

# BALANCE OF PAYMENTS AND EXCHANGE RATES

Hassan Basodan

**Abstract-** The project is based on balance of payments and exchange rates. It will highlight the concept of balance of payments, the types of transaction of balance of payment, the legal authority of balance of payment, the sources from where the data related to the transaction is collected and the seasonal adjustment required in the balance of payment. Furthermore, it will explain the what does the balance of payment measure and the relationship between exchange rate and balance of payment will be explained in detail. The research will be bases on literature, data, econometrics and computers (Eviews programs).

## Introduction

### Balance of payments

Balance of payments records all the financial transaction that a country makes with other countries in a year. These transactions allow the transfer of ownership of anything that has economic value and can be measured in monetary terms for citizens of one country to citizens of the other country. The transaction can involve:

1. Tangible goods that can be products that have visible existence.
2. Intangible goods that are the services.
3. Income of its citizens.
4. Liabilities and financial claims to other countries.

Usually, a transaction is the return of one resource for another—or one resource for several assets—but it may also include a present, which is the supply by one country of something of economical value to another country without something of economical value being obtained in return.

International dealings are documented in the balance of payments on the reasons for the double-entry principle used in company bookkeeping, in which each transaction gives increase to two offsetting records of equivalent value so that, in concept, the causing the both sides entries are always same. (Lima, 2013) Transactions are usually respected at market costs and are, to the level possible, recorded when a modification of a possession happens. Transaction related to products, services and unilateral transfers are recorded in the current account and the transaction related to liabilities and financial assets are recorded in the capital accounts.

### Exchange Rates

Exchange rate is then value of one currency in terms of another. For example the current exchange rate of pound in terms of dollar is 1 pound =1.6 US dollars. It means that it takes 1 pound to purchase good of worth 1.6

dollars. And from the dollar perspective it means that 1.6 dollars can buy goods and services worth of 1 pound.

Devaluation of a currency means that the value of the currency decreases in terms of another currency. This means that the country will have to pay more to buy goods and services that it buys from other countries. And if the currency value appreciates, this means that the country will have to now pay less to buy the same amount goods and services. Devaluation leads to decrease in the purchasing power of the currency and appreciation lead to the increasing purchasing power of the currency. (Laffer, 1974)

## Types of Transactions

### Current account

The Current account records transaction of products, services and unilateral transfers between residents of one country and the other. It is one of the measures to calculate the country's foreign trade. Moreover, a surplus in the current account increase the country's foreign assets by that particular amount and deficit does the opposite. Both government and private expenses are involved in the computation. (Davidmann, 2011) It is called the present consideration because products or services are generally absorbed in the present period.

### Calculation of the Current account balance

The current account consists of thee following four components:

#### Goods

Being portable and physical in characteristics, products are often exchanged by nations all over the world. When a deal of certain good's possession from a nation to overseas occurs, this is called an "export." (Tribedy, 1986)

#### Services

When an intangible service (e.g. tourism) is used by a foreigner in a regional area and the regional citizen gets the cash from a foreigner, this is also mentioned as a trade, thus a credit score.

#### Income

A credit score of earnings happens when a personal or an organization of household nationality gets cash from a organization or personal with international identification. An international organization's investment upon a household organization or a municipality is considered as a credit score. (Mussa, 1985)

### Current transfers

Current exchanges take position when a certain international nation simply provides foreign assistance to another nation with nothing obtained as a return. Generally, such exchanges are done in the form of contributions, helps, or formal assistance.

### Formula of the Calculate the current account balance:

$$\text{Current account} = (X - M) + NY + NCT$$

X=exports, M=imports, NY =net income abroad, NCT=net current transfer.

### Capital accounts

Under capital records transaction related to the liabilities and financial assets between the citizens of two countries is recorded. It basically shows the change of ownership of a country's national assets. A surplus in the capital account means that a country is getting more money by borrowing or sale of assets and the deficits means that the country has more outflows than inflows and increasing ownership of foreign assets.

The capital account consist of following four components

### Foreign investment

If people from other countries are investing in a country, that symbolizes an incoming circulation and matters as an excess item on the financial commitment consideration. If a country's people are making an investment in foreign countries that symbolizes an outgoing circulation.

### Portfolio investment

The income based on these resources is documented in the current account; the figure to be recorded in the capital account will just be for any selling of the profile resources in the international financial commitment markets.

### Other financial reserves

This includes financial commitment moves into banking records or provided as loans.

