Balance of Payment

- An accounting statement that summarizes the economic transactions & monetary interactions between residents of a home country and residents of all other countries within a specific period of time.

Balance of Payments Manuals

- The **Balance of Payments Manuals (BPMs)** published by the International Monetary Fund (IMF) specify international standards and norms applicable to the compilation of external sector statistics.
- Since 2013 onwards central bank of Sri Lanka changed the reporting structure of balance of payment account based on BOPM 6 guidelines.
- According to BOPM 6 guidelines, BOP account reflects **International Investment Position (IIP) of a country.**
- The International Investment Position (IIP) is a **statistical statement that shows the value and the composition of financial assets of residents of Sri Lanka that are claims on non-residents, and liabilities of Sri Lankan residents to non-residents at a particular point in time.**

Key Headings in Balance of payment Account

a. Current & Capital Account
b. Financial Account
c. Errors and Omissions
d. Overall Balance

Current & Capital Account

- This account comprises main two sub accounts.
    1. Current Account
    2. Capital Account

Current Account

- The current account includes all international economic transactions with income and payment flows (monetary inflows & outflows) occurring within the year, current period those are recurrent in nature.
- There are 4 sub accounts are included in to current account.

1. Trade Account (Goods Account)
2. Services Account
3. Primary Income Account
4. Secondary Income Account

Goods A/C (Trade Account)

- This is the account that includes the value of imports and exports of general merchandise trade and non-monetary gold.
- This account only includes imports & exports of physical goods.
- In this account exports are recorded as credits and imports are recorded as debits.
- Trade balance is the difference between physical goods exports and imports.

Important; - *Migrants' personal effects are not included in general merchandise or anywhere else in the international accounts as there is no change in economic ownership.*

Special Note : Non- Monetary Gold

- Non- Monetary gold is,
  a. gold used by private sector as a store of value and
  b. gold used for industrial purposed (such as Jewelry Industry etc.)

- Non- Monetary gold is recorded under trade account (separate item) in BOP.
- There are few reasons to consider non-monetary gold separately from other merchandize;
  a. Buying and selling relating to non-monetary gold is based on the available gold stock
  b. As in other goods there is no new production but currently available gold stock will be circulated among different parties.

Services A/C

- This is the account that includes all foreign currency receipts and payments on non-factor services. This account only includes foreign currency receipts and payments on invisible trade.
- In this account receipts are recorded as credits and payments are recorded as debits.
- Services balance is the difference between non-factor services receipts and payments.
- Services Account includes,
  a. Transport
  b. Travel
  c. Construction
  d. Insurance and pension services

e. Financial services
f. Telecommunications
g. Computer and information services
h. Other business services and government goods and services (not included elsewhere).

Primary Income Account

- The primary income represents the returns that accrue to residents for their contribution to the production process or provision of financial assets and renting natural resources to non-residents.
- This is the account that includes all foreign factor services receipts and payments.
- Accordingly, the Primary Income Account includes **compensation of employees and investment income.**
- The **Income Account** in the previous format (BOPM 05) is now referred to as the **Primary Income Account** in the BPM6.

Important: - In national accounting, net foreign factor income (NFFI) represents primary income account balance.

Secondary Income Account

- This is the account that includes all current unilateral receipts and payments (current transfers) between residents and non-residents.
- Current transfers may be in cash or goods.
- The Secondary Income Account in the BPM6 replaces the 'current transfers' in the previous format.
- There are two main sub headings in the secondary income account.
    a. Workers' remittances (Private Current Transfers)
    b. Government transfers (Official Current Transfers)

Important: - In national accounting, net foreign current transfers (NFCT) represents primary income account balance.

