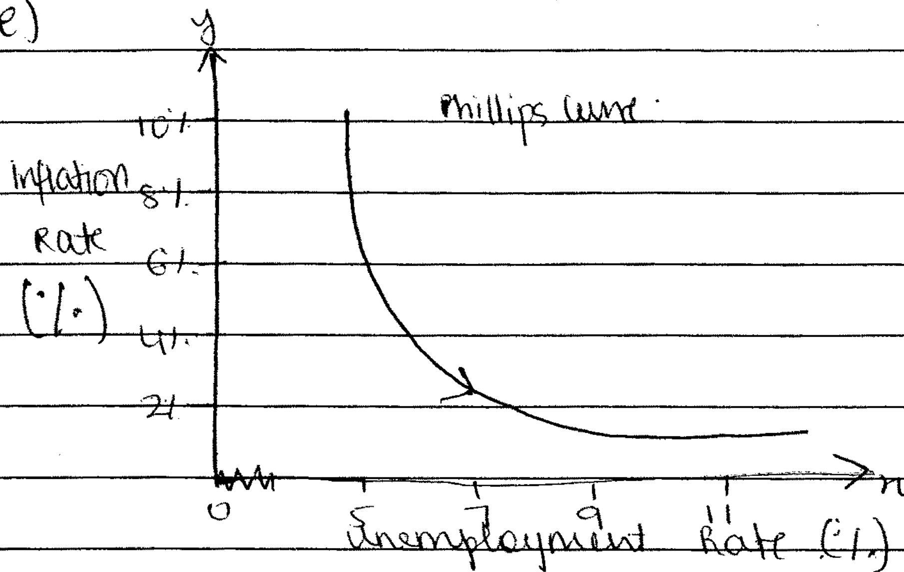
1

1A3

(e)



The Open Market Operation, reduces output and price level ∴ Unemployment increases and Inflation reduces ∴ there is movement down the Phillips curve.

(f) The fiscal policy action of increased government spending and reduction in income tax would increase Aggregate Demand and offset the impact on real output and price level caused by the open market operation

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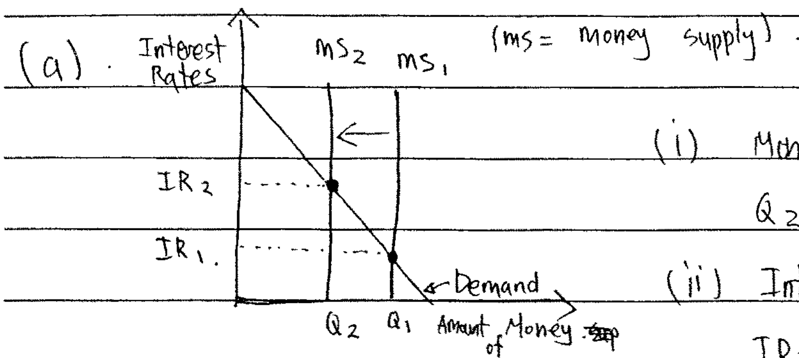
1.

1B

(a).



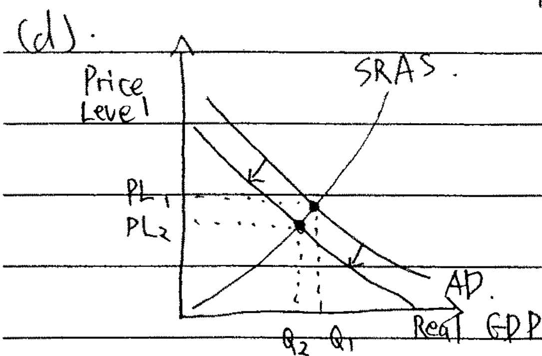
(i) Money supply decreased from Q1 to Q2

(ii) Interest Rate increases. from IR1 to IR2.

(b) It is the real rate.

