Multiple Choice: (2 points each, 30 point total) Choose the best answer. Write answer on scantron.

MC#1) The U.S. current account deficit implies which of the following (assume a 0 capital account):
   a) U.S. external wealth is falling
   b) surplus in the financial account
   c) national saving is less than overall investment
   d) all of the above

MC#2) According to the “twin deficits” hypothesis, a new government stimulus package next year should _____ the U.S. government budget deficit, and ______ the U.S. current account deficit.
   a) reduce, reduce
   b) magnify, magnify
   c) reduce, magnify
   d) magnify, reduce

MC#3) According to the “Asset Approach” to exchange rates, which of the following could cause a rise in the $/yen exchange rate?
   a) a rise in U.S. interest rates
   b) a fall in Japanese interest rates
   c) a rise in the expected future exchange rate
   d) all of the above

MC#4) Which of the following was not true about the Gold Standard system of fixed exchange rates?
   a) It was prevalent a hundred years ago.
   b) It prevented international financial integration and globalization.
   c) It made internal balance difficult to maintain.
   d) Central banks held reserves in gold.

MC#5) According to the “Monetary Approach” to exchange rates, which of the following could explain the depreciation of the dollar relative to the euro over the last decade:
   a) rise in European money demand
   b) rise in U.S. income
   c) fall in U.S. money supply
   d) all of the above

MC#6) The massive exchange rate devaluation during the Argentina crisis in 2001-2…
   a) Raised output because it allowed interest rates to fall.
   b) Lowered output because it disrupted financial markets.
   c) Raised output because it lowered Argentina’s national debt.
   d) Lowered output because it made Argentina’s exports cheaper.

MC#7) Which of the following is a benefit of financial globalization?
   a) Large international debts
   b) Current account balance
   c) Consumption smoothing
   d) Capital controls
MC#8) Which of the following would suggest that Poland should not join the European Monetary Union?
   a) Poland is growing fast currently while the rest of Europe is in recession.
   b) Poland trades a lot with EMU countries.
   c) Many Poles work in Western Europe
   d) Poland receives financial assistance from Western European countries

MC#9) A good thing about a currency board is that it:
   a) can use expansionary monetary policy in a recession.
   b) controls the money supply by buying and selling domestic government bonds.
   c) prevents speculative attacks by using capital controls.
   d) will not run out of reserves in a currency crisis.

MC#10) According to the Keynesian IS-LM model, why is fiscal austerity bad during a recession, as currently in many European countries:
   a) It raises interest rates.
   b) It worsens trade deficits.
   c) It lowers overall demand.
   d) All of the above

MC#11) According to the “trilemma” theory, if Denmark wants to retain financial market openness and fixed exchange rates, then it must give up:
   a) monetary policy independence
   b) fiscal policy effectiveness
   c) both (a) and (b)
   d) neither of (a) nor (b)

MC#12) When the U.S. central bank sells some of its holdings of U.S. Treasury bonds to a Canadian financial firm, how does this enter the U.S. Balance of payments statistics?
   a) debit in the financial account, credit in the current account
   b) credit in the financial account, debit in the current account
   c) credit in the financial account, debit in the financial account
   d) credit in the financial account, credit in the current account

MC#13) Under the Bretton Woods system:
   a) exchange rates were volatile.
   b) the dollar was the main reserve currency.
   c) countries all pegged their currencies to gold.
   d) all of the above.

MC#14) If a country lowers its trade balance $100 mil this year to smooth consumption during a temporary fall in output, what must it do to the present value of the sum of all future trade balances, in order to satisfy the intertemporal budget constraint (assuming a positive interest rate on debt)?
   a) raise $100 mil.
   b) raise less than $100 mil.
   c) raise more than $100 mil.
   d) not enough information to know

MC#15) Which of the following statements is false about the IMF (International Monetary Fund)?
   a) It lends currencies to a country with a temporary current account deficit.
   b) It was established after WWII as part of the Bretton Woods system of fixed exchange rates.
   c) It ceased to exist after the collapse of the Bretton Woods system in 1973.
   d) It can require government austerity if a country borrows more than its quota.