Special Note: Primary income A/C Vs. Secondary income A/C

- Following items are included in primary income account;
    a. Wages generated relating to production process
    b. Indirect taxes and subsidies given and imposed on output
    c. Interest related to financial assets and investments

d. Re-investment earnings
e. Dividends
f. Rent income earned by renting out non-monetary natural resources
g. Income earned from intellectual property such as copy rights, brands, patenting, licensing.
(but not selling or buying intellectual property)

- Following items are included in secondary income account (all transactions those were reordered under current transfers in the previous classification) ;
    a. All current unilateral transactions (either private or official) between residents and non-residents

Capital Account

- The Capital Account includes:
    a. **Capital transfers** receivable and payable between residents and non-residents and
    b. **The acquisition and disposal of non-produced, nonfinancial assets** between residents and non-residents.
        - Tangible Assets – Land, underground assets
        - Intangible Assets – Royalty, Chartered licenses, brand names

- Examples ;
    a. Selling a land to an embassy
    b. Selling & buying intellectual property brand names and copy rights
    c. Selling and buying franchises
    d. Leases
    e. For the purpose of raising capital providing or acquiring resources are unilaterally
    f. Monetary or material grants (donations) provided by governments and international organizations

- The personal effects, financial assets, and liabilities of persons **changing residence are no longer covered by capital transfers.**
- In the previous format **capital account was grouped with the financial account**. Instead it is coupled with the Current Account.

Important :-

- The balance of the Current and Capital Accounts represents the net lending or borrowing of the economy.
- In the previous format financial assets and liabilities of emigrants who migrate from country to country included in capital account. But in the new format this migration proceeds are excluded from BOP account.

Recent Trends in Current and Capital Account Balance

	As a Percentage of GDP					
	2013	**2014**	**2015**	**2016**	**2017**	**2018**
Trade Balance	-11.3	-10.4	-10.4	-10.9	-11.0	-11.6
Goods and Services A/C Balance	-9.6	-8	-7.5	-7.3	-7.2	-7.4
Current Account Balance	-3.8	-2.5	-2.3	-2.1	-2.6	-3.2
Current and Capital Account	-3.7	-2.4	-2.3	-2.1	-2.6	-3.1

Financial Account

- The Financial Account records transactions that **involve financial assets and liabilities** that take place between residents and non-residents.
- **The balance of the Current and Capital Accounts is conceptually equal to the balance of the Financial Account (and errors and omissions), which measures how the net lending to or borrowing from non-residents is financed.**
- The Financial Account uses the headings 'net acquisition of financial assets' and 'net incurrence of liabilities' instead of 'debits' and 'credits'.
- In the previous format items were reordered as debit and credit. But in the new format they are reordered as net values.
- In other words;
    - Net acquisition of financial assets
      (Difference between acquisition & reduction of financial assets)
    - Net change of financial liabilities
- In the previous format items were reordered in the institutional nature and in the new format they are reordered in functional nature.
- Key headings of the financial account in the new format
    a. Direct investment
    b. Portfolio investment

c. Financial derivatives and other investments

d. Reserve assets

Direct investment

- Direct investment defined as an investment of which,
  a. a direct investor is a **non-resident investor**
  b. who has invested in **more than 10 per cent of the voting equity shareholding** in a Sri Lankan enterprise.
- Direct investment is recognized through 2 sources.
  a. Inflows to the **Colombo Stock Exchange (CSE) based on the equity shareholding percentage** of each individual foreign investor in a company listed in the CSE.
  b. Total **inflows to BOI companies**, which include foreign loans received in addition to direct investment

Portfolio investment

- Portfolio investments consists of two main categories:
  a. Foreign investments in equity and investment fund shares
  b. Foreign investment in debt securities issued by Sri Lankan residents

- Portfolio transactions include foreign investment in to secondary market transactions in the CSE such as :
  a. Foreign investment in initial public offerings (IPOs),
  b. Rights issues and
  c. Other non-voting shares.

Note:- In the previous classification all investment inflows to CSE was identified as portfolio investment. But now the foreign investments of investor owns less than 10 per cent of the equity with voting power in the domestic enterprise are only considered as portfolio investments.