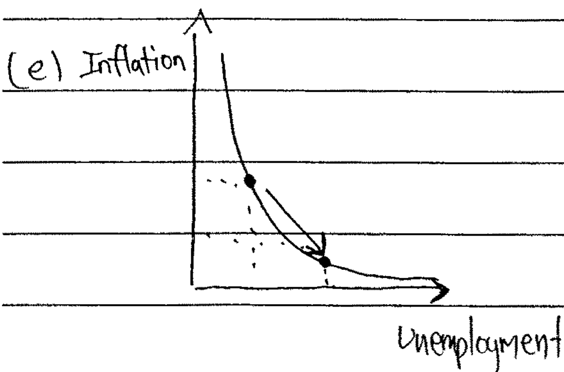
(c) The nominal rate will differ when there is inflation or deflation that isn't checked by any premium is going on.

(d).



(i) Real output decreases. from Q1 to Q2 because a higher interest rate caused less consumption investment and AD.

(ii). The price level also decreases from PL1 to PL2.



(i) The unemployment rose because real GDP decreased, and less of the labor force got utilized.

(ii). Inflation rate fell because of the decrease in prices.

(f) The government can increase government spending (G) to spur an increase of aggregate demand, which will offset the change done by the change in money supply.

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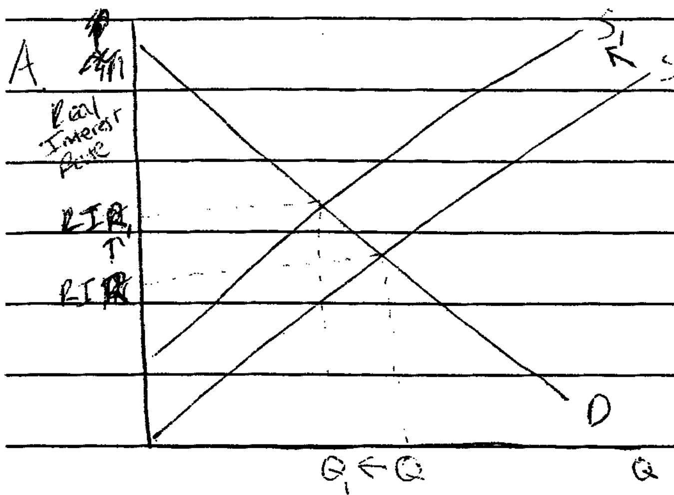
1.

1C1

A.



i. The money supply will go down, because if the central bank sell government bonds on the open market, they are taking money from the public and keeping it in the Federal Reserve. They take this money out of circulation, therefore there is less money circulating.

ii. The interest rate will rise, because there is less money circulating, therefore people don't get as much money and they save less. If the public saves less, there is less money for loans and interest rates go up

B. The real rate of interest goes up, because there is less money in circulation and the same amount of demand.

C. If the demand of money were to change

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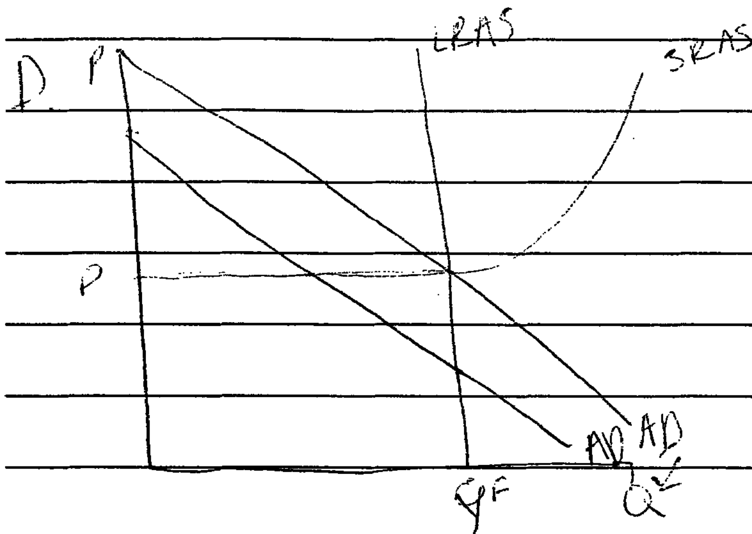
1C2

then it would only be nominal.

D.



i Real output would stay the same, because the economy is operating at full employment. Even though people have less money to spend on goods and services in the short-run the supply would not change, however if this persisted in the long-run the economy would cut back on production.

ii. Price level in the ~~Start~~ short run would stay the same, because prices are sticky downwards.

