Learning Objectives

- To examine the forces of **demand and supply** in the foreign exchange market
- To discuss a number of different **factors** which cause exchange rates to fluctuate
- To consider the role of **exchange rate forecasting**

1. Factors Which Influence Exchange Rates

1.1 Relative Inflation Rates - Purchasing Power Parity

1.1.1 Law of One Price

The **Law of One Price** states that the prices of traded goods and services - when expressed in a common currency - are the same in all countries. For instance,

$$P^{\$} \times S^{¥/\$} = P^{¥}$$

Where the price of the product in A \$'s $\left(P^{\$}\right)$, multiplied by the spot exchange rate (S, yen per dollar), equals the price of the product in Japanese yen $\left(P^{¥}\right)$.

Practice (PRACTICE QUESTIONS SET 2): What is the ‘law of one price’? According to this ‘law’, what should happen to the currency of a country experiencing hyper-inflation?

Answer:

- The ‘law of one price’ states that producers’ prices for goods or services of identical quality should be the same in different markets (i.e. different countries) assuming **no restrictions on sales and allowing for transportation costs**. If a country has **higher inflation** than other countries, its **currency should devalue/depreciate** so that the real price remains the same in all countries.
- Application of this law results in the theory of Purchasing Power Parity (PPP). A country experiencing hyper-inflation needs substantial depreciation of its nominal exchange rate to restore PPP.

1.1.2 Purchasing power parity

PPP predicts an **inverse relationship between the domestic exchange rate and its inflation rate** relative to trading partners: the domestic currency will depreciate as domestic inflation rises relative to trading partners.

Absolute PPP expresses the exchange rate as the ratio of the price levels in the two countries:

$$S^{¥/\$} = \frac{P^{¥}}{P^{\$}}$$

Relative PPP states that **the differential in inflation rates** between two countries will determine the change in the exchange rate over the given period

$$S_2^{¥/\$} = S_1^{¥/\$} \times \frac{(1 + \pi_{\text{Jap}})}{(1 + \pi_{\text{USA}})}$$

Practice (PRACTICE QUESTIONS SET 2): What is the **difference** between the absolute theory of purchasing power parity and the relative version of that theory?

Answer:

- The absolute version of the theory of purchasing power parity states that the nominal exchange rate between two countries can be predicted from the ratio of prices for identical goods and services in the two countries.
- The relative version of the theory uses changes in a price index between two periods to predict changes in the exchange rate (rather than the absolute exchange rate).

1.2 Current Account

The current account balance reflects relative demand for goods and services in international trade

- Countries which have large current account deficits
  reveal a lack of international competitiveness
- Demand for their traded products is less than their demand for foreign products
- The exchange rate is required to **depreciate to reduce**
  the deficit
- **Continuous current account deficits** also add to the
  level of foreign liabilities: **Risk averse investors may withdraw capital**.

1.3 Asset Markets

Asset market theories concentrate on capital/financial flows

- These theories assume the exchange rate is determined by the quantities demanded and supplied of various financial instruments
- Theories focus on interest rate differentials, relative bond yields and relative price/earnings ratios
- Relative financial returns affect the willingness of investors to hold domestic financial instruments relative to foreign financial instruments and thus the demand for domestic currency relative to foreign currency

Theory predicts a direct relationship between domestic financial returns and the exchange rate

1.4 Relative Growth Rates

Conflicting evidence as to the role of economic growth

- 'Old View' A high rate of economic growth in the domestic economy increases demand for foreign goods and leaves fewer domestic goods available for export. This **increases the supply, and reduces the demand for domestic currency** on the FEM putting **downward pressure on the exchange rate**.
  - Relevant for countries where the trade balance dominates the FEM
- 'New View' A high rate of growth in the domestic economy may attract foreign capital wishing to take advantage of a booming economy. This **increases demand for domestic currency** and puts **upward pressure on the exchange rate**
  - Relevant for countries where financial flows dominate the FEM

1.5 News and Expectations

Market expectations and new information play a vital role in the determination of exchange rates, particularly in the **short term**.

1.6 Commodity Prices

Countries which are highly dependent on commodities as either exports or imports reveal **a correlation between their terms of trade and the exchange rate**.

'Terms of trade' – a ratio of the prices of exports of goods and services to the prices of imports of goods and services

1.7 Role of Government

Through actual and expected policy changes – fiscal, monetary, labour market, environment.

Direct intervention in the foreign exchange market

Co-ordinated agreements between central banks

Foreign trade policy

Foreign investment policy