Financial derivatives & other investments

- Other Investment is a broad category which includes:
  a. Currency and deposits
  b. Loans
  c. Trade credits and advances,
  d. Other accounts receivable and payable
  e. Special Drawing Rights (SDRs).

- **Currency and Deposits**

    a. **Foreign assets and liabilities** in the form of **currency and deposits** are assets and liabilities of the **Central Bank and other deposit taking corporations**

    b. Therefore, under this category there are two sub categories.

        i. Central Bank

        ii. Deposit taking corporations (Licensed commercial banks, licensed specialized banks, licensed financial companies).

- **Loans**

    This consists of foreign loans liabilities of

    a. CBSL (outstanding liabilities to the IMF)

    b. Deposit-taking corporations (Licensed commercial banks, licensed specialized banks, licensed financial companies).

    c. Government (concessional and non-concessional project loans received from foreign sources)

    d. Private sector (corporate borrowings from the private sector and state owned enterprises (SOEs))

- **Trade Credit & Advances**

    a. Trade credits given to non-residents by Sri Lankan companies and export bills discounted by LCBs, fall under assets in the form of trade credits,

    b. Trade credits received by Sri Lankan residents (the major portion of which is outstanding trade credit position) are classified under liabilities in the form of trade credits.

- **Other accounts receivable and payable**

    a. The asset side of this is primarily short term assets of commercial banks on international trade transactions,

    b. The liability side of this is outstanding payables on account of Asian Clearing Union (ACU) settlements, transactions of which are managed by the CBSL.

- **Special Drawing Rights (SDRs).**

    SDRs are reserve assets introduced by the IMF and allocated to member countries to supplement existing official reserves.

Reserves

- The reserve asset position of a country represents external assets that are **readily available and controlled by the monetary authority**:
  a. for meeting balance of payments requirements,
  b. for intervention in the foreign exchange market to prevent excessive volatility in the exchange rate,
  c. for maintaining the confidence in the currency and the economy,
  d. and serving as a basis for foreign borrowing

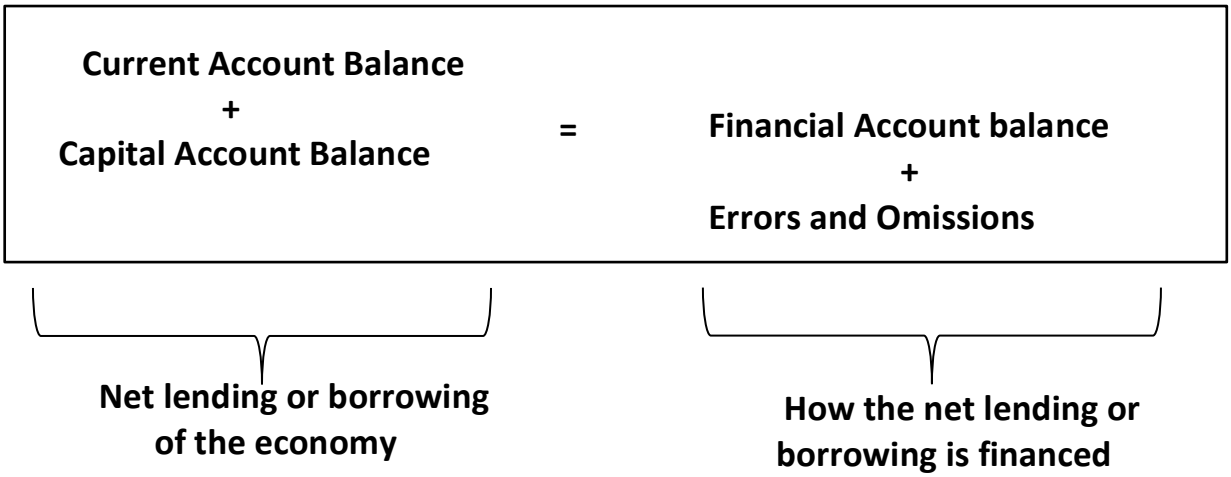
.