E. π

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1

1C3

inflation would go down as a result of the money supply going down and if inflation goes down unemployment must go up. Inflation will go down because there is less money and people know and feel that they are poorer therefore they will cut back on consumption, and if they cut back on consumption enough businesses will have to start cutting back on production, therefore laying off workers.

F. The government should increase expenditure and combine that with a reduction on taxes, to give people more disposable income in order to consume more and bring the AD curve back up.

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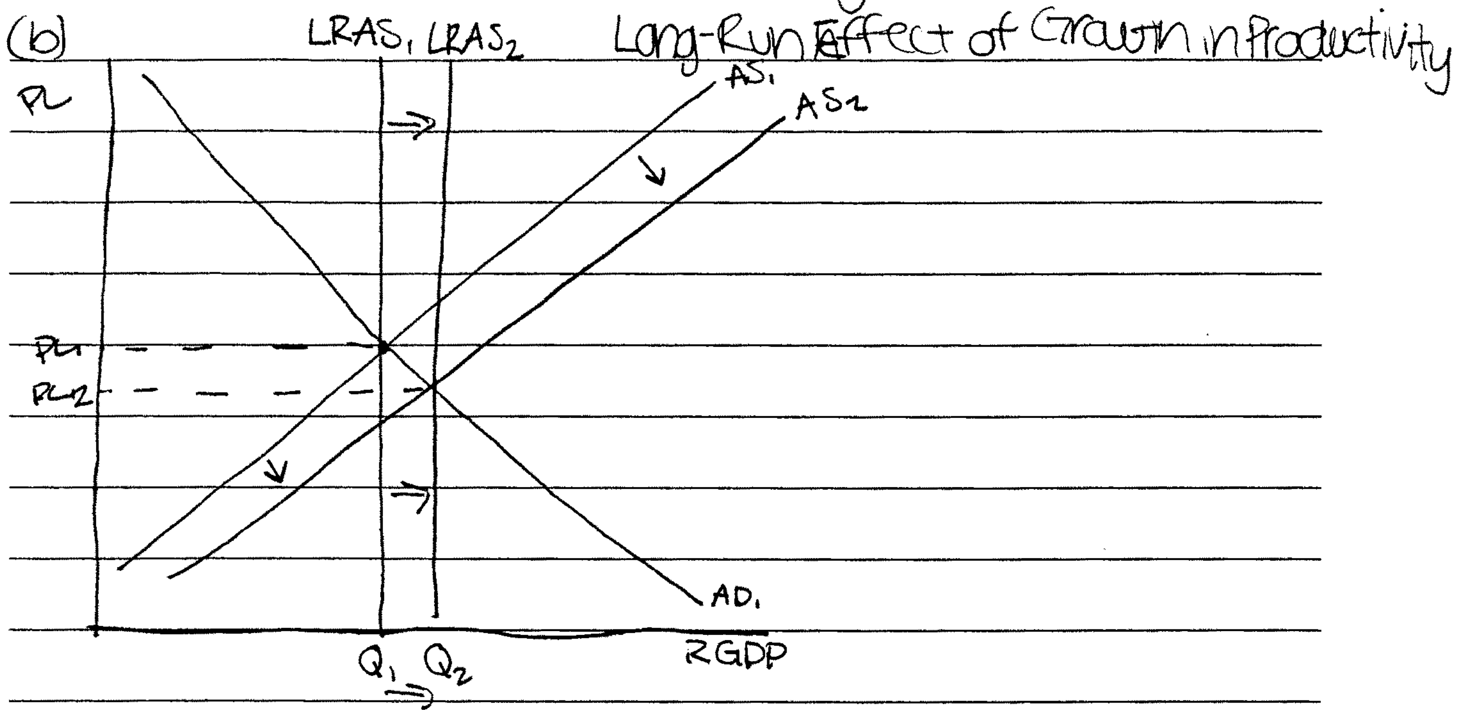
2A

2. (a) Technological improvements and increased skills and training among the work force would be two sources that would increase labor productivity

