Student ID _____ Name _____

Final Exam: Economics 160B, Winter 2008: Version A

You will have 120 minutes to complete this exam. It is divided into 100 points, and has 6 pages.

Multiple Choice: (2 points each, 20 point total) Choose the best answer.

Please record your multiple choice answers here:
1____ 2____ 3____ 4____ 5____ 6____ 7____ 8____ 9____ 10____

1) According to the monetary approach to exchange rates, if Nigeria has higher inflation than Kenya, then the relative value of the Nigerian currency should:
   a) appreciate
   b) depreciate
   c) not change
   d) not enough information

2) If the U.K. has lower money growth and lower output growth than the euro area, then the monetary approach to exchange rates says the value of the British pound should
   a) appreciate
   b) depreciate
   c) not change
   d) not enough information

3) According to the national income accounting identity, which of the following potentially can cause a current account deficit?
   a) a rise in private saving
   b) a rise in government saving
   c) a rise in investment
   d) none of the above

4) When the central bank of China purchases dollar assets from the U.S. in order to keep low the value of the yuan, this enters the U.S. balance of payments accounts as a:
   a) credit in the current account.
   b) debit in the current account.
   c) credit in the financial account.
   d) debit in the financial account.

5) Which of the following is <u>not</u> a benefit of financial globalization?
   a) Current account balance
   b) Efficient investment
   c) Consumption smooth
   d) Risk sharing

6) According to the trilemma, 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)

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

8) If a country lowers its trade balance $100 mil this year to smooth consumption over a temporary shock to 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?
   a) raise less than $100 mil.
   b) raise $100 mil.
   c) raise more than $100 mil.
   d) not enough information to know

9) Which of the following would suggest Denmark should not join the European Monetary Union?
   a) Denmark trades a lot with the rest of Europe.
   b) Danish workers do not relocate to other countries.
   c) The Danish economy tends to have recessions at the same time as France and Germany.
   d) all of the above

10) Which of the following can cause a currency crisis:
   a) a shift in investor expectations
   b) external imbalance
   c) contagion
   d) all of the above

<u>Question 1:</u> IS-LM Model (23 points)

It appears that the U.S. is heading into a recession, in part due to the bursting of the housing bubble, which is causing a dramatic decline in housing investment expenditure. Let's use our analytical tools of the open macro-economy in the short run to analyze this situation.

a) (9 pts) Use the IS-LM and foreign exchange market graphs to show the short-run effects of this temporary shock lowering investment demand in the U.S. (Assume for now there is no policy response to the shock. Assume the U.S. has flexible exchange rates. For simplicity assume that the trade balance is only a function of the real exchange rate and not of income levels.) Label axes and curves, indicate any curve shifts with arrows, indicate the initial equilibrium in each graph as point A, and the short run equilibrium after the shock as point B.

State what happens to the following variables (rise, fall, no change, ambiguous).
- U.S. output_____
- U.S. interest rate: _____
- exchange rate ($/foreign): _____
- U.S. trade balance: _____

b) (6 pts) The U.S. has been trying to combat the recession by raising money supply. On your graph above, illustrate a monetary policy that restores output to its original level before the recession. Label the new equilibrium point C.

How does the policy affect the response of the following variables to the shock, relative to what you said in part (a) (that is, moves more, moves less, moves the same, moves the opposite direction)
- U.S. interest rate: _____
- exchange rate ($/foreign): _____
- U.S. trade balance:_____

c) (8 pts) One of the (minor) presidential candidates has said he would try to put the U.S. back on the gold standard system of fixed exchange rates if he is elected. Redraw the IS-LM and foreign exchange graphs from part (a) once again below, but show the effects of the shock under a fixed exchange rate. Again label axes and curves, indicate any curve shifts with arrows, and mark the initial and short run equilibria points as A and B, respectively.

How does the fixed exchange rate affect the response of the following variables relative to what you said in part (a) (that is, moves more, moves less, moves the same, moves the opposite direction)
- U.S. output_____

- U.S. interest rate: _____
- U.S. trade balance:_____

Question 2: Parity Conditions (15 points total, 3 points each part)

Suppose that the following conditions all hold: the Fisher relation, uncovered, covered and real interest rate parities, relative and absolute purchasing power parities. And suppose you have the following information:

- The nominal interest rate on 1-year U.S. dollar deposits is 5% (0.05), and the (expected ex-ante) real interest rate is 1% (0.01).
- Inflation in Japan was 3% last year and is expected to be 2% over the coming year.
- The forward exchange rate for transactions one year from now is 98 yen per dollar.

For each of the following, compute a value using the information above, or state that there is not enough information. Show your work in each case and name which parity conditions you are using.

a) The real interest rate in Japan.

b) The expected inflation rate in the U.S. for the coming year.

c) The expected percentage appreciation or depreciation in the value of the yen relative to the dollar over the coming year. (State if the yen is appreciating in value or depreciating).

d) The current spot exchange rate (yen/dollar).

e) Please explain in a few sentences the logic behind the real interest rate parity condition. Would we expect it to hold if relative PPP failed to hold?

Question 3: Overshooting (19 points)

Suppose a shock implying a permanent rise in the Mexican money demand (a rise in the real quantity of money demanded by some amount for any given interest rate). Discuss how this can give rise to overshooting in the exchange rate between the Mexican peso and the Canadian dollar (peso/CD), as requested below. (Make the usual assumptions: prices are sticky in the short run and flexible in the long run, and that uncovered interest rate parity holds. Assume for simplicity, unless told otherwise, the usual case in this model, where money demand is a function of the interest rate alone and not affected by income.)

a) (12 points) Illustrate this shock in graphs of the Mexican money market and the foreign exchange market. Label your initial equilibrium point A, labor 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) (4 points) Using two graphs, illustrate how the exchange rate ($E_{peso/CD}$) and Mexican interest rate change over time.

c) (3 points) Discuss in a couple of sentences how the response of the exchange rate and interest rate would be different if people's decisions about how much money to hold did not depend as strongly on the interest rate as what you assumed above.

Question 4: IS-LM (8 points)

Suppose an open economy is in a recession, where its currency is depreciating and where its trade balance is improving. Which of the following shocks could be the cause if this country's recession? For each shock that is not possible, explain in a sentence or two why not; if yes, simply state so.

a) rise in money demand

b) rise in taxes

c) fall in money supply

d) taste shock raising foreign demand for this country's exports

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Question 5: Essay: Currency Crises (15 points. Answer the following questions in a few paragraphs. Please write clearly.)

Contrast the currency crisis in Asia in 1997 with that in the European Monetary System (EMS) earlier in that decade in a couple paragraphs. Include in your discussion four distinct and significant differences.

In the decade since the Asian crisis, several Asian countries have worked to accumulate very large holdings of foreign currency reserves. Using the EMS or Argentinian experience as evidence, discuss in one paragraph how successful the new Asian strategy is likely to be in insuring these countries against future currency crises, noting strengths and weaknesses of the strategy.