- 'Monetary movements' which are classified as a separate category under the previous format included transactions of 'reserve assets' and 'reserve related liabilities' managed by the Central Bank.
- 'In the new format 'monetary movements' are incorporated into the Financial Account, with foreign financial assets managed by the Central Bank being included separately as 'reserve assets'.

Structure of BOP Account (based on BOPM 6)

	Current Account				**XXX**
1	Trade Balance			XXX	
	Exports		XX		
	Imports		XX		
2	Services (net)			XXX	
	Receipts		XX		
	Payments		XX		
3	Primary Income (net)			XXX	
	Receipts		XX		
	Payments		XX		
4	Secondary Income (net)			XXX	
	Secondary income: credit		XX		
	Workers' remittances	XX			
	Government transfers	XX			
	Secondary income: debit		XX		
	Capital Account				**XXX**
	Capital account: credit			XXX	
	Capital account: debit			XXX	

	Current and Capital Account				**XXX**
	Financial Account				**XXX**
1	Direct Investment: Assets			XXX	
	Direct Investment: Liabilities			XXX	
2	Portfolio Investment: Assets			XXX	
	Debt securities		XX		
	Portfolio Investment: Liabilities			XXX	
	Equity securities		XX		
	Debt securities		XX		
3	Financial Derivatives			XXX	
4	Other Investment: Assets			XXX	
	Currency and deposits		XX		
	Trade credit and advances		XX		
	Other accounts receivable		XX		
	Other Investment: Liabilities			XXX	
	Currency and deposits		XX		
	Loans		XX		
	Central bank	XX			
	Deposit-taking corporations	XX			
	General government	XX			
	Other sectors	XX			
	Trade credit and advances		XX		
	Other accounts payable		XX		
	Special Drawing Rights (SDRs)		XX		
5	Reserve Assets			XXX	
	Monetary gold		XX		
	Special drawing rights		XX		
	Reserve position in the IMF		XX		
	Other reserve assets		XX		
	Currency and deposits	XX			
	Securities	XX			
	Net Errors and Omissions				**XXX**
					0
	Overall Balance				**XXXX**



Calculation of Overall Balance after the adoption of BPM6

- From 2014 Annual Central Bank report onwards the overall balance is no longer calculated from the BOP.
- According to the new format the **overall balance can only be calculated from the change in NIR (Net international reserve)**

Change in Net International Reserves	**=**	**Net reserve asset position at the end of period**	**-**	**Net reserve asset position at the beginning of period**

- The net reserve asset position is defined as the difference between the reserve asset position and the reserve related liability position.

Net Reserve Asset Position	**=**	**Reserve asset position (Official Foreign Reserves)**	**-**	**Reserve liability position (Outstanding Debt of CBSL)**

Double entry in international trade

- Principles to follow;
    a. When an item (good/service /asset) exported to another country it should be recorded as credit (+)
    b. When an item (good/service /asset) imported from another country it should be recorded as debit (-)

- There are 5 kinds of transactions reordered in BOP
    1. Goods & services imports and exports
        - ➢ Current A/C (Goods & services)
            - Exports (Credit /+)
            - Imports (Debit/-)
    2. Factor income receipts & payments
        - ➢ Current A/C (primary income)
            - Exports (Credit /+)
            - Imports (Debit/-)
    3. Unilateral transactions on assets, wealth & gifts
        - ➢ Current A/C (Secondary income)
            - Receipts (Credit /+)
            - Payments (Debit/-)
        - ➢ Capital A/C (capital transfers)
            - Receipts (Credit /+)
            - Payments (Debit/-)
    4. Acquisition and disposal of financial assets
        - ➢ Financial A/C (Direct investment or Portfolio investments)
            - Disposal (Credit /+)
            - Acquisition (Debit/-)
    5. Non- produced, non-financial assets acquisition and disposal
        - ➢ Capital A/C (capital transfers)
            - Disposal (Credit /+)
            - Acquisition (Debit/-)

Financial derivatives & other investments

- Other Investment is a broad category which includes:
    f. Currency and deposits
    g. Loans
    h. Trade credits and advances,
    i. Other accounts receivable and payable
    j. Special Drawing Rights (SDRs).

