Instruction: Write your name and student ID number on this exam and your blue book and your scantron. Be sure to answer all multiple choice question on your scantron, answers to multiple choice questions written on this test will not be counted. Answer all short answer questions in your blue book. When you are done be sure to turn in your exam, your blue book and your scantron. Good luck!

Multiple Choice (total 50 points, 25 problems worth 2 points each)

1. In equilibrium, all traded goods sell at the same price internationally because of:
   A) government direction.
   B) arbitrage.
   C) markets in which buyers and sellers do not interact.
   D) the fact that the underlying value is the same everywhere.

2. The real exchange rate between two currencies tells us:
   A) changes in the exchange rate over time.
   B) how many units of one currency can be purchased with one unit of the home currency.
   C) how much in terms of goods and services the home currency will buy in the foreign nation compared to the home nation.
   D) how much depreciation or appreciation has occurred in the home exchange rate.

3. If fewer home goods are required to buy the same amount of foreign goods, then we say that foreign currency has experienced:
   A) a nominal appreciation.
   B) a nominal depreciation.
   C) a real appreciation.
   D) a real depreciation.

4. Absolute PPP and relative PPP differ in what way?
   A) Absolute PPP always holds but relative PPP may not.
   B) Relative PPP may hold even when absolute PPP does not.
   C) Relative and absolute PPP always hold.
   D) Absolute PPP relates to changes in inflation and exchange rates, whereas relative PPP relates to their levels.
5. Whenever U.S. government spending increases, thereby increasing the demand for real balances and the rate of interest, the currency will appreciate and there is a potential for:
   A) overshooting.
   B) crowding out.
   C) a Republican backlash.
   D) recession.

6. Assuming sticky prices and given expectations of future exchange rates, what is the short-run effect on the exchange rate of the U.S. dollar (purchasing euros) and on domestic and foreign rates of return if there is a temporary increase in the quantity of euros?
   A) Rates of return on domestic and foreign assets diverge as the dollar appreciates.
   B) Domestic and foreign rates of return both fall as the dollar depreciates.
   C) Domestic and foreign rates of return converge as depreciation of the euro raises returns for U.S. investors who purchase euro-based assets.
   D) Rates of return on dollar assets fall, causing investors to switch into euro assets and, therefore, the U.S. dollar depreciates against the euro.

7. When the total value of foreign assets owned by the home nation is less than the total value of home assets owned by foreigners, we say a nation is:
   A) a net creditor to the rest of the world (ROW).
   B) a net debtor to the rest of the world (ROW).
   C) close to financial collapse.
   D) under pressure to get help from the IMF.

8. It has been shown that although investors could lower volatility and earn a higher average return on a diversified portfolio:
   A) there seems to be a home bias factor, which reveals that investors favor domestic investments.
   B) there are downside risks not recognized by the market.
   C) most governments limit international investment.
   D) investors prefer focusing on overseas investments.

9. Whenever economic shocks are asymmetric, and affect only one among the nations who are mutual investors, asset diversification:
   A) will have substantial benefits in lessening the shocks and smoothing consumption.
   B) will have no measurable benefits in lessening shocks.
   C) will probably backfire as one nation gains while the other loses.
   D) creates a tense atmosphere in which profits take precedence over human welfare.
10. The production function model showed that capital flows to poorer regions, because the marginal product of capital is higher in the poorer regions. Robert Lucas's paper showed that that was not true. The reason was that:
   A) investors were forced to abandon higher returns in poorer countries.
   B) it was assumed that production functions were the same in all countries.
   C) it was assumed that production functions were different for rich and poor countries.
   D) rich countries offered higher interest rates.

11. If the trade surplus has fallen, which of the following is a possible explanation?
   A) The real exchange rate rose.
   B) Foreign income fell.
   C) Domestic income fell.
   D) The foreign price level rose.

12. The time gap between a nation's decision to implement a corrective economic policy and the actual results of the policy is known as the:
   A) inside lag.
   B) inside lapse.
   C) outside lag.
   D) outside lapse.

13. A key benefit for nations in a politically integrated currency union such as the United States is the existence of fiscal federalism. What is the status of fiscal federalism in the Eurozone?
   A) It is almost nonexistent because few fiscal transfers take place.
   B) It is thriving and encompasses many aspects of the economy.
   C) Most believe it currently lags the United States, but the situation is very fluid and will change soon.
   D) Fiscal federalism is a concept that has relevance only in the United States because each Eurozone nation is completely independent.

14. Reunification of East and West Germany created which sequence of events?
   i. an increase in German rates of interest
   ii. a boom in German output and a shift to the right of the German IS curve
   iii. large reunification costs financed by increased government spending
   iv. an increase in rates of interest in ERM nations
   A) iv, i, iii, i
   B) iii, ii, i, iv
   C) i, ii, iii, iv
   D) iv, iii, ii, i
15. If there is a greater degree of economic integration between markets in the home country and the base country:
   A) the home country will benefit to a greater degree by fixing its exchange rate with the base country.
   B) efficiency will be reduced with fixed exchange rates.
   C) flexible exchange rates will result in GDP stability.
   D) the volume of transactions will be too low to justify an elaborate exchange rate policy.

16. Asymmetric shocks pose a problem for nations linked by fixed exchange rates to a base currency. In general:
   A) the home nation always has a better outcome than its foreign trading partner.
   B) both nations share a common currency and so will experience equal results.
   C) when the base currency nation takes any action to counteract the shock, it forces its exchange rate partner to do the same to maintain its peg.
   D) both nations only get half the benefit of any economic policy.

