

## Homework Set Thirteen

1. (5%) Gold sells for \$300 an ounce (US). A good loaf of French bread sells for \$3. In West Endwell, a craftsman will sell you a gold necklace with 2 ounces of gold in it for 12,000 Umlats. It takes the craftsman 5 hours to make the necklace, and he expects to earn enough during that period to purchase five loaves of French bread, which currently sells for 600 Umlats a loaf. What is the exchange rate between Dollars and Umlauts?
  
2. (5%) East and West Bedrock are considering establishing a currency union. At the moment, each country has its own currency, whose value is set on international money markets by the laws of supply and demand. The two countries are remarkably similar, in fact so similar that while they both have flourishing international trade, they trade little with each other. Does it make sense for them to merge their currencies and establish a common currency? Why or why not?

3. (30%) For each part of this question, I want the answers in this table.  
Circle the correct answer.

Part	Y Curve	M Curve	Price :Level	Interest Rate
a)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
b)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
c)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
d)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
e)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
f)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
g)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
h)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
i)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
j)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
k)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
l)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
m)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
n)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
o)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
p)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
q)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
r)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
s)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?
t)	UR DL NC	UL DR NC	+ - NC ?	+ - NC ?

- a) Consider a country FIXED, with Y and M curves describing the price level and interest rate in year 1. FIXED has an open economy. It has a flexible exchange rate, and all of its GDP is in traded goods. Suppose that the government spends \$100 million on a monument, paying for it with a tax on all individuals, independent of how much they work. What happens to the Y curve? To the M curve? (Answers like shifts up and to the left, or something like that are appropriate). From the Y and M curves, what happens to the Price level? The interest rate? (Answers like increases, decreases, or uncertain are appropriate).

- b) Consider a country FIXED, with Y and M curves describing the price level and interest rate in year 1. FIXED has an open economy. It has a flexible exchange rate, and all of its GDP is in traded goods. Suppose that the government spends \$100 million on a monument, paying for it with a tax on how much people earned in both wage income and interest income last year, independent of how much they work. What happens to the Y curve? To the M curve? (Answers like shifts up and to the left, or something like that are appropriate). From the Y and M curves, what happens to the Price level? The interest rate? (Answers like increases, decreases, or uncertain are appropriate).
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curves, what happens to the Price level? The interest rate? (Answers like increases, decreases, or uncertain are appropriate).

- k) Consider a country OPEN, with Y and M curves describing the price level and interest rate in year 1. OPEN has an open economy. It uses the Euro, and all of its GDP is in traded goods. Suppose that the government spends \$100 million on a monument, paying for it with a tax on all individuals, independent of how much they work. What happens to the Y curve? To the M curve? (Answers like shifts up and to the left, or something like that are appropriate). From the Y and M curves, what happens to the Price level? The interest rate? (Answers like increases, decreases, or uncertain are appropriate).
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4. (60%) Lower Freestone, an idyllic Caribbean island, has a recently developed a thriving tourism industry. About half the tourists come from the United States, while the other half come from Germany. The hotels are owned by American Chains (Hilton, Marriott, etc.) While the native tongue is English, the German influx is so pronounced that signs "Wir Sprechen Deutsch" can be found throughout the island. There is a limit to the European influence; all of Freestone's imports come from the US. The hotels are well managed, with an aggressive program of setting hotel rates to assure 100% occupancy. Freestone's currency is the Peach (P). Freestone has a currency board which keeps the Peach pegged to the dollar at  $1P = \$1$ . Professor Emeritus of Economics Nathan Reingold, a tough old independent minded buzzard is determined to keep the Peach pegged to the dollar, heads the board. In short, whatever any Freestone politicians or we may think, the currency peg is here to stay.

Reingold may be a tough old buzzard, but he is plenty smart. He keeps the Freestoners well briefed on economic events and they seldom suffer from imperfect information.

- Reingold's research is clearly predicting a decline in the Euro (€) has relative to the Peach. (Inasmuch as the Peach is pegged to the dollar, you should not be surprised that his research also predicts a decline in the Euro relative to the dollar; you may assume his forecast is 100% correct). Reingold is wondering what effect this decline will have on a number of variables, particularly

a) The number of American tourists coming this year

b) The domestic price level in Freestone

c) Interest rates in Freestone

Help him out. (It should come as no surprise that an acceptable answer will include carefully drawn, labeled, and explained Y and M curves. And as a hint, remember that the demand for goods and services is now equal to  $C + I + G + X - M$ .)

- Suppose that, instead of the resorts being owned by American investors, the Freestoners themselves owned them. How would this have changed your answers? (It should come as no surprise that an acceptable answer will include carefully drawn, labeled, and explained Y and M curves.)
- Recently, Reingold spoke to the Freestone Chamber of Commerce. The otherwise uneventful speech was marred by an unruly mob of demonstrators against the fixed exchange rate. They argued that being on a fixed exchange rate involved a loss of national sovereignty and that Freestone should float the Peach. While the demonstrators are certainly right that fixing the Peach means that Freestone has given up its rights to an independent monetary policy, there remains the issue of whether Freestone was right to give up its monetary independence. Reingold later strongly defended the fixed exchange rate as being in Freestone's national interest. Do you agree with him? Why or why not?