External resource gap

- External resource gap is the difference between foreign receipts on current account of BOP (excluding official current transfers) and all foreign payments.

- Foreign receipts are the summation of followings,
    I. Goods exports
    II. Service income receipts
    III. Primary income receipts
    IV. Private secondary income receipts (Current private transfer receipts)

- Foreign payments are the summation of followings,
    I. Goods imports
    II. Service payments
    III. Primary income payments
    IV. Private secondary income payment
    V. Private capital transfer payment
    VI. Loan repayment (Capital part)
    VII. Capital outflows (FDI and Portfolio investment outflows)
    VIII. Payments of Commercial banks

- External resource gap can be financed by following items,
    - Foreign grants
    - Foreign direct and portfolio investments
    - Long and short term borrowings by the government
    - Borrowings by the private sector
    - Using external / foreign assets of the country

Reasons for Sri Lanka's negative foreign resources gap

1. The value of imports being relatively greater than exports
2. Payments of primary income being relatively greater than the receipts of primary income
3. High debt payments
4. Increase of commercial bank's payments to foreign countries

Economic effects of a negative foreign resource gap

1. Decrease of amount of foreign assets
2. Has to borrow foreign loans
3. Decrease the external value of money
4. Decrease of money supply (As a result of reduction of Net foreign assets)
5. Increase of foreign debt service payment
6. Need to face for international debt crisis

Reserve Liability

- Reserve liability is the total outstanding debt of the Central Bank, excluding outstanding Special Drawing Rights (SDRs)

Reserve Assets/Foreign Assets/Foreign Reserves

- As at a particular day the amount of highly liquid foreign assets those are held by the government, central bank and commercial banks is known as foreign reserves.

	Foreign reserves held by Government	XXX
Add	Foreign reserves held by Central Bank	XXX
Add	Foreign reserves held by deposit taking corporations	XXX
	Total foreign reserves	XXX

- Sri Lanka currently hold its foreign assets mainly through hard currencies such as USD, Euro, Sterling pound, Japanese Yen

Official Foreign Reserves

- As at a particular day the amount of highly liquid foreign assets those are held by the government and central bank is known as foreign reserves.

Add	Foreign reserves held by Government	XXX
	Foreign reserves held by Central Bank	XXX
	Official foreign reserves (Gross Official Reserves)	XXX

Less	Total foreign reserves	XXX
	Foreign reserves held by Commercial Banks	XXX
	Official foreign reserves (Gross Official Reserves)	XXX

		US $ Million				
		2014	2015	2016	2017	2018
1	Government foreign assets	635	470	289	488	817
2	Central Bank foreign assets	7573	6834	5730	7470	6102
3	Gross official reserves (1+2)	8208	7304	6019	7959	6919
4	Foreign assets of deposit-taking corporations	1676	2033	2414	2478	2664
5	Total foreign assets (3+4)	9884	9337	8433	10436	9583
6	Reserve related liabilities	1691	2275	1490	1361	1425
7	Net International Reserves (NIR) (3-6)	6517	5029	4529	6597	5495
8	Overall balance	1369	-1489	-500	2068	-1103

Key mediums used by Central bank of SL to keep foreign reserves

a. Deposits in foreign banks

b. Monetary gold *(Monetary gold is gold owned by the authorities or by others who are subject to the effective control of the authorities and held as a reserve asset)*

c. Special drawing rights

d. Foreign Securities those are certified by foreign governments

Importance of foreign reserves for an economy

a. To finance BOP current and capital account balance
b. To maintain external stability of a currency
c. To control money supply and through that maintain internal stability of a currency
d. To pay short terms foreign loans
e. To face external/ global shocks
f. To face price volatiles in the global market
g. To promote foreign investment

