

International Finance
City University, Spring 2007
Problem set 1

Part 1): National income accounting

Ex 1: A French tourist pays 20 pounds for lunch in central London. The British restaurant owner deposits the funds on its bank account in London, and the bank credits the account by the amount of the deposit.

How is this transaction recorded in the UK balance of payments accounts? And in the French balance of payment accounts?

Now, answer the same questions, but assuming that the British restaurant owner uses the 20 pounds to buy a bottle of wine made in France.

Ex 2: Suppose an economy's national accounts are $Y = \text{GNP} = 100$, $C = 70$, $I = 40$, $G = 20$, and $\text{EX} = 20$ where GDP is gross domestic product, C is consumption, I is investment, G is government spending, NFP is net factor payments, and EX is exports.

Using the national income identity find the value of imports (IM). What is the current account balance? What is the level of national savings? Is the country a net lender or a net borrower on international financial markets?

Part 2: Exchange rates

At the moment the pound/dollar exchange rate is about £0.5/\$1. Suppose that ten years from now, it becomes £0.8/\$1. Has the pound appreciated or depreciated?

Ten years from now, observing this change in the nominal exchange rate, a friend tells you that it has become less expensive for an American to visit the UK.

Assume that over this 10 year period, inflation (percentage increase in the price level) in the UK was 100% and only 25% in the US.

Describe a concrete example to show your friend that he's wrong. (for example, compare the price of a cup of coffee in the US and the UK at both dates)

Part 3: Government policies and the trade balance.

In the first lecture, we used a model of a small open economy in the long run. Recall its main features:

The output Y is fixed.

Consumption $C = c(Y-T)$ (it is a linear and increasing function of disposable income)

Investment is negatively related to the real interest rate r : $I(r)$

There is perfect capital mobility: $r = r^*$, where r^* is the world interest rate.

1) Denoting exports by EX and imports by IM, write the national accounting identity for this open economy. Then, using the above assumptions, show that net exports $\text{NX} = S - I(r^*)$

2) On a graph with r on the vertical axis and S and I on the horizontal axis, show how you can see the trade balance.

3) Assume r^* is below what the real interest rate would be if the economy were closed (i.e, what it would be at $S = I$). Is the country running a trade surplus or a trade deficit?

4) Suppose that the country starts with a trade balance, and the government decides to cut taxes. How does this policy affect the trade balance? Explain and show it on the graph. (Draw a new graph rather than use the previous one, it will be less messy)

Part 4: Government policy and the real exchange rate

Let ϵ be the real exchange rate between the US and Japan, quoted in yens per dollar. Then, net US exports NX are a decreasing function (make sure you understand why) of ϵ : $NX(\epsilon)$.

1) on a graph (from the US point of view) with the real exchange rate on the vertical axis, show how the equilibrium real exchange rate is determined. (hint: First, write the US national income identity)

2) Suppose the US government imposes restrictions on its imports from the Japan (for example, a ban on imported Japanese cars). Show the effect of this policy on the previous graph.