Lesson 4: Exchange Rate Regimes and the Impact of Exchange Rates on Trade and Capital Flows

Exchange Rate Regimes

The policy framework adopted by a country's central bank to manage its currency's exchange rate is called an **exchange rate regime**. An ideal currency regime should have the following properties:

- The exchange rate between any two currencies should be credibly fixed in order to eliminate currency-related uncertainty regarding the prices of goods and services, and values of real and financial assets.
- All currencies should be fully convertible to ensure unrestricted flow of capital.
- Each country should be able to undertake fully independent monetary policy in pursuit of domestic objectives, such as growth and inflation targets.

Generally speaking, the more freely the currency is allowed to float and the more tightly convertibility is controlled, the greater the effectiveness of monetary policy.

Types of Exchange Rate Regimes

Arrangements with No Separate Legal Tender

Dollarization: A country uses the currency of another nation (usually the U.S. dollar) as its medium of exchange and unit of account.

- The country inherits that currency's (e.g. the USD) credibility, but not its credit-worthiness.
- Interest rates on U.S. dollars in a dollarized economy are usually not the same as those on dollar deposits in the U.S.
    - Pros:
        - Central banks are not able to print their way out of high national debt.
        - Can facilitate growth of trade and international capital flows as it creates an expectation of economic stability.
    - Cons:
        - Countries lose their ability to conduct independent monetary policy.

Monetary union: Member countries share the same legal tender (e.g. the European Economic and Monetary Union (EMU) whose members use the Euro as their currency).

- Monetary policy is conducted by the ECB for the entire region
    - Pros:
        - Gives credibility to economies that have a history of fiscal excess and monetary indiscipline.
    - Cons:
        - Members do not gain creditworthiness (e.g. Greece in 2010).
        - Members cannot conduct their own independent monetary policy.

Currency Board System

- The central bank holds foreign currency reserves to cover, at the fixed parity, the entire monetary base of a country (e.g. Hong Kong).
- Expansion and contraction of the monetary base are directly linked to trade and capital flows.
- The exchange rate is essentially fixed, but it is allowed to fluctuate within a narrow band.
- The central bank cannot act as the lender of last resort, but can provide short term liquidity.
- The system works best when:
    - Domestic prices and wages are very flexible
    - Non-traded sectors of the domestic economy are relatively small
    - Global supply of the reserve asset grows at a slow, steady rate consistent with long-run real growth with stable prices.
- The monetary authority can earn a profit by paying little or no interest on its liabilities (the monetary base), and earning a market rate on its assets (foreign currency reserves). This profit is referred to as seigniorage.
    - Under dollarization, seigniorage goes to the country whose currency is used.

Fixed Parity

- The exchange rate is either pegged to a single currency or to a basket of currencies of major trading partners. The monetary authority stands ready to buy or sell foreign currency reserves to maintain the exchange rate within a narrow band.
- Although monetary independence is limited, the central bank can act as a lender of last resort.
- The success of this system depends on both the country's willingness as well as its ability to maintain the fixed exchange rate.
    - A certain level of foreign exchange reserves are required to maintain credibility. Otherwise, the currency is susceptible to speculative attacks and devaluation.
- Differs from a CBS in the following two ways:
    - The country can choose to adjust or abandon the parity since there is no legislative commitment to maintain the specified parity.
    - The target level of foreign exchange reserves is discretionary and is not linked to domestic monetary aggregates.

Target Zone

- Similar to a fixed-rate system.
- The only difference is that the monetary authority aims to maintain the exchange rate within a slightly broader range.
    - This gives the central bank greater ability to conduct discretionary policy.

Active and Passive Crawling Pegs

- Under a passive crawling peg system the exchange rate is adjusted frequently in line with the rate of inflation.
    - Used in Brazil during periods of high inflation.
    - The aim here is to prevent a run on foreign currency reserves.
- Under an active crawling peg system the exchange rate is pre-announced for the coming weeks and changes are made in small steps.
    - Used in Argentina, Chile and Uruguay.
    - The aim here is to manipulate inflationary expectations.

Fixed Parity with Crawling Bands

- The country initially fixes its exchange rate to a foreign currency, but gradually moves towards a more flexible system by pre-announcing the widening of bands around the central parity.
- This allows the country greater flexibility in determining its monetary policy.

Managed Float

- The country does not explicitly state its exchange rate target, but intervenes in the FX markets to meet its policy objectives (regarding balance of trade, price stability or unemployment).
- Such intervention (also called dirty floating) typically also causes the country's trading partners to retaliate in a similar fashion and leads to instability in FX markets as a whole.

Independently Floating Rates

- The central bank rarely intervenes in the determination of its exchange rate, which is left to be determined by market supply and demand factors.
- Enables the central bank to engage in independent monetary policy aimed at achieving price stability and full employment
- Also allows it to act as a lender of last resort to troubled institutions.

A trade surplus means that the economy as whole (government saving and private saving combined) saves enough to fund its investment needs. The excess saving is used to accumulate financial claims against the rest of the world.

- Recall that countries with a trade surplus must finance the deficits of their trading partners, which gives rise to financial claims against those countries.

A trade deficit means that the country must borrow from the rest of the word to meet its investment needs.

Exchange Rates and the Trade Balance

The Elasticities Approach

Recap from Reading 13:

- If demand is relatively price elastic (elasticity > 1) a decrease (increase) in the price of a good will result in an increase (decrease) in total expenditure on the good.
- If demand is relatively price inelastic (elasticity < 1) a decrease (increase) in the price of a good will result in a decrease (increase) in total expenditure on the good.

The ideal combination for a country that wants to reduce its trade deficit and expects its currency to depreciate is that its imports and exports both be relatively elastic.

The Marshall-Lerner Condition

Marshall-Lerner Equation

Generally speaking, exchange rates will be more effective in adjusting trade imbalances if the countries' imports and exports are composed of items that have relatively elastic demand, for example:

- Goods that have viable substitutes
- Goods that trade in competitive markets
- Luxury goods (rather than necessities)
- Goods that represent a larger proportion of a consumer's expenditures
- Goods that represent a larger proportion of total input costs for a final product.

The Absorption Approach

Recall that an economy's trade balance equals its total savings (adjusted for the government's fiscal balance) minus investment expenditure. Equivalently, the trade balance equals the difference between national income/output and domestic expenditure (or absorption). This implies that devaluation of the exchange rate can direct the trade balance towards a surplus if it increases:

- National income relative to expenditure; or equivalently
- National saving relative to investment in physical capita

If an economy is operating below full employment, then, by diverting demand towards domestically produced goods, devaluation can increase income/output. A portion of this income/output will be saved so expenditure will rise by less, and the trade balance will improve.

If the economy is operating at full employment, output/income cannot be increased further. As a result, expenditure must decline for there to be an improvement in the trade balance.