Econ 4401 International Economics **University of Minnesota**
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Assignment 4 (Maximum Points: 100)

Note: Assignments must be typed, except graphs and formulas or they will receive a maximum grade of 80%. Please show all your work. Presenting only the final answer without showing your work will result in zero points for that question. For multiple choice questions, clearly state only the correct letter choice.

Due Thursday, December 10.

Multiple-Choice Questions

Each question is worth 2.5 points. Explanation is not required.

1. The reduction or covering of a foreign exchange risk is called
   (a) hedging
   (b) speculation
   (c) intervention.
   (d) arbitrage.

2. An important feature of a _____ is that the holder has the right, but not the obligation, to buy or sell currency.
   (a) swap
   (b) foreign exchange arbitrage
   (c) foreign exchange option
   (d) futures market contract

3. A European option differs from an American option in that it may be exercised
   (a) only on the spot date.
   (b) only on the expiration date.
   (c) only on the future date.
   (d) on any date.

4. For which of the following will the law of one price hold best?
   (a) shirt
   (b) butter
   (c) gold
   (d) milk

5. We can expect deviations from PPP because of
   (a) quotas and tariffs.
   (b) transportation costs.
   (c) differentiated goods.
   (d) All of the above.

6. If the dollar appreciates against the Canadian dollar at a faster rate than the Canadian inflation rate exceeds the U.S. rate, then the U.S. dollar appears
   (a) depreciated.
   (b) overvalued in the PPP sense.
   (c) undervalued in the PPP sense.
   (d) None of the above.

7. If absolute PPP held, then the real exchange rate must be equal to
   (a) a constant.
   (b) one.
   (c) zero.
   (d) a positive number.

8. We expect PPP to hold better
   (a) for annual data than monthly data.
   (b) for high-inflation countries.
   (c) in the long run.
   (d) All of the above.

9. Relative PPP indicates that
   (a) the exchange rate between any two currencies is equal to the ratio of their price indexes.
   (b) the same good sells for the same price internationally.
   (c) the percentage change in the exchange rate is equal to the inflation differential between the domestic and foreign country.
   (d) relative prices determine exchange rates.

10. If a foreign exchange speculator expects the spot rate of the dollar nine months from today to be lower than today's forward rate on the dollar for delivery in nine months, he will
    (a) buy dollars in the spot market nine months from today.
    (b) sell dollars in the spot market nine months from today.
    (c) sell dollars forward today and buy them in the spot market nine months from today.
    (d) buy dollar forward today and resell them in the spot market nine months from today.

11. The domestic currency value of the return on a foreign investment when the foreign currency proceeds are sold in the forward market, is defined to be the
    (a) covered return.
    (b) uncovered return.
    (c) forward return.
    (d) Both (b) and (c).

12. The interest parity condition indicates that the interest differential is (approximately) equal to the
    (a) risk premium.
    (b) forward premium.
    (c) futures premium.
    (d) arbitrage premium.

13. The effective return from a foreign investment is
    (a) the domestic interest rate plus the forward premium (discount).
    (b) the foreign interest rate plus the forward premium (discount).
    (c) the nominal interest rate minus inflation.
    (d) the real interest rate.

14. Suppose that in the United States and the United Kingdom the real rate of interest is 1 percent and constant. In this case, the nominal interest rates in both countries
    (a) are equal.
    (b) differ solely by the expected future spot rate differential.
    (c) differ solely by the expected inflation differential.
    (d) differ solely by the forward rate differential.

15. The interest parity condition indicates that the interest differential is equal to the
    (a) risk premium.
    (b) forward premium.

(c) futures premium.
(d) arbitrage premium.

16. Risk aversion implies that
    (a) people must be paid to take risk.
    (b) individuals with bad credit must pay a higher interest rate than those with good credit.
    (c) investors prefer less risk to more.
    (d) All of the above.

17. By diversifying and selecting different assets for a portfolio, we can
    (a) increase the variability of the portfolio.
    (b) increase the possibility of making direct foreign investments.
    (c) reduce the variability of the portfolio.
    (d) reduce the systematic risk arising from the investments we make.

