Exchange Rate and Its Policies

1. Functions of the Exchange Rate

A. Standard Function:
The exchange rate allows for a comparison between the prices of local goods and similar goods in other countries.

B. Development Function:
The exchange rate can be used to develop certain economic sectors in the country by granting them favorable rates when importing or exporting.

C. Distribution Function:
When the value of a leading currency falls, the countries whose currencies are pegged to it will benefit. Conversely, if the value of the leading currency rises, partner economies will have to pay more of that currency to continue importing.

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2. Methods of Currency Coding and Pricing

Exchange transactions, especially in the foreign exchange market, are characterized by mechanisms and techniques that have simplified and globalized operations.

2.1 Currency Coding:

Most markets follow the **ISO (International Organization for Standardization)** standard for currency codes. Each currency is represented by a three-letter code:

- The first two letters represent the country.
- The third letter is the first letter of the currency name.

Example:
The US dollar is represented as **USD**:

- "US" for the United States
- "D" for Dollar

This is the most widely used system, although another less common method uses currency symbols.

2.2 Currency Pricing Methods:

According to Bialès (2006), there are two main methods:

A. Indirect Quotation (More Common):
Specifies the value of one, one hundred, or one thousand units of foreign currency in terms of the local currency.

Example:
In Algeria:
USD/DZD = X
This means 1 US dollar (foreign currency) equals X Algerian dinars (local currency).

B. Direct Quotation:
Used in Eurozone countries, the UK, and some banks in the US. The local currency is fixed, and the foreign currency varies.

Example in London:
GBP/USD = X
This means 1 British pound (local currency) equals X US dollars (foreign currency).

Conversion Tip:
You can switch from one pricing method to another by simply calculating the reciprocal of the quoted rate.
For example, if **USD/EUR = 0.8750-90**, then:
EUR/USD = 1 / 0.8790 (buying) and **1 / 0.8750 (selling)**
=> EUR/USD = 1.1376 - 1.1428

2.3 Bid and Ask Prices:

When someone contacts a bank for exchange rates, they are usually quoted two prices:

- **Bid Price:** The price at which the bank buys a foreign currency.
- **Ask Price:** The price at which the bank sells the foreign currency.

Example:
USD/GBP = 0.8910-90
This means 1 US dollar is bought for 0.8910 GBP and sold for 0.8990 GBP.
The difference is the bank's profit margin.

Market Example:
Given:

- USD/EUR = 2.0550-60 (USA)
- GBP/USD = 1.4765-75 (UK)
- USD/YEN = 155.80-90 (Japan)
- EUR/MXN = 65.00-10 (Mexico)
- USD/MXN = 135.40-50 (USA)

Calculate:

- EUR/USD
- USD/GBP
- YEN/USD

Also, determine:

- At what price would you buy USD against EUR?
- At what price would you sell EUR against USD?
- At what price would you sell USD against YEN?

Solution:
Interpret the first number as the bid and the second as the ask. For Japanese yen, multiply the result by 100.

To calculate EUR/USD from USD/EUR:
Take the reciprocal of the rates:

- **Bid:** 1 / 2.0560 = 0.4864
- **Ask:** 1 / 2.0550 = 0.4866
  => **EUR/USD = 0.4864 - 0.4866**

Apply the same method to the other currencies.

2.4 Derived Exchange Rates (Cross Rates):

Cross exchange rates involve calculating the exchange rate between two currencies using a third, often the USD.

Formulas:
Let:

- **X/Y (bid)** = bid price of currency X against Y
- **X/Y (ask)** = ask price of currency X against Y
- **X/Z** and **Y/Z** follow similar notation.

To calculate **Y/Z**, use:

- **Bid:** (X/Z bid) / (X/Y ask)
- **Ask:** (X/Z ask) / (X/Y bid)