Economic consequences of change in foreign reserves

Economic Consequences	
Improvement	Deterioration
1. Expansionary impact on Money supply	1. Contractionary impact on Money supply
2. Stabilizes external value of local currency	2. Deterioration of external value of local currency
3. improve international confidence in getting finances and loans	3. Lose international confidence in getting finances and loans
4. Reduce foreign debt burden	4. Increase foreign debt burden
5. improve import ability (in months)	5. Deterioration of import ability (in months)
6. Improve attractiveness of foreign investments	6. Lose attractiveness of foreign investments

Import ability of foreign reserves

- Import ability of foreign reserves is out of foreign reserves available at the end of a particular year, how many months of import expenditure can be covered.
- This is a measurement to measure adequacy of foreign reserves of an economy
- Import ability can be calculated either using gross foreign reserves or official foreign reserves

$$\textbf{Import ability of gross foreign reserves} = \frac{\text{Gross Foreign Reserves/ Assets}}{\text{Forecasted monthly import expenditure for the next year}}$$

Import ability of official foreign reserves	=	official Foreign Reserves/ Assets / Forecasted monthly import expenditure for the next year

	2011	2012	2013	2014	2015	2016	2017	2018
Gross Official Reserves in Months of								
Import of Goods	4	4.4	5.0	5.1	4.6	3.7	4.6	3.7
Import of Goods and Services	3.6	3.9	4.2	4.3	3.8	3.1	3.8	3.1
Total Reserves in Months of								
Import of Goods	4.7	5.4	5.7	6.1	5.9	5.3	6.0	5.2
Import of Goods and Services	4.3	4.7	4.8	5.1	4.9	4.3	4.9	4.3

Terms of Trade

- Terms of trade is **using one unit of exports number of import units that can be purchased**.
- In other words refers to TOT **import purchasing power of an export unit**.
- There are different terms of trade concepts;
    a. Commodity terms of trade/Goods trade ratio/Barter terms of trade
    b. Income terms of trade
    c. Single factor terms of trade

- The most widely used TOT measurement is commodity terms of trade that shows the relationship between import prices and export prices of an economy.

$$\text{Commodity TOT} = \frac{\text{Export Price Index}}{\text{Import Price Index}} \times 100$$

- In Sri Lanka export price index and import price index are prepared **only considering goods trade**. Therefore in Sri Lankan TOT, **services are excluded**.
- Central Bank of Sri Lanka, uses export and import ;
    a. Value Index
    b. Volume index and

c. Unit value index (price index)

- In calculating TOT unit value index (price index) is used.
- Import unit value index (import price index) represents weighted average price of all imported goods whereas export unit value index (export price index) represents weighted average price of all exported goods. Base year is 2010.

	2011	2012	2013	2014	2015	2016	2017	2018
Export Price Index	111.2	103.1	102.8	105.5	95.6	94.1	96.4	100.4
Import Price Index	122.3	115.2	109.8	108.1	95.3	90.5	91.3	95.1
TOT	90.9	89.5	93.6	97.6	100.3	104	105.5	105.6

Source: CBSL

- In the last 3 years **TOT has improved** due to **more than proportionate reduction in import prices than reduction in export prices.**

Changes in Terms of Trade

- There can have two changes in terms of trade:
  a. Unfavourable terms of trade (TOT depreciation)
  b. Favourable terms of trade (TOT appreciation)

Unfavourable Terms of Trade

- Unfavourable terms of trade refer to the decline or the deterioration of terms of trade.
- TOT depreciation can happen due to 5 main reasons.
  a. Export prices drop while import prices remain constant
  b. Import prices rise while export prices remain constant
  c. Export prices drop while import prices rise.
  d. Export prices drop more than proportionate times to drop in import prices.
  e. Import prices rise more than proportionate times to rise in export prices.