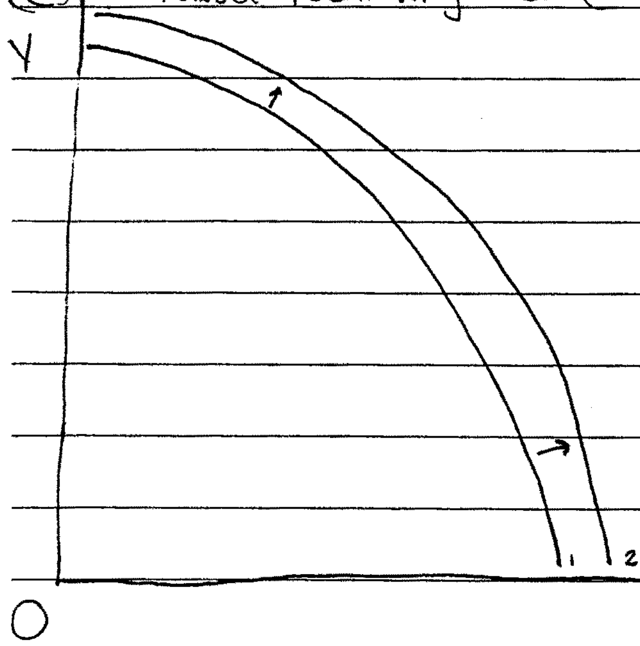
(b)



(i) Real Output would increase from Q_1 to Q_2

(ii) Price level would decrease from PL_1 to PL_2.

(c) Product Possibility Curve



Because of the increase in worker productivity there is also an increase in the Product Possibilities curve. Because the workers are more productive they are able to produce more in a smaller amount of time thus the shift outward.

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(Q2).

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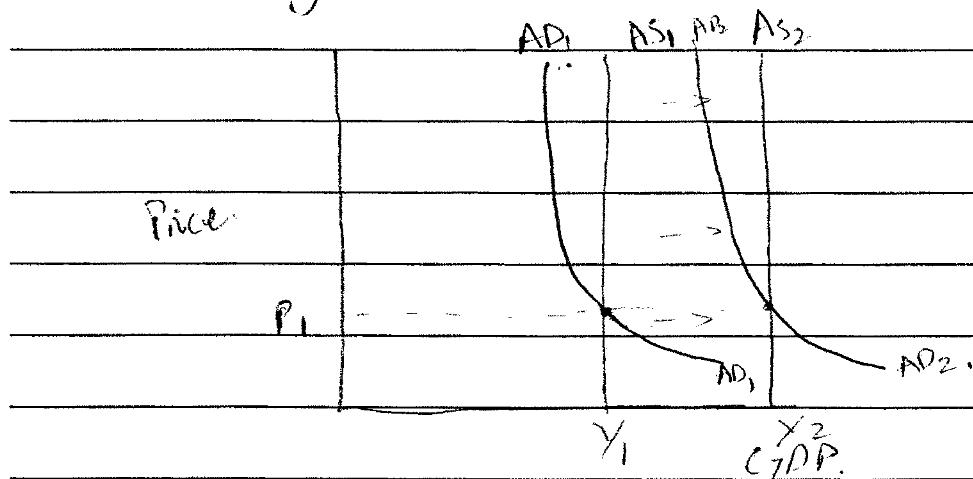
2B1

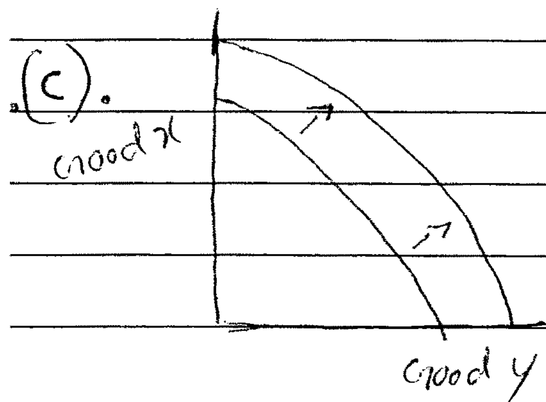
(a). A more trained and skilled labour force will be able to produce more unit of output. Thus Increasing and Improving Education facilities throughout the country will increase labour productivity. New and Improved methods of production will also lead to labour productivity, for example a new machine, less labour required to do the same job thus increasing 'productivity'.

(b)(i) Real output will increase in the long run.
(ii) Prices stay the same.