17. Adopting a fixed exchange rate promotes trade if the regime is:
   A) semi-floating.
   B) indirectly pegged.
   C) directly floating.
   D) directly pegged.

18. Why would making a permanent change in a monetary aggregate have an effect on exchange rates in a nation?
   A) Permanent rates are mostly set by short-run fluctuations in the rate of interest caused by monetary instability.
   B) A permanent change is never quite as permanent as policy makers claim—people form expectations on past performance rather than declarations.
   C) The central bank is always aware of the effect on exchange rates as it formulates policy, so it is very careful to make small permanent changes that have no effect on exchange rates.
   D) Traders form expectations of future exchange rates based on the anticipated long-run effects of monetary operations.

19. Whenever a nation has substantial external debts and assets denominated in foreign currency:
   A) it is easier to manage, since changes in value are often offsetting.
   B) there can be large and destabilizing wealth effects.
   C) its interest payments on the debt will be matched by interest earnings on the assets.
   D) the risk of default becomes very large.
20. Paul Krugman has analyzed fixed currency pegs and the likely cause for them to break. His model is one in which the central bank is under political control, which results in:
   A) fiscal dominance by the elected government whereby the central bank must print money to fund government deficits.
   B) authority of the central bank to set rules for proper monetary management.
   C) the establishment of a currency board to manage the pegged exchange rate.
   D) the ability to control the money supply and interest rates to maintain the peg.

21. What would happen to a low-income nation if its liability currency appreciated against its own currency?
   A) Its external wealth would rise because low-income nations have more assets than liabilities.
   B) Its external wealth would not be affected because currency values are fixed.
   C) Its external wealth would fall because low-income nations tend to have more external liabilities denominated in other currencies.
   D) Its external wealth would rise because of the ability of its monetary authority to print more money.

22. Which of the following did NOT lead to the collapse of Bretton Woods?
   A) ample supplies of gold
   B) collapse of capital controls
   C) the Vietnam War
   D) unwillingness to peg to the U.S. dollar

23. When a nation is maintaining an exchange rate peg, typically its money supply is backed by:
   A) gold.
   B) nothing.
   C) domestic bonds and foreign exchange assets purchased with the national currency.
   D) domestic credit only.

24. A ratio indicating how safe the peg is from breaking is calculated by _______ and is called ________.
   A) foreign reserves as a percent of GDP; the safety margin
   B) foreign reserves as a percent of the total money supply; the backing ratio
   C) money demand as a percent of money supply; the financial adequacy quotient
   D) foreign reserves as a percent of domestic credit; the marginal propensity to break

25. Qualifying for admission to the Eurozone requires a nation to:
   A) petition for membership with the European parliament.
   B) demonstrate a commitment to democratic principles and take an antiterrorist stance.
   C) peg its exchange rates to the euro and demonstrate fiscal responsibility for a time period.
   D) join the IMF and the UN, and be recommended by other members.
SHORT ANSWER QUESTIONS (50 points)

Question 1: Original Sin (8 points)
“Original sin” sometimes refers to a nation's inability to borrow in its own currency, and therefore is forced to borrow and repay internationally in other currencies, why might this be the case? What problems flow from this inability?

Question 2: Reserve Accumulation (8 points)
A recent phenomenon is the tendency of emerging market economies to accumulate excess foreign currency reserves so that their backing ratios exceed 100%. Briefly discuss how this is explained by (a) fear of sudden stops in emerging markets and (b) China’s peg to the U.S. dollar.

Question 3: Currency Crises and the Second Generation Model (16 points)
In 1992 both Britain and France were pegged to the German mark. Both nations were forced to defend their peg by using contractionary monetary policy suffering a fall in GDP. Despite the fact that France remained committed to a fixed exchange rate pegged to the German mark while Britain abandoned here peg. Assume that both France and Great Britain had the same benefits to remaining in the ERM (denote this benefit as $b > 0$), also assume that both Britain and France start at the same level of income $Y_1 < Y$.

a) (8 points) Using the IS-LM and Foreign Exchange market graphs illustrate how the short run macroeconomic effects of this shock can be higher for Great Britain than for France as a result of investors’ expectations that Britain will not defend their peg. Be sure to label all axes and curves, indicate curve shifts with an arrow.

b) (8 points) Graph the costs and benefits of fixing under both credible and non-credible pegs. Indicate where Great Britain and France lie on this graph. Explain in no more than a few sentences how this model is consistent with multiple equilibria and how it relates to the concept of reflexivity.

Question 4: Overshooting (18 points)
Suppose there is a permanent rise in the U.S. money supply. Discuss how this can give rise to overshooting in the exchange rate between the dollar and the Japanese yen ($$/yen), 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) (6 points) Illustrate in graphs of the U.S. money market and the foreign exchange market how this policy 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) (6 points) Using two time series diagrams, illustrate how the exchange rate (E$/yen) and U.S. interest rate change over time.

c) (6 points) Given our study of the macroeconomy using the IS-LM model, we know that a rise in money supply can raise the level of output in an economy in the short run, and money demand can be affected by income. Discuss how this rise in output would affect the degree of exchange rate overshooting you found above and why? Discuss what things would change in your diagram in part (a) above. (This question is a bit tricky.)