Economic consequences of unfavourable terms of trade

- Due to the reduction of import purchasing power of export unit, real national output drops.
- There will be unfavourable impact on BOP
- Ability to import falls

Favourable Terms of Trade

- Favourable terms of trade refer to the increase or the appreciation of terms of trade.
- TOT appreciation can happen due to 5 main reasons.
    a. Import prices drop while export prices remain constant
    b. Export prices rise while import prices remain constant
    c. Import prices drop while export prices rise.
    d. Import prices drop more than proportionate times to drop in export prices.
    e. Export prices rise more than proportionate times to rise in Import prices.

Economic consequences of favourable terms of trade

- Due to the Increase in import purchasing power of export unit, real national output rises.
- There will be favourable impact on BOP
- Ability to import rises

Limitation of terms of trade

- Commodity terms of trade only consider import purchasing power of one unit of import.
- Therefore terms of trade are not a perfect measurement to measure the "import purchasing power" of an economy.
- Import purchasing power of an economy should be measured in terms of total export earning rather than one unit of export.
- This is the limitation of terms of trade.

Income terms of trade

- To answer the limitations of net barter terms of trade (commodity terms of trade) G.S. Dorrance introduced the concept of income terms of trade.
- An income term of trade is import purchasing ability of total export income of the economy.

$$\text{Income terms of trade} = \frac{\text{Export Value Index}}{\text{Import Price Index}} \times 100$$

$$\text{Income terms of trade} = \frac{\text{Export price Index X Export quantity index}}{\text{Import Price Index}} \times 100$$

Change in income terms of trade

- When income terms of trade gets deteriorated import feasibility of the economy falls. Thus, it creates following economic consequences.
    a. Due to the reduction of import purchasing power of export income, real national output drops.
    b. There will be unfavourable impact on BOP
    c. Ability to import falls

- When income terms of trade gets appreciated import feasibility of the economy rises. Thus, it creates following economic consequences.
    a. Due to the Increase in import purchasing power of export income, real national output rises.
    b. There will be favourable impact on BOP
    c. Ability to import rises

Exchange Rate

- Exchange rate is the rate at which one currency exchange with anther currency.
- There are two ways of presenting exchange rate:
    a. Direct Method (Price quotation system)
    Presenting value of foreign currency in terms of local currency
    Ex;- 1USD = 130 LKR
    b. Indirect method (Volume quotation system)
    Presenting value of local currency in terms of foreign currency
    Ex;- 1LKR = 0.0076 USD

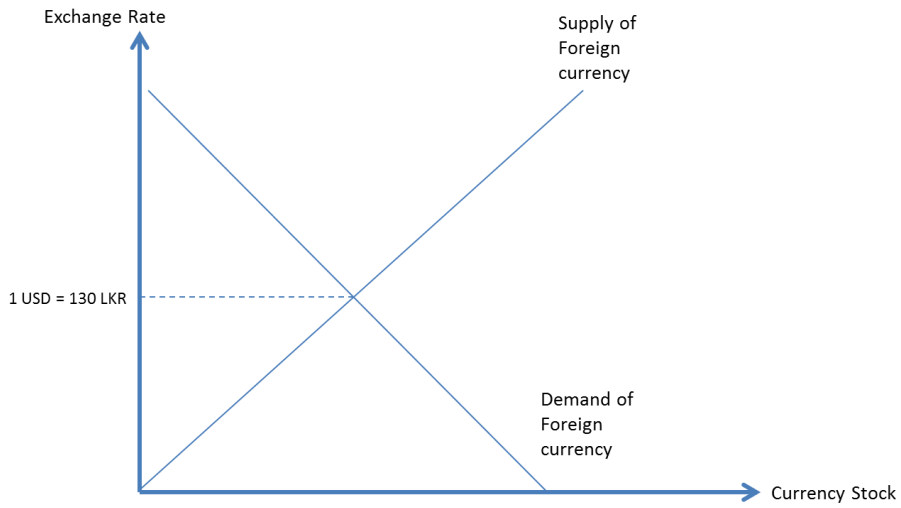
Exchange Rate Systems

- Exchange rate system is the system in which exchange rate is determined.
- There are main 3 exchange rate systems:
    a. Free float exchange rate system
    b. Manage float exchange rate system/ Controlled float exchange rate system

