15 EXCHANGE RATE SYSTEMS AND MONETARY UNION

1. They are both forms of fixed exchange rate regimes in the sense that the Central bank has a target level for the exchange rate and tries to keep the exchange rate close to that target, and that this is the main objective of monetary policy. In the Bretton Woods system and the gold standard, currencies had fixed values relative to gold or dollars so effectively the conversion rates between currencies were also fixed. With a currency basket or a target zone, the exchange rates between individual currencies will fluctuate. What are the similarities and differences?

2. A stable exchange rate and free capital flows imply that the interest rate must be the same as abroad or else there will be arbitrage opportunities. Hence we lose monetary policy independence.

   We can have a stable exchange rate and free capital flows if we give up monetary policy independence as explained above.

   With a stable exchange rate we can still have some monetary policy independence if we regulate capital flows so that investors (lenders) cannot exploit arbitrage opportunities. Then we could, in theory, have a different interest rate than the one abroad. In practice, however, individuals will find ways to move money between different currencies.

   With a floating exchange rate we can have monetary policy independence although there are free capital flows. We know from experience that floating exchange rates can vary quite a lot, so we lose exchange rate stability.

3. Provided that there is not full Ricardian equivalence, the increase in taxes will shift the IS and IS* curves inwards.

   a) At an unchanged interest rate, production and employment will fall but the central bank can counteract the falling demand by reducing the interest rate. This also leads to a depreciation of the exchange rate and an increase in net exports.

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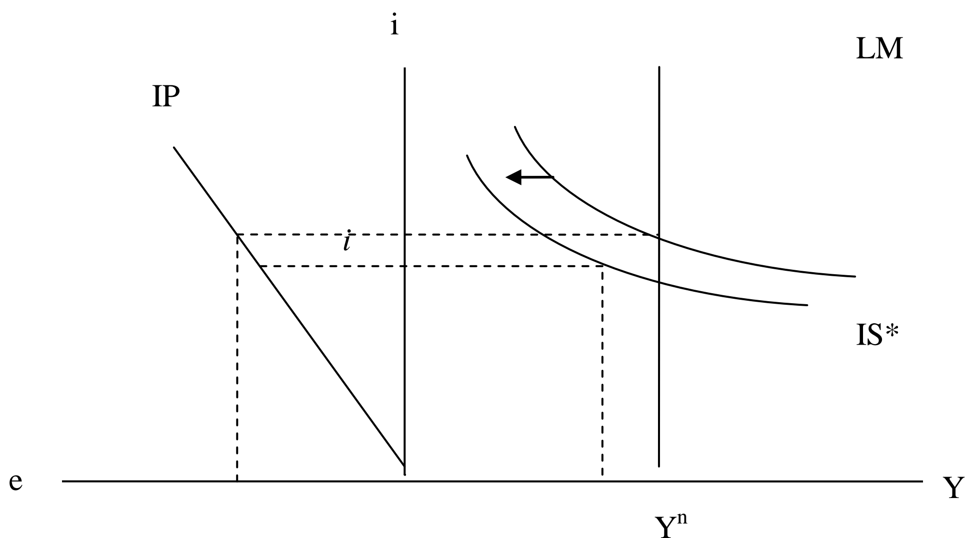
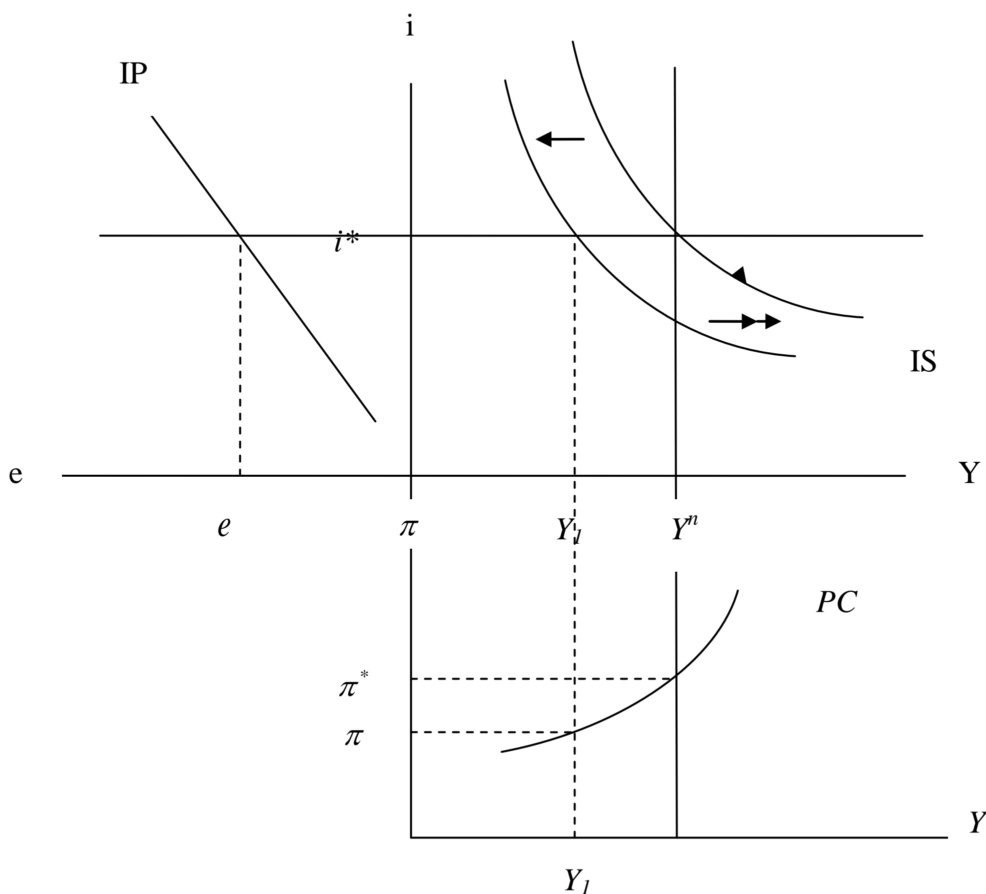


