

Managing Exchange Rates

Exchange Rate Regimes

The IMF lists exchange rate regimes in **two categories**: countries that (1) **do** and (2) **do not** have their **own currency**.

Countries that do not have their own currency

1. **Formal dollarization**: use the currency of another country (e.g., Zimbabwe and USD [2009–2019])
2. **Monetary union**: several countries use a common currency (e.g., countries in the European Union)

Exchange Rate Regimes (2)

Countries that have their own currency

1. **A currency board arrangement:** an explicit commitment to fix an exchange rate (e.g., HK currency, or HKD, is backed by the USD)
2. **Conventional fixed peg:** a country pegs its currency to within margins of $\pm 1\%$ to another currency/basket of currencies
 - *Direct intervention:* monetary authority maintains the peg by buying and selling currencies in the FX markets
 - *Indirect intervention:* via monetary policy, local regulation of FX

Exchange Rate Regimes (3)

Countries that have their own currency

3. **Pegged exchange rates in a target zone:** the permitted currency fluctuations (*a.k.a. horizontal bands* are wider; for example, $\pm 2\%$)
4. **Crawling peg:** a *passive crawling peg* adjusts the FX rate periodically to allow for inflation, and an *active crawling peg* announces a series of adjustments in advance
5. **Crawling bands:** the *width of the bands* identify permissible exchange rates over time; the wider the band, the greater the flexibility of monetary policy

Exchange Rate Regimes (4)

Countries that have their own currency

6. **Managed floating exchange rates:** use *economic indicators* such as inflation rates, balance of payments, unemployment data; intervention may be direct or indirect
7. **Independent floating currency:** *the market* determines the exchange rate, and foreign market intervention is only used to slow the rate of change and reduce short-term fluctuations; no specific target level for exchange rates

Changes in Exchange Rates

Changes in exchange rates affect both **imports** and **exports**.

If the USD/EUR exchange rate **decreases**:

- As the EUR has decreased, U.S. exports are more expensive and fall, while eurozone imports become cheaper and rise.

The effect on the goods and services market (imports and exports) will occur *more slowly* than effects on capital flows.

Balance of Payments

Capital flows offset any imbalance between the value of imports from, and exports to, another country.

Example: China and the U.S.

- Typically, the value of **U.S. imports** from China are higher than **U.S. exports** to China.
- The U.S. has a trade (goods and services) deficit with China, and China has a trade surplus with the U.S.—and **capital flows** offset this difference.

Trade Deficits and Balance of Payments

Trade deficits occur when imports exceed exports, so $(X - M) < 0$.

Trade deficit impact on the balance of payments

The right-hand side must also be negative, so that total savings $[S + (T - G)]$ is less than domestic investment in physical capital (I):

$$(X - M) \equiv (S - I) + (T - G)$$

The additional capital needed to fund domestic investment must come from foreigners, creating a **capital account surplus**.

Objectives of Capital Restrictions

Governments may place **restrictions** on the flow of investment capital in and out of a country.

- **Reduce the volatility** of domestic asset prices, especially in a crisis, as capital outflows may drive down asset prices.
- **Maintain fixed exchange rates** (e.g., fixed rate targets).
- **Keep domestic interest rates low** by restricting the outflow of investment capital.
- **Protect strategic industries** for national security (e.g., telecommunications and defense industries).