### Reserves

The source consideration is managed by a country's main financial institution to buy and sell foreign currencies; it can be a source of huge financial commitment moves to deal with those via the industry. Inbound financial

commitment moves (from sales of the country's foreign currency), especially when along with a present consideration excess, can cause a rise in value (appreciation) of a country's currency, while outgoing moves can cause a fall in value (depreciation). If a government (or, if approved to operate individually in this area, the main financial institution itself) does not consider the market-driven change to its currency value to be in the country's best interests, it can get involved. (Cheini, 2013)

### Calculation of Capital account balance

$$\text{Capital account} = \text{Foreign investment} + \text{Reserve account} + \text{Portfolio investment} + \text{other reserves.}$$

### Calculation of Balance of payment

$$\text{Balance of payment} = (\text{current account} + \text{capital account} + \text{net errors and omissions}) = 0$$

As net errors and omission reflects mistakes and if no mistakes are made then the formula would

$$\text{Current account} = \text{Capital account}$$

It is very important that if a country is having deficit in its current account, then it should have surplus in its capital account to become equal

### Balance of Payment of China (2009)

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	Billion (dollars)
<b>Current account</b>	<b>132,876.70</b>
Good and services	2,124.90
Trade balances	4,038.10
Exports	50,857.90
Imports	46,819.10
Services	-1,913.20
Income	-12,325.40
Current transfer	-1,163.50
<b>Capital account</b>	<b>-126,447.70</b>
Financial account	-12,179.40
Direct investment	-5,872.50
Portfolio investment	20,505.30
Other investments	13,249.70
Capital account	-465.30
Changes in reserve assets	-2,526.50
<b>Errors and omission</b>	<b>1,884.40</b>

### Legal authority (U.S balance of payment)

According to the section 8 of the Bretton Woods agreement of 1945, it is the responsibility of the U.S government to collect all the data for the balance of payment and compile it to present it to the international organizations. Other than the institutional and personal remittances en to foreign countries and expenditures of the tourists all other transaction are mandatory according to this act.

Furthermore, it is the responsibility of the Operation Management and Budget to improve the accuracy and quality of the balance of payments surveys conducted. For any changes regarding the reporting forms and to conduct new surveys it is important to take Operation Management Budget permission.

### **The sources from where the data is collected for the balance of payment**

The data for the balance of payment is conducted from various sources which include:

- **Census Bureau Merchandise Trade Statistics**  
For the monthly merchandise report of exporters and importers, the shipping documents that then exporters and imported file are used. And these censuses are conducted on monthly basis.
- **BEA surveys**  
These are the basis of the reports of invoices and expenses of earnings and Financial flows with regards to, invoices and for chosen services, direct investment and personal remittances and other exchanges. Also, data from personal companies, mainly companies, that takes part in dealings with foreign citizens on their own part or on part of others. Moreover other surveys collect data of the citizens travelling abroad. Details acquired from the BEA reviews are, in some situations, combined with information from other government agencies.
- **Data from Other U.S. Government Agencies**  
All the government agencies engaged in international transaction have to report quarterly to the BEA. These data are the basis for the reports of foreign army sales and direct protection expenses, invoices and expenses for Government various services, interest paid to and obtained from people from other countries government allows and pensions and other exchanges, other Government resources overseas, and certain government obligations.
- **Other sources**  
Other sources include government international agencies, trade associations, federal banks, statistical offices and other international dealers.

### **The role of IMF**

International Monetary fund is an organization that deals with 188 countries, to promote international trade, high employment, reduce poverty, and increase financial stability. Other than these objectives, one of the main objectives of IMF is to help its member in meeting then balance of payments needs. It has this complete manual that provides complete guidelines of what to

include in balance of payment and the standard that should be met for that. When IMF started, its initial two purposes was to manage the exchange rates between two countries by providing them aid for the economic growth and the second one was to provide the countries with financial help so that they can meet their balance of payment needs.

### **The table below shows the assistance that IMF has provided to different countries**

Countries	Amount
Asia	17
Africa	32
America	24
Europe	12

### **Balance of payment measures**

The Balance of payment of U.S measures four following components:

- **The good and services balance**  
It measures the net transfer of merchandise that includes the income of portfolio and direct investment. In short this balance should be same of the balance of the net exports and services in the Gross National product.
- **The balance on merchandise trade**  
It measures the difference between the country's net exports and its net imports.
- **The balance on remittances and goods and services**  
Beside the merchandize it includes the unilateral transfers by the government, private remittances and other transfers.
- **The balance on current account**

It is the measure transaction related to the products, services and unilateral transfers between residents of one country and the other. A surplus in the current account increase the country's foreign assets by that particular amount and deficit does the opposite. (Sweeney, 1980) It is called the measure because products or services are generally absorbed in the present period.

### **Exchange rates and its relationship with balance of payment**

Exchange rate is the value of one currency in terms of another. Both Exchange Rates and Balance of payment have a strong relationship. Exchange rates have huge impact on the balance of payments. Whenever a country's exchange rate falls, it means the value of its currency in terms of another country has fall, which in return makes its exports cheaper and imports expensive. This can lead to a current account deficit and will have negative effect on balance of payment. On the other hand the increase in the exchange

rates of one currency will help the country improve its current account and so its balance of payment. (Chang, 1992)

The second metric is the reach of the content among potential audience size. To find engagement, we select important actions like clicks, retweets, or replies and divide them by reach. Engagement helps marketers discover how people react to the campaign based on the goals that the company specified. For example, if the focus was on communication, then companies may look at replies and comments or at retweets and posts if the emphasis was on spreading a message (Davis, 2012).

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