## Chapter 69: Government intervention – fixed and managed exchange rates (3.2)

**Key concepts:**
- Fixed or pegged exchange rate
- Devaluation and revaluation
- Managed exchange rate
- Over- and under-valued currencies (adv/disadv)
- Advantages and disadvantages of fixed and floating exchange rate regimes

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| Evaluation of different exchange rate systems | • Compare and contrast a fixed exchange rate system with a floating exchange rate system with reference to factors including the degree of certainty for stakeholders, ease of adjustment, the role of international reserves in the form of foreign currencies and flexibility offered to policy makers |

Exchange rates are seldom as straightforward as the price of a currency being set purely by market supply and demand. For various historical, political and economic reasons, governments have at times linked currencies in a fixed exchange rate system.
• **Fixed/pegged exchange rate**

In the foreign exchange market examples used thus far, we have assumed that the exchange rate is established by market forces of supply and demand. When a group of two or more countries instead intentionally keep their exchange rate constant, a **fixed exchange rate** has been established. Typically today, countries wishing to establish a fixed exchange rates regime do so by pegging their own currency to another or to a basket of currencies. The central bank then intervenes on the foreign exchange market in order to keep the exchange rate within a narrow band.

The central bank can affect the exchange rate in the **short run** by **buying or selling its own currency** on the foreign exchange market (foreign exchange intervention – Forex intervention), and by adjusting the **interest rate** to influence investors’/speculator’s demand for the currency.

In the **long run**, governments might intervene using **fiscal policies, supply-side measures and protectionism** to adjust national income in order to increase or decrease exports and/or citizens’ propensity to import. Changes in exports would affect the demand for the home currency while a change in imports would affect the supply of the home currency. (See Chapter 68.)

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**Definition: “Fixed/pegged exchange rate”**

A **fixed exchange rate** links a currency to another (or basket of other currencies) within a narrow band, or “corridor”. The central bank keeps the currency fixed in the short run by **buying/selling its own currency** on the foreign exchange market, and by **increasing/decreasing the interest rate**.

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• **Devaluation and revaluation**

When a currency in a fixed or pegged regime is realigned by the government to a lower exchange rate, the currency has been **devalued**. For example, when Venezuela readjusted the Venezuelan Bolivar in February 2004, amidst a degree of fiscal turmoil, the Bolivar fell from a peg of 1,598 Bolivars per US dollar to 1,918 per dollar – which means the exchange rate for the Bolivar went from USD0.00062 to USD0.00052 per Bolivar. This is a devaluation of 16.1%.

Naturally, a government which is operating a pegged exchange rate regime can re-peg its currency at a higher exchange rate, in which case the currency has been **revalued**. This was the case in aforementioned Venezuela in February 2003, when the case was exactly the opposite; the Bolivar was adjusted upwards (re-pegged) from USD0.00052 to USD0.00062 per Bolivar, a revaluation of 19%.

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**Definition: “Devaluation” and “revaluation”**

When the government/central bank of a country running a fixed or pegged currency realigns the exchange rate to a lower value, the currency has been **devalued**. When a fixed or pegged exchange rate regime realigns a fixed/pegged currency at a higher rate, the currency has been **revalued**.

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**HOW A PEGGED EXCHANGE RATE WORKS**

In the **short to medium term**, a pegged exchange regime is upheld by keeping the exchange rate within a narrow band by central bank intervention. Using the Danish krone (Danish crown in fact; DKK) as an example, **diagrams I and II in figure 69.1** illustrate how Denmark’s central bank, Nationalbank, pegs the DKK to the EURO at an exchange rate which is allowed to fluctuate in a 2.25 percent band around a target rate of €0.134 to the DKK – a floor of €0.1309 and a ceiling of €0.1370 to the DKK.
In order to maintain the fixed exchange rate, the Danish Nationalbank would use the rate of interest and the Forex intervention to keep the peg to the EURO:

- **Keeping the krone down:** *Diagram I* shows how the long run goal of an exchange rate of €0.134 to the EURO is attempted. At **point A** the ceiling is broken and the Nationalbank can do one or both of the following:
  
  - **Sell DKK ( = buy EUROs):** When the Nationalbank buys EUROs (or indeed any other foreign currency) it uses the DKK. This intervention selling of the DKK increases the supply of the Danish krone on the Forex market from $\text{SDKK}_0$ to $\text{SDKK}_1$ moving the exchange rate for the DKK back down to €0.1370 at **point B**.

