Unit 6 Graphing Activity: Bringing ForEx and Current Accounts to the Macro Graphing Party

Directions: Answer each of the following questions on a separate sheet of paper.

1. Apple sells $15 million worth of iPhones to China where the currency is the yuan.
   (a) How will the transaction above affect China's aggregate demand? Explain using an AS/AD graph with a determinant.
   (b) Assume that the United States current account balance with China is initially zero. How will the transaction above affect the United States current account balance? Explain.
   (c) Using correctly labeled graphs of the foreign exchange market for the United States dollar and the Chinese yuan, show how the transaction above impacts the following:
   (i) The supply of United States dollars
   (ii) The value of the United States dollar relative to the yuan
   (iii) The demand for the yuan

2. Suppose that the inflation rate is 5 percent in the United States and 9 percent in India. What will happen to the value of the dollar relative to the rupee. Explain by drawing both currency's ForEx graphs.
   (a) How will the event above impact India's aggregate demand? Explain using an AS/AD graph with a determinant.
   (b) Assume that the US capital(financial) account is initially zero. How will the current account balance be impacted. Explain.

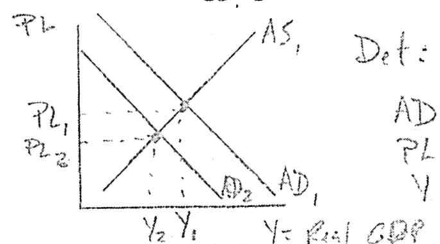
3. Assume that as a result of increased political instability, investors move their funds out of the country of North Korea which is Best Korea.
   (a) How will this decision by investors affect the international value of North Korea's currency the <u>won</u> (what else would those master's of governance call it?) on the foreign exchange market relative to the US dollar? Explain using ForEx graphs for each country.
   (b) Using a correctly labeled graph of the loanable funds market in Best Korea, show the impact of this decision by investors on the real interest rate in North Korea.
   (c) Given your answer in part (b), what will happen to North Korea's unemployment rate using an AS/AD graph.

4. The Fed sells bonds.
   (a) Show the resulting impact on an AS/AD graph in the US.
   (b) Using your answer in part (a) and the resulting impact on national income, what will happen to US demand for Japanese goods like anime, Yu Gi Oh, Pokemon, Hello Kitty, and Ichiro Suzuki?
   (c) Using your answer in part (b) and the determinant of relative national income, what will happen to the value of both the dollar and the yen. Use ForEx graphs for each currency.

5. The US Federal Government is operating with a balanced budget (look, it's an imaginary scenario, work with me people) and decides to increase government spending with no additional tax revenues.
   (a) Using a correctly labeled graph of the loanable funds market, show the impact of this decision on real interest rates in the United States.
   (b) Based on the results of real interest rates in part (a), what will happen to the value of the US dollar compared with the Euro, a major trading partner of the US. Use a ForEx graph for US dollars to show the changing value of the US dollar relative to the Euro.
   (c) Based on the changing value of the US dollar in part (b), what will happen to US GDP? Use a properly labeled graph of aggregate supply and aggregate demand to support your answer.
   (d) Based on this change in GDP illustrated in part (c), what happens to the US unemployment rate? Use a graph of the Phillips Curve to support your answer.

Answers

1. Apple sells $15 million worth of iPhones to China where the currency is the yuan.
   (a) How will the transaction above affect China's aggregate demand? Explain using an AS/AD graph with a determinant.



Det: X_n ↓ as imports ↑

AD: ↓
PL: ↓
Y: ↓

   (b) Assume that the United States current account balance with China is initially zero. How will the transaction above affect the United States current account balance? Explain.

US current account increase with the export

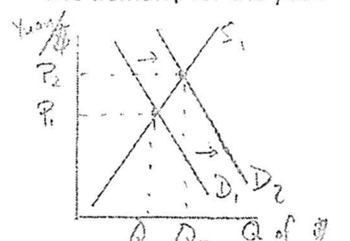
   (c) Using correctly labeled graphs of the foreign exchange market for the United States dollar and the Chinese yuan, show how the transaction above impacts the following:
   (i) The ~~supply~~ demand of United States dollars

