Homework 3
Principles of Macroeconomics: ECO 212
Due: Thursday, March 23, 2006

Question 1.

For each of the following countries:

a. Calculate the cost of a US Big Mac in terms of foreign Big Macs.

b. Calculate the cost *in dollars* of a McDonald's Big Mac. For which country are Big Mac's most expensive? Which country is the cheapest for Americans to visit, assuming other goods are priced similar to Big Mac's?

c. Is the dollar over or under valued relative to each currency assuming Big Macs are identical across the world?

d. Assuming purchasing power parity holds, what would you expect to be the local price of Big Macs in each country?

e. A recent claim by some politicians is that the Chinese government is reducing the value of it's currency, so that Chinese exports are cheaper and more competitive in the US. Does the Big Mac index support this claim?

Country	Cost of 1 Big Mac	E
Argentina	4.77 Pesos	3.08
Brazil	5.92 Real	2.16
Euro Area	2.95 Euro	0.84
Denmark	28.11 Krones	6.26
South Korea	2,542.85 Won	993.3
China	10.47 Yuan	8.05
United States	$3.15	1

Table 1: Cost of Big Macs

Question 2

Suppose we have the following information about the US.

- Savings: $750 Billion.
- Investment spending: $800 Billion.
- Imports: $75 Billion.
- Purchase of foreign assets: $25 Billion.

a. Calculate the net foreign investment, capital inflows, and capital outflows.

b. Calculate net exports, exports, and imports.

c. Is the US running a trade deficit, a trade surplus, or balanced trade? If trade is not balanced, whose goods are traded for whose assets?

Question 3.

Suppose the US experiences some deflation. Show the effect graphically in the US foreign exchange market. What happens to the value of the dollar relative to foreign currency?

Question 4.

Carefully explain the "catch-up" hypothesis. Give two examples where the catch-up hypothesis seems to hold in the data.

Question 5.

Suppose we have:

Year	Ave. Growth: capital per worker	Ave. Growth: RGDP per worker
1981-1990	2%	2%
1991-2000	3%	4%

Table 2: US growth experience

Calculate the average rate of technical change for each period. How much of the increase in productivity (output per worker) in the 1990's is due to technical change?