∴ Since the long-run AS curve has shifted prices will not increase, they will stay the same

(c).



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(Q2).

2B2

The PPC will shift outwards because labour productivity will lead to economic growth and the shifting of the curve outwards indicates that..

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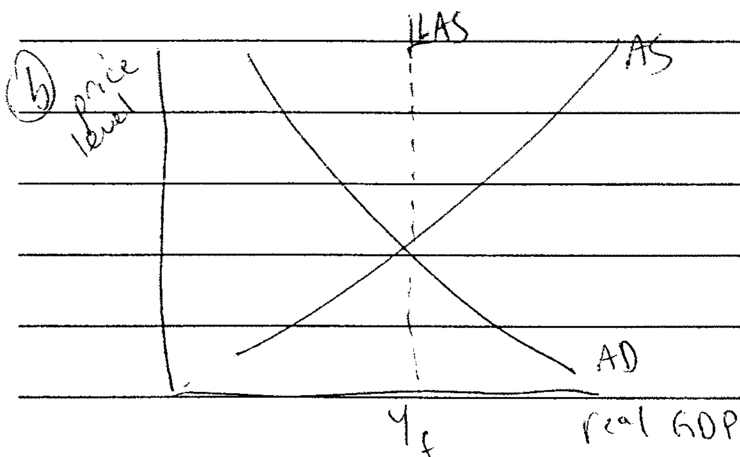
(2)

2C1

(a) One possible source of increase in labor productivity is technological advancement. ~~Machines~~ Better methods of production would certainly help. Another possible source of an increase in ~~the~~ labor productivity could be using cheaper factors of production including cheaper raw materials etc.

(b)



(i) The long run effect ~~of the growth in pro~~ on real out put will remain the same because of the ~~long run ag~~ vertical long run aggregate supply curve. Since the economy is at full employment output, it can't produce any more goods without a dramatic increase in costs, and even so, ~~real GDP remains~~ the the real profit would be unchanged

(ii) As a result, the price level will only increase, and this will not ~~produce more goo~~ a net increase

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2

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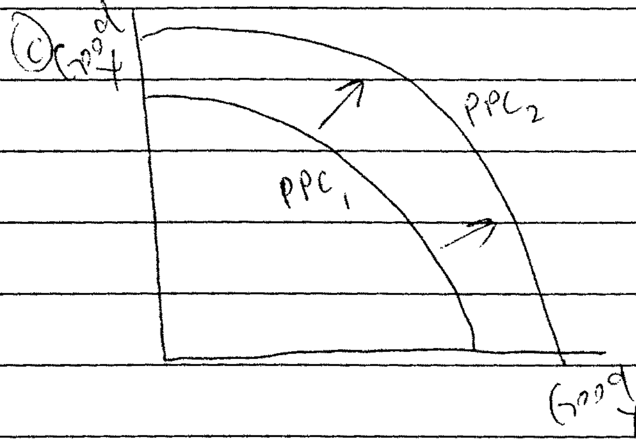
2C2

in the production of goods and services

(c)



Increasing productivity will shift the production possibility curve outward (PPC1 to PPC2). ~~This is the direct result~~ of