  - **Lower the interest rate:** If the central bank decreases the interest rate, the demand for the home currency would decrease ($\text{DDKK}_1$ to $\text{DDKK}_2$) as foreign investors/speculators would see a lower rate of return in holding the currency. The exchange rate falls to €0.1370 at **point C**.

  - In extreme cases the Nationalbank could both sell the DKK and lower the rate of interest. This is illustrated by an increase in supply and decrease in demand for the Danish krone, resulting in the long run target rate of €0.1340 to the DKK.

*Figure 69.1 Pegged exchange rate – the Danish krone to the EURO*
Keeping the krone up: In the same way, when the exchange rate for the DKK falls below the lower limit, to €0.1308 at point A in diagram II, the Nationalbank would intervene by:

- **Buy DKK (= sell EUROs):** When the Nationalbank buys its own currency back it uses the EURO or any other foreign currency. This intervention buying of the DKK increases demand for the Danish krone on the Forex market from DDK0 to DDK1 causing the exchange rate for the DKK to increase to €0.1309 at point B.
- **Raise the interest rate:** If the Nationalbank raises the interest rate, foreign investors/speculators would see a higher *rate of return* in holding the DKK and the demand for the Danish krone would increase (DDK0 to DDK1, point B again).
- In extreme cases the Nationalbank could both buy the DKK and increase the rate of interest, illustrated by a ‘double’ increase in demand (DDK0 to DDK1 to DDK2) for the Danish krone, whereby the DKK rises to the long run target rate of €0.1340 at point C.

Does it work? Have a look at *figure 69.2* and have a think. The answer would seem to be “Very well!” The DKK has stayed within a very narrow limit over five years – far narrower than the +/- 2.25% allowance set by the Danish National Bank.
However: there is a price tag attached to setting interest rates in order to keep a currency’s exchange rate stable, namely the trade-off in not simultaneously being able to use monetary policy for other macro objectives. (This is covered further on.) During the onset of the financial crises in 2008, the Danish Nationalbank raised interest rates to a high of 5.5% in trying to protect the DKK from a massive sell-off (primarily to the CHF) and was forced to spend some DKK55 billion (USD10 billion). This obviously inflicts costs on aggregate demand, and unemployment – not to mention the opportunity costs of USD10 billion that could have been used otherwise. The head of the IMF in Denmark was quoted as saying “…this type of issue can be quite costly for the central bank without any clear benefits…” and that “…having been in the EURO would have made it easier for the Danes to deal with the crisis.”


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By Gelu Sulugiuc - Nov 2, 2010
POP QUIZ 4.6.2: FIXED EXCHANGE RATES

1. The Chinese government pegs the Yuan to the US dollar at a rate of 6.3 Yuan = 1 dollar: What is the exchange rate for the Yuan? (NOTE: changed the rate from 8.3 to 6.3.)

2. Assume that the Bank of China will allow a fluctuation of the Yuen of 2% up or down. Between which values will the Yuen be allowed to move?

3. The Yuan becomes stronger on the market and looks like exceeding the ceiling of the peg. What does the Bank of China do?

4. How does the Bank of China’s action in question 3 above affect the balance of payments in China?

5. Say that the Chinese start to import massively from the US. How would this affect the exchange rate and how might the Bank of China have to react ultimately?

