

## Exchange Rates

The exchange rate is the price of one currency in terms of another.

### Factors Affecting Exchange Rates

- **Foreign Trade**
  - If businesses outside the Eurozone want to purchase goods from the Eurozone they need to purchase euros in advance. This increases demand for euros while also increasing supply of whatever currency they are exchanging to purchase euros. This will cause the euro to appreciate in value.
  - Conversely, if businesses in the Eurozone are purchasing goods from outside the Eurozone they will sell their euros to purchase the appropriate foreign currency. This increases demand for the foreign currency while also increasing the supply of euro. This will cause the euro to depreciate in value
- **Interest Rates**
  - If interest rates are high in a country, money will flow into that country so that businesses/people can get a good return on their investment. This increases the demand for the country's currency and causes the value to appreciate.
- **Level of Money Supply**
  - An increase in money supply leads to more currency in circulation which could push down the value of the currency. Central banks can put more money into circulation (quantitative easing) or purchase their currency with foreign currency reserves, depending on the policy they are pursuing
  - It also means more money is available to purchase imports. As we sell our currency to purchase imports from outside the Eurozone, we increase the supply of it and the value of the currency depreciate.
- **Role of Speculators**
  - Many large financial institutions have departments responsible for speculating on the currency markets. They buy and sell huge volumes of currency to get a return for their investors.
  - For example €1 is currently (16/4/2015) worth \$1.06. Suppose an institution buys €1,000,000 worth of dollars. This would amount to \$1,060,000. Let's say the company gambles on the euro/dollar exchange rate changing such that €1 is worth \$1.02. If the company converts the \$1,060,000 back into euro ( $\$1,060,000/1.02$ ) they will now have €1,039,216. In essence the institution has made €39,216 from the trade or a 3.9% return on its original sum
- **Purchasing Power Parity Theory**
  - The theory states that exchange rates between currencies are in equilibrium when their purchasing power is the same in each of the two countries (taking into account the exchange rate)
  - Suppose that one U.S. Dollar (USD) is currently selling for ten Mexican Pesos (MXN) on the exchange rate market. In the United States wooden baseball bats sell for \$40 while in Mexico they sell for 150 pesos. Since  $1 \text{ USD} = 10 \text{ MXN}$ , then the bat costs \$40 USD if we buy it in the U.S. but only 15 USD if we buy it in Mexico. Clearly there's an advantage to buying the bat in Mexico, so consumers are much better off going to Mexico to buy their bats. If consumers decide to do this, we should expect to see three things happen:
    - American consumers desire Mexico Pesos in order to buy baseball bats in Mexico. So they go to an exchange rate office and sell their

- American Dollars and buy Mexican Pesos. This will cause the Mexican Peso to become more valuable relative to the U.S. Dollar.
  - The demand for baseball bats sold in the United States decreases, so the price American retailers charge goes down.
  - The demand for baseball bats sold in Mexico increases, so the price Mexican retailers charge goes up.
- Eventually these three factors should cause the exchange rates and the prices in the two countries to change such that we have purchasing power parity. If the U.S. Dollar declines in value to  $1 \text{ USD} = 8 \text{ MXN}$ , the price of baseball bats in the United States goes down to \$30 each and the price of baseball bats in Mexico goes up to 240 pesos each, we will have purchasing power parity. This is because a consumer can spend \$30 in the United States for a baseball bat, or he can take his \$30, exchange it for 240 pesos (since  $1 \text{ USD} = 8 \text{ MXN}$ ) and buy a baseball bat in Mexico and be no better off.
- Purchasing-power parity theory tells us that price differentials between countries are not sustainable in the long run as market forces will equalize prices between countries and change exchange rates in doing so.
- Weaknesses?
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## **Fixed versus Floating Exchange Rates**

- **Fixed Exchange Rates**

- A fixed, or pegged, rate is a rate the government (central bank) sets and maintains as the official exchange rate. A set price will be determined against a major world currency (usually the U.S. dollar, but also other major currencies such as the euro, the yen or a basket of currencies). In order to maintain the local exchange rate, the central bank buys and sells its own currency on the foreign exchange market in return for the currency to which it is pegged.
- If, for example, it is determined that the value of a single unit of local currency is equal to US\$3, the central bank will have to ensure that it can supply the market with those dollars. In order to maintain the rate, the central bank must keep a high level of foreign reserves. This is a reserved amount of foreign currency held by the central bank that it can use to release (or absorb) extra funds into (or out of) the market. This ensures an appropriate money supply, appropriate fluctuations in the market (inflation/deflation) and ultimately, the exchange rate. The central bank can also adjust the official exchange rate when necessary.
- **Advantages of Fixed Exchange Rates**
  - Uncertainty is removed for domestic business with buying abroad.
  - Uncertainty removed for domestic business borrowing abroad
- **Disadvantages of Fixed Exchange Rates**
  - Countries may pursue policies that are not in the best interest of the nation, in order to maintain the fixed exchange rate.

- **Floating Exchange Rates**

- Unlike the fixed rate, a floating exchange rate is determined by the private market through supply and demand. A floating rate is often termed "self-correcting," as any differences in supply and demand will automatically be

corrected in the market. Look at this simplified model: if demand for a currency is low, its value will decrease, thus making imported goods more expensive and stimulating demand for local goods and services. This in turn will generate more jobs, causing an auto-correction in the market. A floating exchange rate is constantly changing.

- **Advantages of Floating Exchange Rates**
  - No government intervention so the currency finds its own equilibrium on the markets
- **Disadvantages of Floating Exchange Rates**
  - Uncertainty for businesses with regard to financial planning
  - Speculators can distort the equilibrium without regard for the country they may be impacting

In reality, no currency is wholly fixed or floating. In a fixed regime, market pressures can also influence changes in the exchange rate. Sometimes, when a local currency reflects its true value against its pegged currency, a "black market" (which is more reflective of actual supply and demand) may develop. A central bank will often then be forced to revalue or devalue the official rate so that the rate is in line with the unofficial one, thereby halting the activity of the black market.

In a floating regime, the central bank may also intervene when it is necessary to ensure stability and to avoid inflation. However, it is less often that the central bank of a floating regime will interfere.

### **Impact of a declining Euro (Opposite is true of an appreciating Euro)**

- **Imports from Non-Euro countries**
  - Price of imports from non-euro countries increases which results in a lower quantity demanded. This can positively impact the Balance of Payments on Current A/c
- **Exports to Non-Euro countries**
  - Price of exports to non-euro countries decreases. This will lead to an increase in exports which will positively impact the Balance of Payments on Current A/c
- **Inflationary Pressure**
  - As we are an open economy that imports many goods and services from outside the Eurozone, we are susceptible to inflation with increasing prices of imports
- **Increased employment**
  - With the lowering price of exports, and increased demand, there will be an increase in employment as more goods and services are demanded abroad.
- **Real value of money invested abroad diminishing (BoP Capital A/c)**
  - It will become more expensive to purchase non-euro assets abroad therefore capital will stay in Ireland
- **Real value of money from abroad invested in Ireland increases (BoP Capital A/c)**
  - As the euro declines in value it becomes more attractive to invest foreign money in Ireland
- **Irish borrowing abroad less attractive. (BoP Capital A/c)**

- It becomes more expensive for Irish to borrow in a foreign currency which will reduce Irish investment abroad

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