Mid term exam June 18 2013
International Finance 1, Sophia University
Any attempt of cheating would be strictly punished

1 Question (3 points)

We know that money demand function as

$$\frac{M}{P} = L(r, Y)$$

1) Sign the derivatives of

$$\frac{\partial L(r,Y)}{\partial r} \quad \text{and} \quad \frac{\partial L(r,Y)}{\partial Y}$$

2) What is the interest rate in the above specification?

a) stock of value b) medium of exchange c) opportunity cost of holding money

3) Draw the graphic of money market in equilibrium

CR 50000 yen

2 Question (4 points)

The Belgian company, "Waffle", selling the b-pad in Japan has decided to release its new price following a recent depreciation of yen, from 100 yen/euro to 120 yen/euro. The current price of b-pad amounts to 50000 yen.

500 e

1) What is the price of b-pad in euro under the rate of 100 yen/euro?

2) If Waffle decides to behave following a "producer currency pricing", what would be the new price of b-pad in yen? 60000 yen

3) If Waffle decides to behaves following a "local currency pricing", what would be the new price of b-pad in yen? 1 50000 yen

4) In the case of 3), what must be the new exporting price of b-pad in euro?

417 euro

3 Question (3 points)

The net foreign asset positions of US in 2002 is around 20 % of GDP, in which foreign assets held by US citizens amount to 125% of GDP and US liabilities are around 145 % of GDP.

We know that around 65 % of foreign assets held by US citizens are in foreign currency (euro, yen...) while around 95 % of US liabilities are denominated in US dollar.

Assume that US dollar depreciates by 10 % (other currencies appreciate by 10 %).

1) How much is it the gain in terms of US GDP stemming from the valuation changes in US assets following the above depreciation?

2) How much is it the gain in terms of US GDP stemming from the valuation changes in US liabilities following the above depreciation?

3) What do we call the above wealth transfer mechanism resulting from changes in asset prices?

a) valuation effect b) current account c) exchange rate d) NIIP e) value price

4 Question (3 points)

The spot rate of yen/dollar exchange rate is 100 yen/dollar. We know interest rate in US amounts to 2 % and interest rate in Japan is 0.8 %.

1) What is the value of forward exchange rate?

2) The Federal Reserve in US decides to raise interest rate from 2 to 4 %. If the expected exchange rate is the same as the forward rate computed in the previous question and the Japanese interest rate remains 0.8 %, what would be the new spot yen/dollar rate?

3) What we call the above equilibrium relation?

a) arbitrage b) uncovered interest parity c) free rider d) short-term call rate e) LIBOR

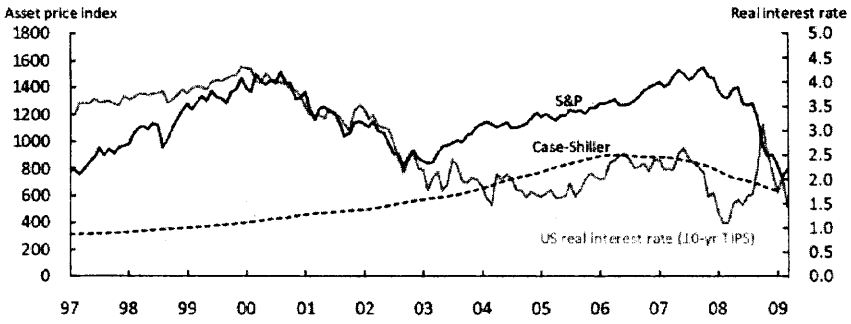
5 Question (3 points)

Read the following text and answer the questions. You can choose as many answers as you want if you think there are many.

"The U.S. real interest rate indeed shows a remarkable coherence with the U.S. equity markets, as illustrated in Figure 7. Both the equity markets and the real interest rate peaked in the period between February and October 2000, and then both began to decline sharply. Real long-term interest rates outside the U.S. also fell. The fall in equity values starting in 2000 could have been caused by a perception of lower future productivity, hence a reduced marginal productivity of capital. (Neither the size of the sharp run-up in equityprices to March 2000 nor the timing of their subsequent fall is easily rationalizable in terms of standard economic theory.) In any case, the data do not support a claim that the proximate cause of the fall in global real interest rates starting in 2000 was a contemporaneous increase in desired global saving (an outward shift of the world saving schedule). Indeed, according to IMF data, global saving (like global investment, of course), fell between 2000 and 2002 by about 1.8 percent of world GDP; aggregate global saving rose only later in the decade. If anything, the fall in real interest rates is more closely related to the global decline of the high-tech sector, which in the U.S. was a main driver of the foreign deficit during the 1990s. To restate this important point, market perceptions that the tech-driven productivity boom of the 1990s had ended, not the rise in global saving that occurred only later in the 2000s, is a more plausible explanation of the general level of low real interest rates at the decade's start."

FIGURE 7

Nominal U.S. Asset Prices and Real Interest Rate



Sources: Standard and Poor's and Global Financial Data

Maurice Obstfeld and Kenneth Rogoff, "Global Imbalances and the Financial Crisis: Products of Common Causes"

1)What is the main driver of decline in the real interest rate at the beginning of 2000s?

a) High saving in China b) Low productivity in US. c) World saving "glut". d) Expansionary US monetary policy e) Liquidity trap

2) When did aggregate world saving rise?

a) later in the 2000s b) between 2000 and 2002 c) in the 1990s

3) What explains the discrepancy between high stock price and low real interest rate starting from around 2003?

a) High productivity in US. b) Expansionary US monetary policy c) High saving in China d) World saving "glut". e) housing boom in US. f) Terrorist attack in September 11

6 Question (4 points)

Explain the overshooting of Dornbusch (1976).