6. If the Bank of China runs out of foreign reserves, is there any other way it can influence the exchange rate?

A LITTLE DEPTH: OTHER EXCHANGE RATE TOOLS AVAILABLE TO CENTRAL BANKS

Central banks are not limited to buying and selling their currencies in order to influence the exchange rate. There are two other alternatives in the short run:

The central bank could borrow from the International Monetary Fund, the IMF (see Section 5.5). The IMF was created at the Bretton Woods conference for precisely this purpose; to aid countries having difficulty in keeping a stable exchange rate. When a country’s currency falls, and the central bank runs out of foreign exchange to buy up the home currency, the central bank can borrow funds from the IMF to get over the crisis.

In addition to the short run exchange rate policies above, a country might have to resort to more fundamental adjustments if the home currency showed signs of long run weakness. The currency could be re-pegged at a lower exchange rate; the government could implement deflationary policies to reduce import demand and thus the demand for other currencies; protectionist measures could also lower imports; and various supply-side policies could increase the long run competitiveness of the economy and thereby increase demand for the home currency. See Chapter 72; expenditure-switching and expenditure-reducing policies.
Managed exchange rate (or “dirty float”, “managed float”)

Completely fixed/pegged exchange rates create a problem of inflexibility, since economies will differ over time in fundamentals such as growth rates and inflation rates. In the long run, it could be very costly for a country with a weakening currency to defend its link to other currencies, for example by running down the foreign reserves and dampening a recessionary domestic economy by raising interest.

For this reason, fixed/pegged exchange rate regimes are largely a thing of the past. The most common form of exchange rate regime is a floating exchange rate system (outlined earlier) where the price of a currency is determined by the forces of supply and demand. In between the two “extremes” of a floating and pegged regime, one finds a managed exchange rate regime. A managed float means that the government and central bank allow the currency to float freely but will intervene at times to keep the currency within given boundaries.

A managed exchange rate is a bit like trying to be “a little bit pregnant”, i.e. not quite floating or pegged. The advantage is that the exchange rate is reasonably predictable over time and this encourages firms and households to conduct foreign trade. It also allows a certain freedom of movement for the government in setting domestic monetary policy as the currency is allowed to fluctuate ‘within reason’.

MANAGED EXCHANGE RATE REGIMES; A FEW EXAMPLES

The Singapore dollar (SGD) has been managed against an undisclosed basket of currencies since 1981. The central bank of Singapore, the Monetary Authority of Singapore (MAS), allows the SGD to float within a “band” and allows the exchange rate to move up and down within this band. The MAS uses the same policy tools outlined earlier; buying and selling it’s the SGD and adjusting the interest rate. (Refer back to *Figure 69.1– a pegged exchange rate* for diagrammatic illustration of how central bank intervention affects supply and demand for a currency.)

It is worth mentioning that few countries have a completely floating exchange rate. There are strong political and economic reasons for a government to intervene on the foreign exchange market in order to bolster or weaken the exchange rate. For example, during October 2008 the Mexican central bank sold off some USD15 billion in order to halt a falling peso exchange rate – thousands of upper-middle class households basically fled the MXN and bought US dollars during the impending financial crisis. The same fear factor created a huge upswing in demand for traditionally-seen ‘rock solid’ currencies such as the Swiss franc. The caused the Swiss central bank to intervene very heavily during the spring of 2009 to keep the value of the Swiss Franc (CHF) down and thus remain competitive internationally. The Swiss National Bank bought billions of EUROs and lowered the interest rate to 0.25% from 2.75% (a decrease of 91%) and yet the CHF still appreciated by over 15% by July of 2009.

Most countries will at one point intervene in order to stabilise the exchange rate. In fact, perhaps the only major currency which has not been subjected to interventionist Forex operations by the home country central bank during the past 30 years is the US dollar – this policy of “benign neglect” has been a cornerstone of US exchange rate policy since the early 1970’s under President Nixon.

*Definition: “Managed and pegged exchange rate system”*

When a country allows a currency to float freely but intervenes in order to adjust the exchange rate, one speaks of a managed exchange rate regime. It is sometimes referred to as a “dirty float”. An example is the Singapore dollar.