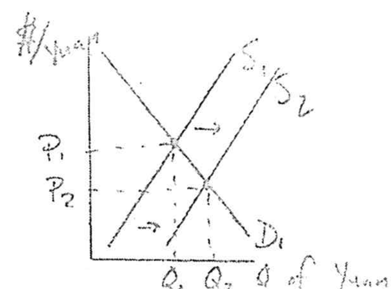
D of $ ↑

   (ii) The value of the United States dollar relative to the yuan — $ appreciates

   (iii) The ~~demand~~ supply for the yuan

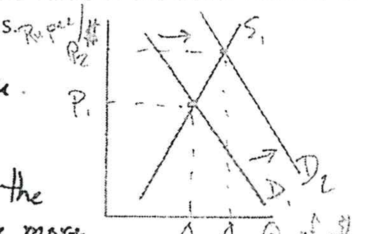
S of Yuan ↑

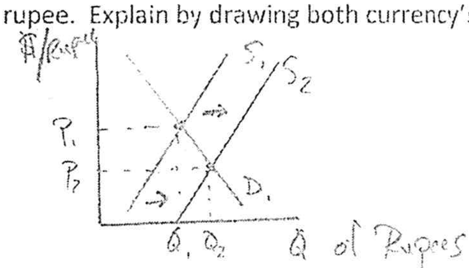




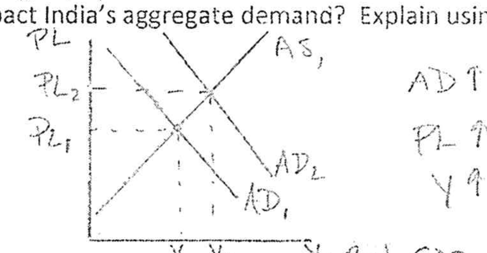
2. Suppose that the inflation rate is 5 percent in the United States and 9 percent in India. What will happen to the value of the dollar relative to the rupee. Explain by drawing both currency's ForEx graphs.

$ appreciates because people prefer to hold $ over rupees as the rupee declines in value more





   (a) How will the event above impact India's aggregate demand? Explain using an AS/AD graph with a determinant.



AD ↑
PL ↑
Y ↑

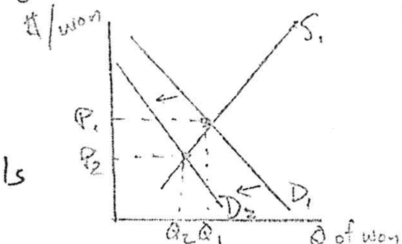
X_n ↑ for India
Indian goods become cheaper as the rupe depreciates increasing exports.

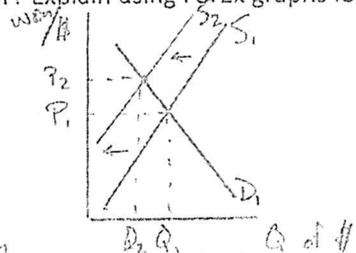
   (b) Assume that the US capital(financial) account is initially zero. How will the current account balance be impacted. Explain.

Capital accounts in the U.S. will increase as investors from India seek U.S. assets

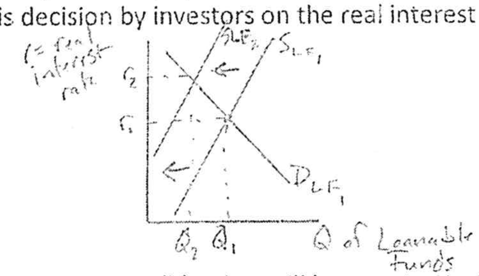
3. Assume that as a result of increased political instability, investors move their funds out of the country of North Korea which is Best Korea.
   (a) How will this decision by investors affect the international value of North Korea's currency the <u>won</u> (what else would those master's of governance call it?) on the foreign exchange market relative to the US dollar? Explain using ForEx graphs for each country.

the won depreciates as people fear it will lose it's value if the government falls





   (b) Using a correctly labeled graph of the loanable funds market in Best Korea, show the impact of this decision by investors on the real interest rate in North Korea.

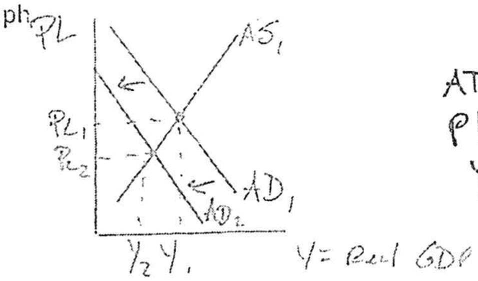


SLF ↓

r ↑

as foreign investors flee North Korean markets there is less money available for loans

   (c) Given your answer in part (b), what will happen to North Korea's unemployment rate using an AS/AD graph



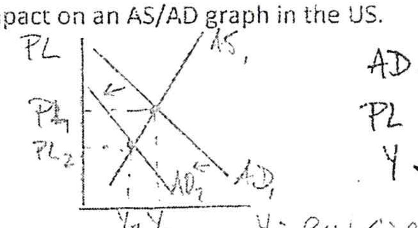
AD ↓

PL ↓

Y ↓

As interest rates rise in the Loanable Funds market Investment becomes costly and I ↓

4. The Fed sells bonds.
   (a) Show the resulting impact on an AS/AD graph in the US.



AD ↓

PL ↓

Y ↓

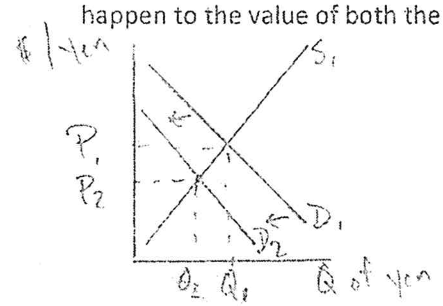
Contractionary monetary policy decreases AD