18. The systematic risk
    (a) is specific to some investments.
    (b) can be eliminated with portfolio diversification.
    (c) is common to all investments and cannot, therefore, be eliminated through portfolio diversification.
    (d) is equal to the difference between the forward rate and the expected future spot rate.

19. ________ is the spending of domestic firms for establishing foreign operating units.
    (a) direct portfolio investment
    (b) foreign indirect investment
    (c) foreign direct investment
    (d) taking a long position

20. International capital flows may be due to
    (a) tax increases.
    (b) capital controls.
    (c) political or financial crisis.
    (d) All of the above.

The Foreign-Exchange Market

21. (6) Suppose you are the treasurer of a firm importing calculators from Japan. You have a ¥62,500,000 payable due in 90 days. The current spot rate is 0.005$/¥, but you expect the yen to appreciate against the dollar over the next 90 days and you buy a call option on the yen. The strike price is $0.0055.

b) (3) If the spot rate in 90 days is .0052, do you exercise the option or let it expire?

Let it expire.

c) (3) If the spot rate in 90 days is .0057, do you exercise the option or let it expire?

Exercise it.

Exchange Rates, Prices, and Interest Rates

22. (6) In 1960, a U.S. dollar sold for 6.2 Swedish Kronas. If absolute PPP held in 1960 and 1987, what would the PPP value of the exchange rate be in 1987 if Swedish prices rose 12 times and U.S. prices rose 4 times between 1960 and 1987?

The exchange rate would have rose 12/4 = 3 times to 6.2*3 = 18.60 Swedish kronas/$.

23. (10) Suppose the US dollar price of a Big Mac is $3.57. The price in China is 12.5 yuan.

(a) (5)What's the exchange rate (yuan per dollar) if absolute PPP holds.

The PPP exchange rate is 12.5/3.57 = 3.50 yuan per dollar.

(b) (5)Suppose the current exchange rate is 6.83 yuan per dollar. Calculate the real exchange rate. Is yuan over- or undervalued against dollar?

The real ER is 6.83/3.50=1.95>1. Dollar is overvalued and yuan is undervalued.

24. (8) Suppose we observe the following 1-year interest rates:

$i_{\$} = 15\%$

$i_{SF} = 12\%$

The exchange rate is quoted as the dollar price of Swiss francs ($/SF) and is currently E = 0.40.

(a) (4) Given the information above, use the approximated interest parity relationship to calculate the 12-month forward rate?

.15 - .12 = (F-.40)/.40, F = 0.412.

(b) (4) Suppose the actual 12-month forward rate is not what you found from (a), but instead is $0.42. What would profit-seeking arbitrageurs do?

Since the return to holding franc assets is higher (.15<0.17=.12+ (.42-.40)/.40), arbitrageurs buy franc assets and sell dollar assets. E.g., an American investor can make profit by selling dollar assets, buying Francs today, investing in Franc assets and selling Francs in the forward market.

25. (8) Answer the following questions.

a) (4) Write and explain the Fisher Equation.

Nominal IR= Real IR+ Expected rate of Inflation.

b) (4) Suppose the actual rate of inflation turned out to be greater than the expected inflation. State whether the following quote is true or false, and then explain your answer.

"Lenders benefited from unexpected inflation but borrowers were hurt by it."

False. Unexpected inflation lowers the real interest rate that the lender receives. The borrower, on the other hand, had to pay back less $ in real terms.

26. (10) Read Paul Krugman's article on NY Times about a tax on international financial transactions (a.k.a. Tobin Tax) and NYU Professor Aswath Damodaran's response to it on his blog. (Links are given below.)

Describe the tax policy that is being discussed. Discuss the benefits and shortcomings of such a financial transactions tax.

http://www.nytimes.com/2009/11/27/opinion/27krugman.html?ref=opinion

http://aswathdamodaran.blogspot.com/2009/11/tax-on-financial-transactions-good-or.html