2 There are some 17 currencies currently pegged to the US dollar – for example the Jordanian dinar, Bahrain dinar, Omani rial, Quatari rial, Saudi rial, Emirati dirham and the Venezuelan Bolivar. Why do you think these currencies are pegged to the US dollar? Ask yourself what the common denominator might be between these nations.

China: fish or fowl? It becomes rather hazy to clearly define and outline the exchange rate regime currently in place in China. It has been pegged during various long intervals and then managed. Whatever the case, in both a pegged and managed exchange rate regimes there is often an incentive for the government and central bank to keep the currency undervalued. This criticism has been levelled at China for most of the first decade of the 2000s (what how to put this…‘00’s?), primarily by the US which has the world’s largest current account deficit. In keeping the Yuan (or Renminbi) lower than what market forces would set, China makes its export goods more competitive.

Figure 69.3 The flight of the Yuan, 2007 – 2012

The Yuan was pegged at CNY8.3 to the USD (CNY0.1204 to the USD) and fluctuated very little between 1995 and 2005 – less than 0.2%. During the first years of 2000 there was increasing international pressure on China to revalue the Yuan in order for major trade countries (read: USA) to be able to compete with Chinese goods. In 2005 China dropped the peg to the US dollar but adopted an ‘adjusting peg’ towards a wider basket of currencies. By 2008, the Yuan had risen to CNY0.1460 to the US dollar, an appreciation of over 20% and was again pegged – this time at a rate of CNY0.1464 to the dollar. During 2010, China once again buckled under to very loud international pressure and since then has allowed a ‘managed depreciation’ (for lack of a better term) of the Yuan. Figure 69.3 illustrates this.

There are a few notable long term costs associated with this foreign exchange policy:

- An artificially low currency means that the central bank must continuously intervene by way of keeping interest rates low and by selling the domestic currency (= buying another currency – in China’s case the US dollar). The effect of this is to severely restrict the central bank’s ability to set interest rates aimed at domestic economic goals such as taming inflation. This has indeed been the case in China, where average inflation between 1994 and 2010 was 4.25%.4
- A low exchange rate might increase export competitiveness but the “comfort zone” of an undervalued currency dissuades domestic innovation and productivity increases in the long run. In fact, the deputy governor of the People’s Bank of China (China’s central bank) said as much in late 2010; “Adopting a more flexible exchange-rate regime serves China’s long-term interests as the benefits…far exceed the cost in reorganising industries and removing outdated capacities.” 5

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4 www.tradingeconomics.com/china/inflation-cpi
5 Economicst, August 19 2010; “Wiggle it. Just a little bit”
Over- and under-valued currencies

EXCHANGE RATE IS ‘TOO HIGH’

It is clear that governments often intervene on the foreign exchange market in order to adjust the exchange rate. A question that arises is of course “Why?” One often reads about how the exchange rate is “too high” or “too low” and that domestic firms and/or government feel that intervention is justified or necessary. Exchange rates clearly have numerous economic consequences and the iteration below brings up some of the more evident effects on an economy. Please note that the headings below have quotation marks around “Too high” and “Too low” – the reason is that there is no absolute definition of the correct exchange rate.

Positive effects of “overvalued” currency:

- **Importers** will win since they will pay less for imported goods and receive their revenues in domestic currency. This could also well have beneficial effects on the domestic inflation rate since competitive forces will cause importers to pass on some of their cost savings to consumers.
- **Firms** which rely to a large extent on imported raw materials, components and other factors of production will see their costs go down. This can in fact make them more competitive on the international market.
- **Households** will see that imports and trips abroad will be cheaper in terms of the quantity of domestic currency needed to buy imports and travel abroad. Imports in fact add considerable to the standard of living.
- **A government** which has a large external (foreign) debt would see that the debt servicing (amortisation and interest payments) would be easier.
- **Export firms** in a country with a strong currency might be forced to become more efficient in order to be able to compete on international markets.

