Economics 103 — Spring 2003

International Monetary Relations

Problem Set 1

April 3, 2003

Due: **Tue, April 22, 9:30am**
Instructor: Marc-Andreas Muendler
E-mail: muendler@ucsd.edu

1 Commodity Trade and the Current Account

If imports from emerging economies were restricted, would this reduce the US current account deficit?

1.1 The current account, savings, investment and government budgets

Using the result that $S = S^P + S^G = I + CA$, show that $CA = S^P - I - (G - T)$. What does this imply for the effect of domestic savings, domestic investment and domestic government budget deficits on the current account?

1.2 Trade policy and the current account

Will import restrictions reduce the US current account deficit? How would higher US import barriers affect domestic savings, domestic investment and domestic government budget deficits?

2 An N-country World

Consider a world with N countries, each with its own currency. How many bilateral exchange rates are there? (You may work your way up from $n = 1, 2, ...$ to $n = N$.) How many current accounts can clear independently? So, how many independent currencies can there be? Do these insights help you explain features of the International Gold Standard, the Bretton Woods system, and maybe even today's monetary system?

3 Price-Specie-Flow Mechanism

Consider the International Gold Standard and assume that the price-specie mechanism described by Hume is at work. Suppose country D (donor) transfers income to country R (recipient). How is the balance of payments equilibrium restored afterwards?

4 Bretton Woods System

Long-run exchange rate flexibility was one of the intentions of the Bretton Woods system. Why did nominal exchange rates among the principal industrial countries hardly change until about 1970? Could they indefinitely remain unchanged in the gold-dollar system that had evolved? Discuss briefly.

5 Uncovered Interest Parity

State the uncovered interest parity condition.

1. Why is the condition called uncovered? Does it have to hold? What assumptions are needed?

2. The USD interest rate and the EUR interest rate are both 5.0%. What is the relationship between the current equilibrium USD/EUR exchange rate and its expected future level? Assume the expected future USD/EUR exchange rate remains constant at USD 1.00 per EUR. But the EUR interest rates doubles to 10.0%. What is the new current equilibrium USD/EUR exchange rate?

6 Money Supply and the Exchange Rate

The Federal Reserve System increases aggregate money supply permanently. Use diagrams showing the exchange rate, the expected dollar return and money holdings to analyze the *short-term* and the *long-term* effects on the USD interest rate, the US price level and the nominal exchange rate.

7 Output Fluctuations and the Exchange Rate

Domestic real GNP increases temporarily but expectations of future exchange rates are unchanged. Use diagrams showing the exchange rate, the expected dollar return and money holdings to analyze the *short-term* and the *long-term* effects on the USD interest rate, the US price level and the nominal exchange rate.

8 Short-term Output Effects

Suppose that a *permanent* increase in money supply boosts domestic real GNP *temporarily*. What effect does this have on aggregate real money demand in the short term? How does the exchange rate respond at the moment of the increase in money supply? Use diagrams showing the exchange rate, the expected dollar return and money holdings to analyze the possibility of exchange rate undershooting. Do you consider undershooting realistic?