1) According to national income accounting, which of the following could lower the U.S. current account further into deficit:
   a) cut in government spending
   b) fall in private saving
   c) fall in private investment spending
   d) rise in government saving
   e) all of the above

2) If the U.S. has a current account deficit and has a 0 capital account balance, the balance of payments identity implies that the financial account is in _____ and the U.S. external wealth is _____.
   a) deficit, rising
   b) deficit, falling
   c) surplus, rising
   d) surplus, falling

3) Which of the following could explain why the gross national income (GNI) of Kuwait is higher than its gross domestic product (GDP).
   a) foreign-owned factories are located there
   b) foreign workers are located there
   c) it owns capital abroad
   d) all of the above

4) According to the ‘asset approach’ to exchange rates, if Brazil has a flexible exchange rate and its central bank cuts its money supply temporarily, the short-run effect will be to make Brazil’s interest rates _____ and the value of Brazil’s currency _____.
   a) rise, depreciate
   b) fall, depreciate
   c) fall, appreciate
   d) rise, appreciate
   e) fall, not change

5) Suppose that Denmark commits to fixing its exchange rate against the euro at a rate that is too high (krone/euro). This means the level of foreign reserves at the Danish central bank will _____ and the level of Danish money supply in circulation will _____.
   a) rise, rise
   b) fall, fall
   c) rise, fall
   d) fall, rise
   e) fall, not change

6) The monetary approach to exchange rates applies
   a) when prices are sticky
   b) when prices are flexible.
   c) in the long run
   d) both a and c
   e) both b and c.

7) According to the monetary approach, countries that continuously print a lot of money tend to have _____ inflation rates and ____ exchange rates (home currency units per foreign currency)
   a) high, falling
   b) low, rising
   c) high, rising
   d) low, falling

8) According to the trilemma theory, if China has a fixed exchange rate and wants monetary policy autonomy, then it cannot have
   a) capital controls
   b) capital account surplus
   c) capital account deficit
   d) capital mobility

9) Suppose the peso/franc exchange rates is 4 and the dollar/franc exchange rate is 2. What is the dollar/peso exchange rate?
   a) 4
   b) 2
   c) 0.5
   d) 0.25
   e) not enough information
10) What property guarantees the answer to the question above:
   a) arbitrage
   b) absolute PPP
   c) relative PPP
   d) risk premium

11) Suppose you have $1000 to invest for one year, and the annual interest rate on a dollar account in the U.S. is 2%, the interest rate on a euro account in Europe is 1%, and the expected appreciation of the euro over the year relative to the dollar is 2%. Which investment is better:
   a) dollar account
   b) euro account
   c) they are equivalent
   d) not enough information

12) Which property is violated in the problem in the question above:
   a) uncovered interest rate parity
   b) real interest rate parity
   c) absolute purchasing power parity
   d) relative purchasing power parity

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**Problem 1: The Asset Approach and Exchange Rate Overshooting** (35 points)

Use the overshooting model to analyze the exchange rate between the European euro and the British pound (E\textsubscript{Euro}/pd). Suppose that there is a permanent rise in European nominal money supply. (Assume prices are sticky in the short run and flexible in the long run.)

a) (15 points) Illustrate in graphs of the European money market and the foreign exchange market how this change affects the money and foreign exchange markets. Label your initial equilibrium point A, label the short-run equilibrium point B, and your long-run equilibrium point C. (You can put short run and long run on the same graphs.) Label all axes, and indicate curve shifts with arrows. Explain the reason for each curve shift briefly.
b) (9 points) Using a set of time diagrams (time on the bottom axis), illustrate how the following variables change over time: exchange rate ($E_{\text{euro/pd}}$), European nominal interest rate, and the equilibrium value of European real money demand. Be sure to indicate clearly the relationships between the initial, short run, and long run values.

c) (6 points) Explain: Does purchasing power parity hold in your story above? Does uncovered interest rate parity hold?

d) (5 points) Suppose Europe had capital controls in the foreign exchange market. Discuss briefly how this would affect your analysis in part (a) above.
Problem 2: Monetary Approach and Fixed Exchange Rates (18 points)

a) (6 points) Write the fundamental equation for the monetary approach to exchange rate
determination for the exchange rate between the Iraqi dinar and the U.S. dollar (dinar/$) (either in levels or rates of change).

b) (6 points) Some countries peg their exchange rate to another country with a stable aggregate
price level (low inflation) as a way of guaranteeing low inflation in their own country. Use
the equation above to explain why a fixed exchange rate should have this benefit for Iraq
when it fixes its exchange rate to the dollar.

c) (6 points) Suppose the U.S. has a growth rate in output that is higher than in Iraq. What does
the equation above imply about the necessary monetary policy (money growth rate) in Iraq
relative to that in the U.S under Iraq’s fixed exchange rate?
Problem 3: Interest Rate and Purchasing Power Parities  (22 points total)

Assume the following three conditions hold: uncovered interest rate parity (no risk premium), covered interest rate parity, and relative purchasing power parity. Suppose the absolute version of purchasing power parity does not hold.

And suppose you read the following information in the newspaper:
- The current nominal interest rate for a 1-year yen deposit in a Japanese bank is 1% (0.01), and it is 5% (0.05) for a won deposit in a Korean bank.
- The current spot exchange rate between the Japanese yen and Korean won (yen/won) is 100.

For each of the following, compute a value using the information above, or state if there is not enough information given above to do this. Show your work in each case and name which of the three parity condition or conditions listed above you are using.

a)  (5 points) The expected exchange rate (yen/won) for one year from now.

b)  (5 points) The forward exchange rate for one year from now.

c)  (5 points) Inflation differential over the next year (inflation rate in Japan minus that in Korea).

d)  (7 points. This is a challenging one.) Suppose now that absolute and relative PPP both fail. Let us define the real exchange rate as \( q_{Japan/Korea} = E_{yen/won} \* \frac{P_{Korea}}{P_{Japan}} \) (where the real exchange rate is in units of how many Japanese goods baskets it takes to equal one Korean goods basket). Using this definition, derive an equation that shows how the real interest rate in Japan relates to the real interest rate in Korea, where we do not assume that the real exchange rate is constant or equal to 1. (Hint: begin by putting the definition above in
percent change form, like we did in class for relative PPP.) Interpret the economics logic of
this equation in a case where due to Korean growth, the real exchange rate defined above is
rising over time. Partial credit will be given.

(5/8/12)