Question 1: Parity Conditions (12 points total, 2 points each item) Answer on scantron.
Suppose you are a currency speculator trying to forecast what will happen to the value of the Mexican peso over the next year. Suppose all of our usual theories hold: uncovered interest rate parity (UIP), covered interest rate parity (CIP), real interest rate parity RIP), absolute purchasing power parity (PPP) and relative purchasing power parity (RPPP), as well as the Fisher effect for nominal interest rates). For each of the separate cases below, use the information in that case to compute the percentage expected appreciation of the peso relative to the dollar \((E_{\text{peso}} - E_{\text{peso}})/ E_{\text{peso}}\). State the name of which one parity condition you are using. Each case is to be solved separately -- information from one case does not apply to the others.

a) The nominal interest rate for a 1-year peso deposit is 3%, and that for a dollar deposit is 2%.

b) Expected inflation over the next year is expected to be 5% in the U.S. and 2% in Mexico.

c) The forward premium (percentage by which the forward rate is higher than the current spot rate in $/peso) is 2%.

**Question 2: Monetary Approach** (12 points total; 2 points each). Answer on scantron.

Suppose you expect Japanese output growth to be a total of 15% lower over the next ten years than Korean output growth, and you expect Japanese money supply growth to be 15% higher than Korea. According to the monetary approach (in percent change form), the exchange rate (Japanese yen per Korean won) should:

- a) rise 30%  
- b) rise 15%  
- c) not change  
- d) fall 15%  
- e) fall 30%

Inflation over the total 10 years in Japan should be _____ compared to Korea

- a) 30% higher  
- b) 15% higher  
- c) the same  
- d) 15% lower  
- e) 30% lower

Suppose Korea fixes its exchange rate to the Japanese yen. In this case, if Japanese output growth were 15% lower than in Korea, then the money supply growth rate in Korea would need to be _____ compared to Japan

- a) 30% higher  
- b) 15% higher  
- c) the same  
- d) 15% lower  
- e) 30% lower

Inflation in Japan should be ______ compared to Korea

- a) 30% higher  
- b) 15% higher  
- c) the same  
- d) 15% lower  
- e) 30% lower

What theory are you assuming must hold in order to make these predictions (abbreviations defined in question 1 above):

- a) UIP  
- b) CIP  
- c) RIP  
- d) RPPP
MC#27) The monetary approach to exchange rates holds best
   a) in the short run
   b) when prices are flexible.
   c) when the twin deficits hypothesis holds.
   d) under capital controls.
   e) when pigs fly (or when the sun rises in the west).

Question 3: IS-LM model in Open Economy: (28 points, 1 point each MC item)

Compare the ability of fixed and flexible exchange rates to deal with shocks. Use the IS-LM model and make the usual assumptions: Consumption is just a function of disposable income with MPC<1; investment is just a function of the interest rate; for simplicity assume that the trade balance is only a function of the real exchange rate and not of income levels.

Write MC answers on scantron. Draw a graph for part (a); graphs for other parts will not be graded.

a) (4 points for graph) First, suppose a country with a flexible exchange rate regime is hit by a shock raising money demand (a rise in money demand for any given interest rate or output level, such as when people suddenly lose confidence in banks). Use the IS-LM graph to show the short-run effects of this temporary shock. (Label the starting equilibrium point A, and the short run equilibrium point B. Label all curves and axes, and indicate any curve shift with an arrow.)

What will be the effect of the shock on the short run values of the following variables.

<table>
<thead>
<tr>
<th>MC#28) output</th>
<th>a) rise</th>
<th>b) fall</th>
<th>c) no change</th>
<th>d) ambiguous</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC#29) interest rate</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
<tr>
<td>MC#30) exch. rate (home currency/foreign)</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
<tr>
<td>MC#31) investment</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
<tr>
<td>MC#32) trade balance</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
<tr>
<td>MC#33) consumption</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
<tr>
<td>MC#34) private saving</td>
<td>a) rise</td>
<td>b) fall</td>
<td>c) no change</td>
<td>d) ambiguous</td>
</tr>
</tbody>
</table>

b) Now instead suppose the country fixed its exchange rate to another currency. What will be the effect of the money demand shock on the short run values of the following variables.