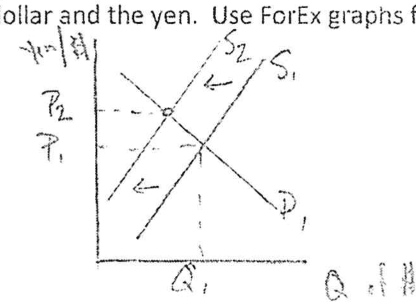
   (b) Using your answer in part (a) and the resulting impact on national income, what will happen to US demand for Japanese goods like anime, Yu Gi Oh, Pokemon, Hello Kitty, and Ichiro Suzuki?

As people in the US become poorer they demand less goods from Japan and elsewhere

   (c) Using your answer in part (b) and the determinant of relative national income, what will happen to the value of both the dollar and the yen. Use ForEx graphs for each currency.

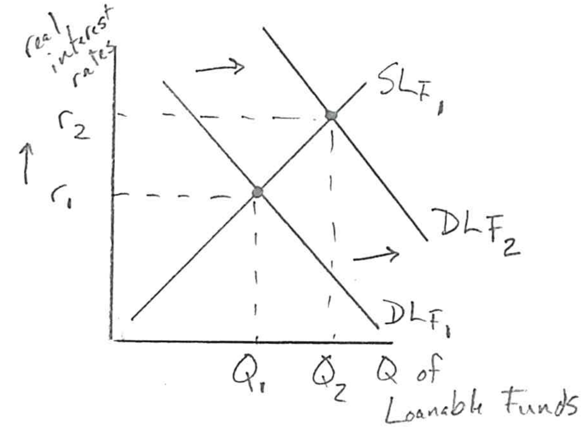
the Yen depreciates





the dollar appreciates

5 (a)



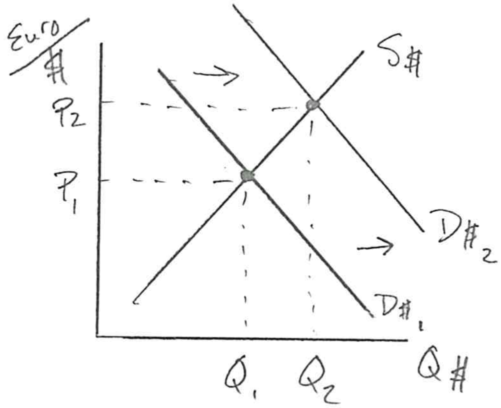
Determinant: Deficit Spending

DLF: ↑

r: ↑

Q_{LF}: ↑

(b)



Determinant: Changes in relative real interest rates

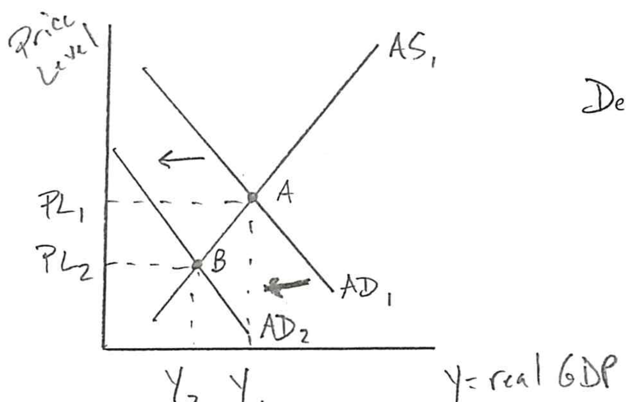
D$: ↑

P$: ↑

Q$: ↑

Dollar appreciates

(c)

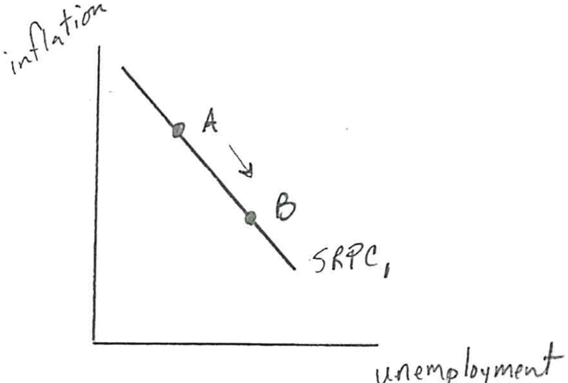


Determinant: ↓ X_n, appreciating dollar causes exports to fall and imports to rise

PL: ↓

Y: ↓

(d)



As AD ↓ prices fall so inflation ↓ while Y declines causing unemployment to ↑.

A change in AD is a movement along the SRPC.