Negative effects of “overvalued” currency:

- The **current account** in the balance of payments can be adversely affected if the strong currency leads to increased import expenditure and/or decreased export revenue. There has been clear correlation between a stronger dollar and the US current account deficit.
- A strongly export-orientated country, for example China, would fear the effects of a higher exchange rate on growth and unemployment. The official figures show that exports account for 37% of GDP and one can well imagine the effects on domestic growth and unemployment due to a strong currency.6
- **Domestic firms** which have large foreign investments will see that profits decline when they are repatriated.

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6 The official figure of “37% of GDP” should be taken with scepticism. There are some serious studies showing that the official figures are seriously inflated and the real value lies closer to 10%.
EXCHANGE RATE IS ‘TOO LOW’

Positive effects of “undervalued” currency:
- Naturally the positive effects of an “undervalued” currency are something of a “mirror image” of the negative effects given above: A weaker currency lowers the price of exports and will benefit exporters and domestic industry; as the price of exports has fallen and the price of imports has risen there will be a positive effect on the balance of payments (HL: see the Marshall-Lerner and J-curve in Chapter 73); jobs will be created in export industries; countries with a high proportion of exports in relation to GDP will see growth; and international firms repatriating profits will enjoy greater returns in terms of domestic currency.

Negative effects of “undervalued” currency:
- An “undervalued” currency will have the following effects: Importers and firms reliant on imported factors of production will see costs rise; households will cut back on imported goods and foreign travel; and governments with a high proportion of foreign debt will see how debt servicing becomes dearer.
- A country with a “low” or “undervalued” exchange rate will in all likelihood experience inflation. There are two contributing causes:
  - A strong exporting nation will experience rising aggregate demand and demand-pull inflation.
  - A nation with a high volume of (HL: relatively price inelastic) imported factors of production will see increased expenditure on imported factors. This will decrease aggregate supply and thus contribute to cost-push inflation.

Advantages and disadvantages of fixed and floating exchange rate regimes
Like in so many other areas in economics, there are a number of trade-offs in choosing a certain exchange rate regime over another. Experience tells us that in choosing fixed over floating exchange rates, countries will both gain and lose. There is no perfect system of exchange rates.

ADVANTAGES OF FIXED EXCHANGE RATE REGIMES
- Predictability and certainty: Fixed exchange rates make it easier for importers and exporters to calculate earnings. Costs, revenues and profit margins are clear and predictable. This creates an incentive for firms to invest and households to engage in entrepreneurial activity.
- Exchange rate stability encourages trade: When exporters and importers can be sure of tomorrow’s exchange rate and future profits, it is easier to plan business. International stability in exchange rates lowers barriers to partaking in international trade and thus increases trade. However, there is limited merit in the argument that stable exchange rates create trade, as the increase in global trade has in fact increased faster since the breakdown of the Bretton Woods exchange rate system in 1971/72.
- Fiscal/monetary discipline domestically: This has been one of the main arguments in favour of fixed exchange rates. Recall that inflation and government deficits exert downward pressure on the exchange rate. Since the central bank will have to use limited foreign reserves to adjust the exchange rate, governments in fixed exchange rate regimes will keep inflation and deficits to a minimum in order to avoid depleting the reserves. This limits expansionary fiscal and monetary policies.
  - Another aspect of the discipline issue is that countries within a fixed exchange rate system will not be able to run up large current account deficits in the long term. Stimulating aggregate demand leads to increased imports and inflation – both of which will create net outflows in current account. A current account deficit means that more domestic currency is hitting the international market which will exert a downward force on the exchange rate.
- Less risk of speculation: Mainstream economic theory holds that since the exchange rate is fixed there would be little or no element of speculation in currencies, since there is little movement in the rates. In reality, most of the currency crises of the post-Bretton Woods period have been the result of speculative attacks on pegged currencies which were considered overvalued. (Refer to previous case study on the British pound in 1992.)
DISADVANTAGES OF FIXED EXCHANGE RATE REGIMES

“…can’t win with your hands tied…” (“Fight from the inside”, Queen album “News of the World” 1977)