<table>
<thead>
<tr>
<th>MC#35) output</th>
<th>a) rise</th>
<th>b) fall</th>
<th>c) no change</th>
<th>d) ambiguous</th>
</tr>
</thead>
</table>
c) Now suppose instead that a different shock is hitting the economy: the country must raise taxes to help balance its budget. (For simplicity, assume no shock to money demand now). Under a flexible exchange rate what will be the effect of the tax shock on the short run values of the following variables:

MC#38) output: a) rise  b) fall  c) no change  d) ambiguous
MC#39) interest rate: a) rise  b) fall  c) no change  d) ambiguous
MC#40) exch. rate (home currency/foreign) a) rise  b) fall  c) no change  d) ambiguous
MC#41) trade balance: a) rise  b) fall  c) no change  d) ambiguous
MC#42) investment: a) rise  b) fall  c) no change  d) ambiguous

d) Finally, assume the country has a fixed exchange rate. What will be the effect of the tax shock on the short run values of the following variables:

MC#43) output: a) rise  b) fall  c) no change  d) ambiguous
MC#44) interest rate: a) rise  b) fall  c) no change  d) ambiguous
MC#45) money supply: a) rise  b) fall  c) no change  d) ambiguous
MC#46) investment: a) rise  b) fall  c) no change  d) ambiguous
MC#47) trade balance: a) rise  b) fall  c) no change  d) ambiguous

e) (4 points) In a few sentences, compare the four cases above, and draw a conclusion regarding the ability of a fixed exchange rate regime to respond to shocks hitting the money market versus the goods market.
**Question 4: Explaining Recessions** (12 points total, 2 points each item) Answer on scantron.

Use the IS-LM model of the short-run to identify which of the exogenous shocks listed below could be causing the recession consistent with the given facts. Each case is completely separate from the others.

The choices for each case are the same and are as follows:

a) exogenous shift in tastes away from home goods toward foreign goods (fall in marginal propensity to consume home goods)

b) exogenous fall in real money demand

c) cut in government spending

d) cut in money supply

e) none of the above

There is only one correct answer for each case. Make the usual IS-LM assumption (as listed in the introduction to question 3 above), and assume a flexible exchange rate regime unless told otherwise. Write answer on scantron.

MC#48) Uganda is experiencing a recession where the trade balance is falling even though the currency is depreciating.

MC#49) Colombia is experiencing a recession where the value of its currency is appreciating.

MC#50) Australia is experiencing a recession where the trade balance is improving.

MC#51) Mexico is experiencing a recession where both investment and the trade balance are falling.

MC#52) India is experiencing a recession where the interest rate is rising while the value of the currency is depreciating.

MC#53) Malaysia is experiencing a recession where total national saving is rising.

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**Question 5: Overshooting** (20 points)

Suppose there is a permanent fall in the U.S. money demand function (lower money demand for any given interest rate). Discuss how this can give rise to overshooting in the exchange rate between the dollar and the British pound ($/pd), as requested below. (Make the usual assumptions for this model unless told otherwise: prices are sticky in the short run and flexible in the long run, and that uncovered interest rate parity holds, and money demand is a function of the interest rate alone and not affected by income.)

a) (10 points) Illustrate in graphs of the U.S. money market and the foreign exchange market how this shock 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.

(write on next page)
b) (6 points) Using two time series diagrams (time on the bottom axis), illustrate how the nominal exchange rate \( (E_{X/pd}) \) and real exchange rate \( (E_{X/pd} \frac{P_{UK}}{P_{US}}) \) change over time. Be sure to indicate clearly in your graph the relative levels before the shock, at the time of the shock, and in the long run. Does PPP hold in your graphs in the short run? How about the long run? Explain how you know.
c) (4 points) Is there an arbitrage opportunity here to make a profit in the goods market? If no, explain why not. If yes, explain the sequence of purchases and sales of goods, and the currency exchanges that you could use to make a profit off of this set of events. Assume you have $100 to start off, and assume there are no trading or transportation costs of any kind.

Essay/short answer: Currency Crises  (14 points total)

Using the foreign exchange market graph and a paragraph, explain why an expectation of a future Greek exit from the euro is contributing to high interest rates in Greece (assuming bank accounts are expected to be converted to a new currency, drachmas). Can you think of an additional reason why the interest rate on Greek government bonds is so high right now?
One of the benefits of a currency union is that it is supposed to be immune from speculative attacks. Explain in several sentences why this might not be true, and how the experience of the UK in the EMS crisis of 1992 is a warning to Greece.