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3

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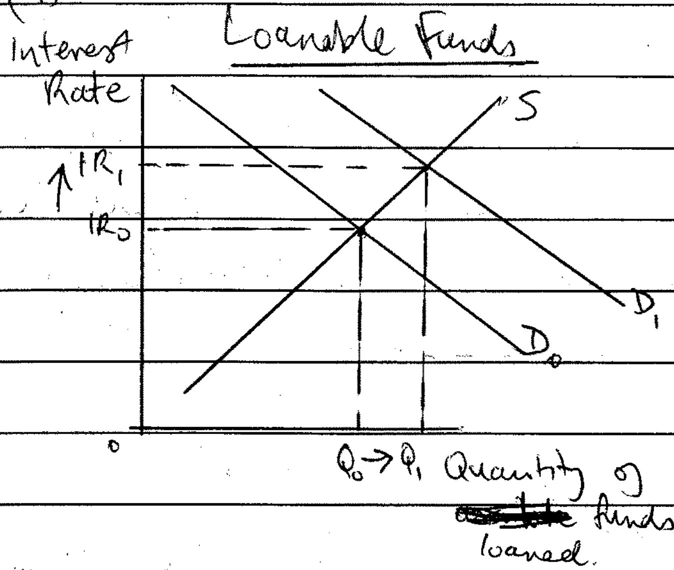
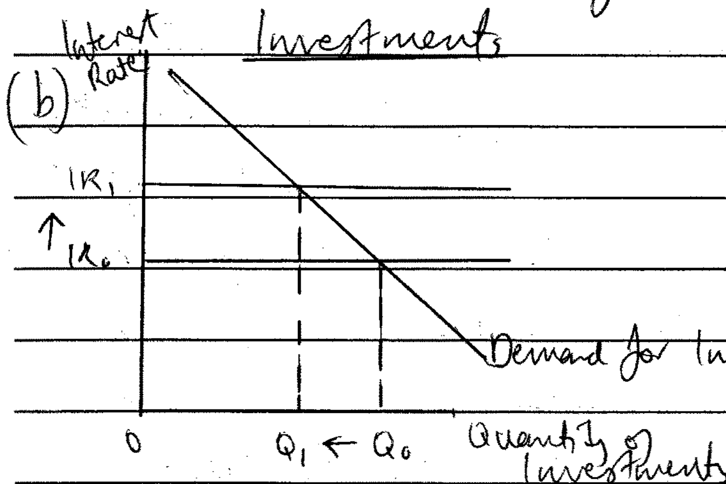
3A,

3 (a)



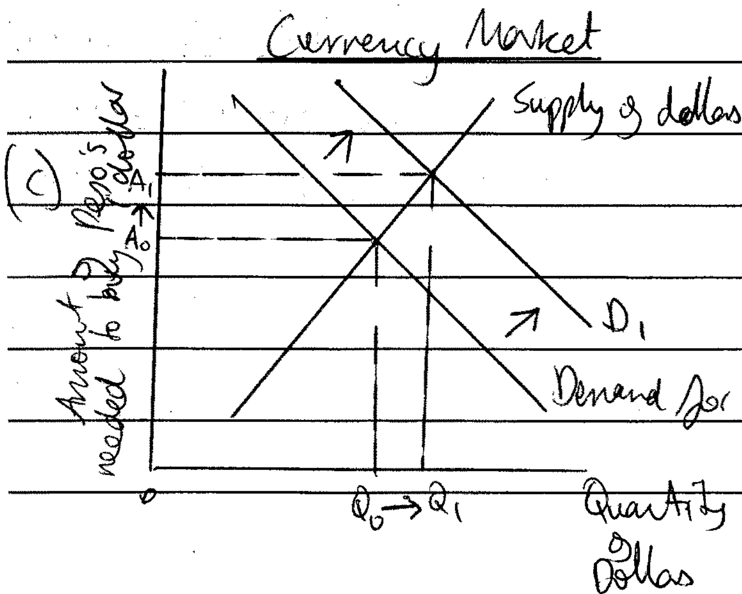
The increase in the demand for loanable funds (caused by the government borrowing money) causes the real interest rate to rise. The government needs to borrow money as it is already in a deficit, so it has no extra funds.

(b)



Due to the increase in interest rates, business investment will fall, shown on the horizontal axes on the graph for investments.

(c)



The increased interest rate in country A causes an increase in demand for its dollar.

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3

3A2

This is because foreign investors want to store their money in a country where their money will earn high interest. The increase demand for country A's dollars leads to an appreciation of country A's dollar. This is exemplified on the vertical axis, the amount of Pesos needed to buy 1 of Country A's dollars.

(d) Country A's goods become less competitive as they are now more expensive in terms of country B's pesos. Country A will therefore import more of country B's goods, and export less of its goods to country B.