b) With a fixed exchange rate, the interest rate is also fixed and there is a decrease in production and employment. Inflation is reduced and gradually the competitiveness of the country increases so net exports increase and production returns to the natural level (IS shifts back).



c) If there is full Ricardiian equivalence, there will not be any effect on private consumption or aggregate demand of the tax increase. The only thing that

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happens is that government saving increases and private saving decreases by the same amount.

4. If the fixed exchange rate is fully credible, and there are no risks of default, the Danish interest rate must be the same as in the euro area. If investors think that there is a chance that Denmark will leave the peg to the euro, the interest rate in Denmark may differ from the interest rate in the euro area. Whether it will be higher or lower depends on whether there is a belief that the Danish crown will appreciate or depreciate if the peg is broken. If there are problems in the euro area and the Danish economy is doing well, people may think that the Danish crown will appreciate and then the Danish interest rate may be lower than that in the euro area, and conversely.

5. In the period between 1995 and 2001, inflation in the US was around 2-3 percent and the interest rate on treasury bills was about 5 percent. GDP and consumption were growing around 4 percent per year and investment growth was above 5 percent. If the dollar had not appreciated, inflation would have been higher. Given the high growth of domestic demand one may argue that the appreciation of the dollar helped to stabilize aggregate demand, production and inflation.

6. A diagram in this chapter shows that the pound appreciated by about 20 percent, in real and nominal terms, between 1995 and 1999. In the period between 1995 and 1999, inflation in the UK was around 2-3 percent and the interest rate on treasury bills was above 5 percent. GDP and consumption were growing around 4 percent per year and investment growth was above 5 percent. If the pound had not appreciated, inflation would have been higher. Given the high growth of domestic demand one may argue that the appreciation of the pound helped to stabilize aggregate demand, production and inflation.

7. A deficit in the current account means that the country is borrowing from the rest of the world. This means that the government or the private sector, or both, are borrowing. Whether this is problematic depends on the financial situation of the government and the private sector. We must look at each sector separately to try to evaluate if the finances are sustainable or there is excess borrowing.

8. One possibility is to let the currency float. Then there will probably be a large depreciation of the currency. This will stimulate exports and help the economy to recover, but institution with large debts in foreign currency may go bankrupt. Furthermore, import prices will increase and there is a risk of high inflation. With a floating exchange rate it is important to have a clear objective of monetary policy so as to establish credibility and low inflation.

   In order to defend the fixed exchange rate against speculators, the central bank has to set a high interest rate. By stating clearly that the currency will not be devalued, the government may be able to influence expectations so the interest rate can be

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reduced and the economy can recover. Also the government may take measures to improve competitiveness, e.g. by an "internal devaluation" as discussed in this chapter.

9. (Suggested answer.) In theory, the countries in the European Monetary Union were supposed to be responsible for their own fiscal policies a long as they fulfilled the rules of the Stability and Growth Pact (the Maastricht criteria). The main argument for those rules was to prevent that countries seriously mismanaged their fiscal policies so that there would be pressure on the European union and the European Central bank to bail them out. One could argue that the present problems could have been avoided if one had adhered to the rules of the Stability and Growth Pact.

10. As exports and imports increase relative to GDP, trade links between countries become stronger. This strengthens the case for joining the European Monetary Union for several reasons. First, the gains from reduced transaction costs and reduced exchange rate uncertainty become larger. Second, stronger demand spillovers between countries mean that business cycles should become more synchronized across countries so it becomes more likely that a common monetary policy fits individual countries.

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