- **Loss of domestic monetary policy freedom**: When a country commits to keeping a certain exchange rate, the central bank will have *limited freedom in setting interest rates* in order to influence the domestic economy. Interest is one of the tools which a central bank can use to keep a peg towards another currency, since higher interest rates attract foreign funds and thus increased demand for the domestic currency. Since the priority of the central bank must be to keep the exchange rate steady there is little room to set interest rates in order to stimulate or deflate the domestic economy via aggregate demand. There is a *trade-off* between having a fixed exchange rate and being able to set domestic monetary policy – which in extension means a *trade-off* between exchange rate stability and unemployment.

- **Need of large foreign reserves (‘war chest’)**: In order to maintain a fixed exchange rate, the central bank will need *ample foreign reserves* for market intervention. Even if this “war chest” is never used, there must be reserves enough to dissuade speculators from attacking the currency.

- **Possibility of increased unemployment**: If a country runs the risk of continued current account deficits, subsequent downward pressure on the currency will create an incentive to raise interest rates to increase demand for the domestic currency. Government spending might also be cut to decrease imports. Both these policies will have *contractionary effects* on aggregate demand and thus employment.

- **Possibility of “imported inflation”**: When prices rise in trade partner economies relative to the domestic economy, there is a risk that firms and households will simply have to pay more for imported materials and goods, creating *inflation*.

ADVANTAGES OF FLOATING EXCHANGE RATE REGIMES

- **The balance of payments automatically adjusts**: When a country runs a current account deficit, the supply of the domestic currency will increase on the foreign exchange market which in turn will lower the exchange rate. Thus, imports will become more expensive and exports relatively cheaper – the *current account will be self-correcting*.

- **No large foreign reserves necessary**: The central bank will *not need to intervene* by buying/ selling its domestic currency. This means that a large foreign reserve is not needed.

- **Freedom in domestic/monetary policies**: Not having to focus on setting interest rates to achieve a given exchange rate means that the central bank is *free to use monetary policy* to pursue domestic goals of growth and unemployment. This is perhaps the central argument for floating exchange rates.

- **Reduced speculation**: Floating currencies are intensely traded by the minute around the world. The availability of information to all traders limits the degree to which one trader will have information that others don’t. The past thirty years have shown how floating currencies in fact *do not create speculative crises* – something the famous economist James Tobin noted a few years ago.7

- **Less risk of imported inflation**: If trade partners’ inflation rates rise relative to domestic inflation, then the domestic economy’s goods become relatively cheaper. Hence there will be an increased demand for the domestic currency and an appreciation of the domestic currency. An appreciation of the domestic currency means that *import prices fall* – or at least do not rise as much as in the other countries. Thus there is less risk of importing inflation.

DISADVANTAGES OF FLOATING EXCHANGE RATE REGIMES

- **Instability and lack of predictability**: Firms often lock international deals far in advance of payment. Not knowing what the actual cost is going to be – due to exchange rate fluctuations – *can deter international*…

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7 Interview in *Radio Australia*, 17 November 1998
trade and investment. (However, most firms actually set a given exchange rate for future payment, called hedging.)

- **Lack of monetary/fiscal discipline:** Since governments are not forced to keep the exchange rate steady, there is less incentive for governments to keep budget deficits and inflation under control. Basically, government can pursue domestic expansionary/inflationary policies in the knowledge that the depreciation of the currency might serve to automatically adjust any resulting current account deficit in the longer term. However…

- **Loss of competitiveness and efficiency:** …there might be a loss of competitiveness over time since the domestic economy increasingly relies on depreciation to remain internationally competitive rather than being forced to innovate and increase productivity.

## PREPARING FOR EXAMS

### SHORT ANSWER QUESTIONS (10 MARKS EACH)

1. Using a suitable diagram, explain how a change in a country’s imports and exports can affect the exchange rate.
2. Why might a country have difficulty in attaining full employment whilst keeping a current account surplus?
3. Using a diagram, explain how a country can peg (fix) its currency to another currency.
4. Explain why a country’s currency might appreciate.
5. Analyse the possible effects of speculation on exchange rates.
6. The central bank in a country raises interest rates. How might this affect this country’s currency and balance of payments?