International Fiance I
July 30, 2013

Instructions. Total 20 points. You have 60 minutes

1. (5 points)

   (a) The price of Big Mac in Japan is ¥300 and that in the US is \$3. What is the value of spot exchange rate, if the low of one price holds for Big Mac?

   (b) In reality, we consume not only Big Mac. Instead, we consume a basket of goods including many types of goods and services. We denote such a basket in Japan (in the US) with C (C^*) and its price with P (P^*). The real exchange rate Q is defined as the price of US basket in terms of Japanese basket: $Q \equiv \varepsilon P^*/P$ where ε represents the nominal exchange rate. When $P =$ ¥24000 and $P =$ \$300, what is the value of spot exchange rate under the purchasing power parity (PPP)?

   (c) The actual rate, however, is 72 ¥/\$ ($\varepsilon = 72$). What is the value of real exchange rate (Q) under this rate?

   (d) Is the actual yen-dallor exchange rate ($\varepsilon = 72$) is overvalued or undervalued compared to the implied PPP exchange rate by Big Mac in a)?

   (e) We know that the real exchange rate Q is very volatile overtime. This is due to
   1) high volatility of ε 2) high volatility of P^* 3) high volatility of P

2. (5 points)

   (a) Aggregate demand in open economy can be expressed as

   $$D = C + I + G + EX - IM$$

   How does out put level Y is determined in the short-run?

   (b) Current account CA is , roughly speaking, $EX - IM$ (export minus import). When the real exchange rate Q depreciates, whether CA improves or not depends on *1) the elasticity of substitution between domestic and imported goods 2) pricing behavior of exporting firms 3) exchange rate regime*

   (c) Assume that the Marshall-Lerner condition is satisfied. What is the relation between the nominal exchange rate ε and output level Y with which goods market clears in the short-run?

   (d) In the short-run, money supply and money demand are equalized at the equilibrium interest rate. Also foreign exchange market clears following *1) purchasing power parity 2) uncovered interest parity 3) low of one price 4) Fischer effect*

   (e) What is the relation between the nominal exchange rate ε and output level Y with which both money and foreign exchange markets clear in the short-run?

Read the following text and answer the questions.

"Since the crisis central banks have implemented a variety of non-standard monetary policies aiming at stabilizing nominal demand in the presence of major disruptions in financial markets. These policies had different intermediate objectives: market making, controlling long term interest rates or asset prices, support of credit via subsidies. They had a role in stabilizing financial markets after the collapse of Lehman Brothers and the banking crisis which followed. Their effects on the real economy, however, are uncertain.

Notwithstanding this uncertainty the Bank of Japan has recently engaged in bold action, announcing that it will double the monetary base and its holding of government bonds in the next two years.

-Some think that quantitative easing will fuel the next financial bubble and that exiting will create financial instability (see Stein 2013).

-Others think that more should be done to sustain the real economy.

Adair Turner has recently put a different option on the table (Turner 2013): "helicopter money" or permanent money creation. This is an idea that was originally discussed by Milton Friedman (Friedman 1948) and more recently by Bernanke in relation to the zero lower bound problem in Japan (Bernanke 2003). As Bernanke has suggested it can be implemented via transfers to households and businesses via a tax cut

coupled with incremental purchases of government debt, so that the tax cut is in effect financed by money creation.

Although the idea has been around a long time it is a taboo today. Non-standard monetary policies in response to the recent crisis have all led to an increase in the size of central banks' balance sheets but in the recent experience no central bank, including the Bank of Japan, has purposefully increased the monetary base and committed to keep this additional money in circulation permanently. The idea, however, gets some support from academia.

In his 2012 Jackson Hole speech Michael Woodford suggested a version of flexible inflation targeting whereby the central bank commits future monetary policy to a permanently higher nominal target (such as the path of nominal GDP) and discussed various tools within that framework, including permanent increases in the monetary base via fiscal transfers (Woodford 2012)."

in VOX, *"Helicopter money as a policy option"*, Lucrezia Reichlin, Adair Turner, Michael Woodford, 20 May 2013

3. (5 points)

   (a) What is the idea of "helicopter money"? *1) Money distributed by helicopter from the sky 2) fiscal policy such as tax cut 3) permanent increases in the monetary base via fiscal transfers*

   (b) What is the non-standard monetary policies in recent crisis? *1) quick interest rate cut 2) enlarged central banks' balance sheets 3) Abenomics 4) inflation targeting*

   (c) In a standard open economy model, fiscal policy is *1) very effective compared to closed economy 2) less effective compared to closed economy 3) ineffective*

   (d) In a standard open economy model, monetary policy is *1) very effective compared to closed economy 2) less effective compared to closed economy 3) ineffective*

   (e) Woodford and Turner suggest "helicopter money" policy in under the liquidity trap (nominal rate is close to zero lower bound). What do you think about this policy option? Discuss.

4. (5 points)

   Explain the Bâlassa-Samuelson effect.