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3

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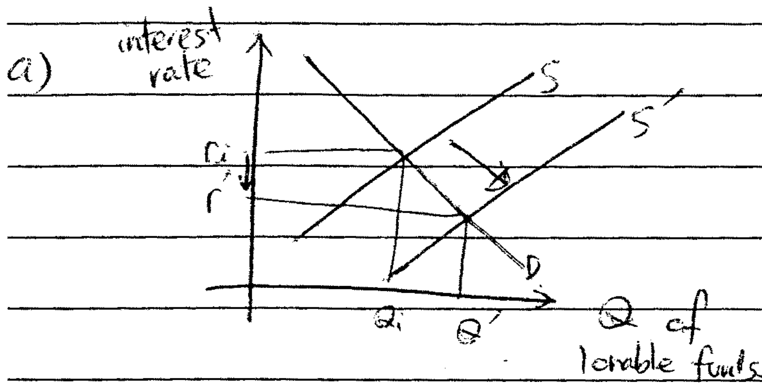
3B

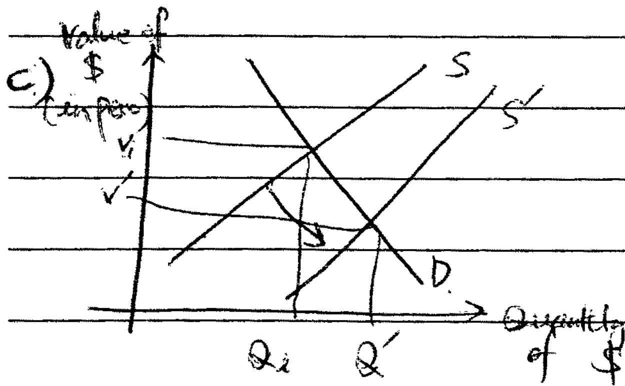
a)



budget deficit means that theres more supply of money, so it shifts S curve to S'. That means real interest rate has decreased from ri to r'.

b) as real interest rate is lower, there would be more investment on business as people cannot earn much from saving money. Also, there's more of loanable funds for business investment.

c)



as there is more supply of dollar due to lower interest rate, value of dollar relative to peso would decrease, from Vi to V'.

d) as country A's dollar depreciates, it would be easier for country B to buy country A's goods. Therefore, competitiveness of country A's goods increases, relative to the goods of country B's.

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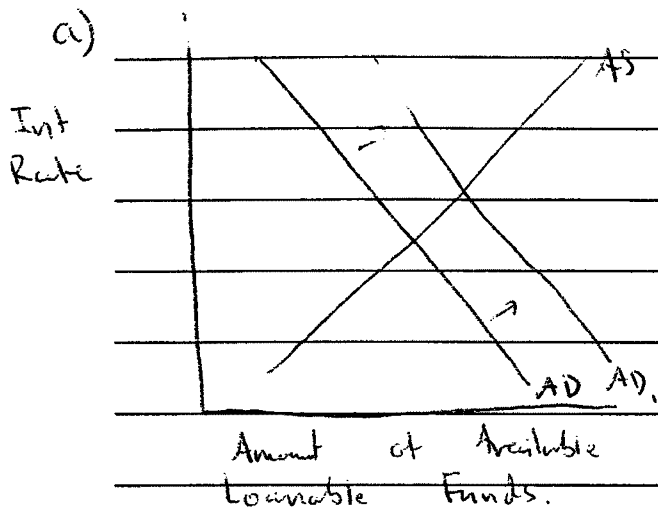
3

3C

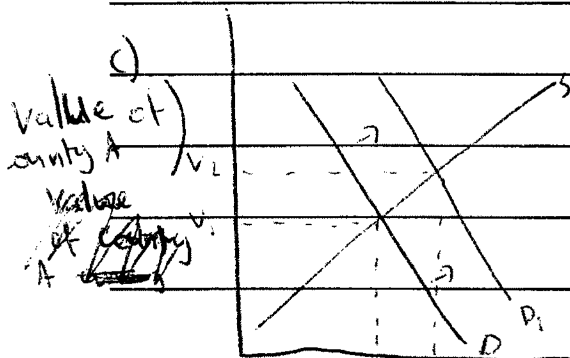
a)



Interest Rates go up as the amount of loanable funds increases.

b) Investment decreases because interst rates are rising and people are saving more.

c)



Since interest rates are higher in county A, the demand for county A's money increases. This results in an increase of the value of county A's dollar. County A's dollar Appreciates.

d) County A's exports decrease because it is worth more but county B's currency doesn't appreciate. Therefore Goods from county A are more expensive and people will by from County B instead. Reducing the competitiveness of County A's goods.

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