### EXTENDED RESPONSE QUESTIONS (25 MARKS EACH)

1. a) Examine the factors that influence a country’s exchange rate. (10 marks)
   b) How might a change in the exchange rate affect the domestic economy of the country? (15 marks)

2. a) Explain the difference between a floating and managed exchange rate. (10 marks)
   b) Discuss the advantages and disadvantages of having a managed exchange rate regime. (15 marks)
Summary and revision (need a cool pic here….maybe a pic of someone doing push-ups!)

1. The type of fixed exchange rate system used today is a pegged regime. A country pegs the price of its currency to another currency or to a basket of other currencies.

2. When a currency is readjusted in a band downwards, one speaks of devaluation. If the central bank realigns the currency at a higher value, there has been a revaluation of the currency.

3. A central bank keeps the home currency pegged to another by Forex intervention and changing the rate of interest.
   a. To lower the price of the home currency to keep the exchange rate within a band, the central bank can sell the home currency (increasing the supply of the home currency) and/or decrease the interest rate (decreasing demand for the home currency).
   b. To raise the price of the home currency above the floor set by the central bank, buying the home currency and/or increasing the rate of interest will both cause demand for the home currency to increase.

4. A managed exchange rate regime (also known as “dirty float” or “managed float”) entails periodic government intervention to adjust an otherwise floating exchange rate. There are few – if any – pure examples of floating exchange rate regimes.

5. An ‘overvalued’ currency can have positive and negative effects.
   a. Positive effects include; importers and firms which import costly factors will see increased profit margins; households will have greater spending power; government external debt decreases; there is an incentive for export firms to increase productivity in order to remain competitive internationally.
   b. Possible negative effects are; adverse effect on the current account in the balance of payments; higher unemployment in strongly export-orientated economies; repatriated foreign profits are worth less.

6. An ‘undervalued’ currency has positive and negative effects:
   a. Positive effects; lower price of exports and higher price of imports can improve current account; job creation takes place in export industries; repatriated profits from abroad are worth more at home.
   b. Negative effects; import firms see profit margins fall; households’ spending power decreases; higher debt servicing of the foreign national debt that is external; possibility of inflation in export oriented countries.

7. There are some notable advantages and disadvantages of fixed/pegged exchange rate regimes.
   a. Advantages of a pegged exchange rate; creates predictability and certainty for firms’ investment plans and households’ consumption plans; stability in exchange rates encourages trade; fixed exchange rates mean that governments are forced to exercise fiscal and monetary discipline in order to keep the long run exchange rate; less risk of currency speculation
   b. Disadvantages; there is a major trade-off in policy goals since the interest rate must be used to keep the exchange rate fixed and cannot be used to influence AD in the domestic economy; the central bank needs to keep very high levels of currency reserves; large current account deficits put downward pressure on the exchange rate which might cause unemployment when interest rates are raised to countermand this; possible to ‘import’ inflation when imports rise in price and the exchange rate remains unaltered over time.
9. **Advantages and disadvantages abound also in floating exchange rate regimes.**

a. *Advantages:* the balance of payments will automatically adjust as large imports will lower the exchange rate and thus induce more exports; no large reserves of foreign currencies necessary in the central bank; freedom in monetary policies as the interest rate can be used for expansionary/contractionary policies; reduced speculation has been the case in most floating regimes; there is less risk of importing inflation as relative inflation rates will adjust the exchange rate accordingly.

b. *Disadvantages:* instability and lack of predictability for firms and households can deter both trade and investment; governments/central banks might resolve internal unemployment via the 'printing press', e.g. there might be a lack of monetary discipline; countries in floating regimes might rely on falling exchange rates rather than attempting to increase international competitiveness via increased productivity.