c. Controlled exchange rate system/ fixed exchange rate system

Free Float Exchange Rate Systems

- This is the exchange rate system that **determine exchange rate between two currencies purely based on the supply and demand for a particular currency relative to other currencies in foreign exchange market**.
- Demand for a particular currency is mainly created by **exports** and other international transactions those make people to exchange foreign currency for local currency.
- Supply for a particular currency is mainly created by **imports** and other international transactions those make people to exchange local currency for foreign currency.
- Therefore, free float exchange rate system is purely based on international trade transaction of a particular country with rest of the world.
- Countries generally permit a free float only as a temporary solution, because it could result in excessive fluctuations.



Factors affecting to demand and supply in the currency market

a. Trade flows (Exports & imports)

b. Long term capital flows (Ex;- FDI)

c. Financial flows based on speculation motive (ex;- portfolio investments)

d. Expectations & speculations

e. Interest rates

f. Domestic economic changes (ex;- Inflation, changes in fiscal financial management)

Change in exchange rates under free float exchange rate system

- Increase or decrease in exchange rate under flexible exchange rate system can be stated as change in exchange rates.
- It can happen in two ways as,
    1. Decrease or depreciation of exchange rate
    2. Increase or appreciation of exchange rate

Depreciation

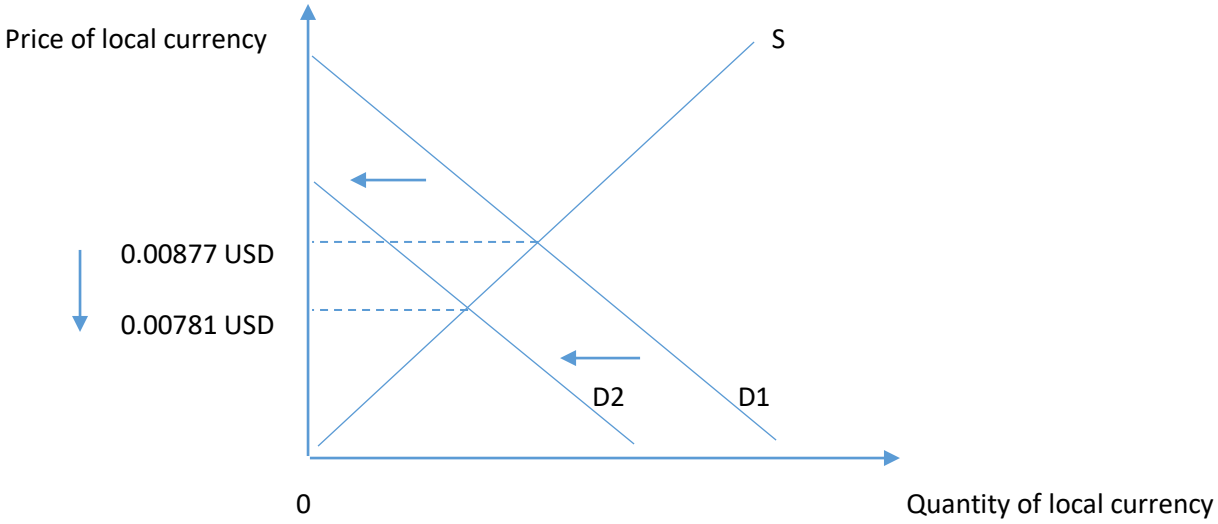
- Depreciation of a currency is a situation where value of a particular currency reduces in terms of any other currency due to changes that happens in the foreign exchange market.
- This is not a deliberate act of financial authority (CBSL).
- During depreciation the impact on local currency and foreign currency can be shown as below,
    - Amount of foreign currency required to buy a unit of local currency reduces

      Before depreciation – Rs. 1 = $ 0.00877

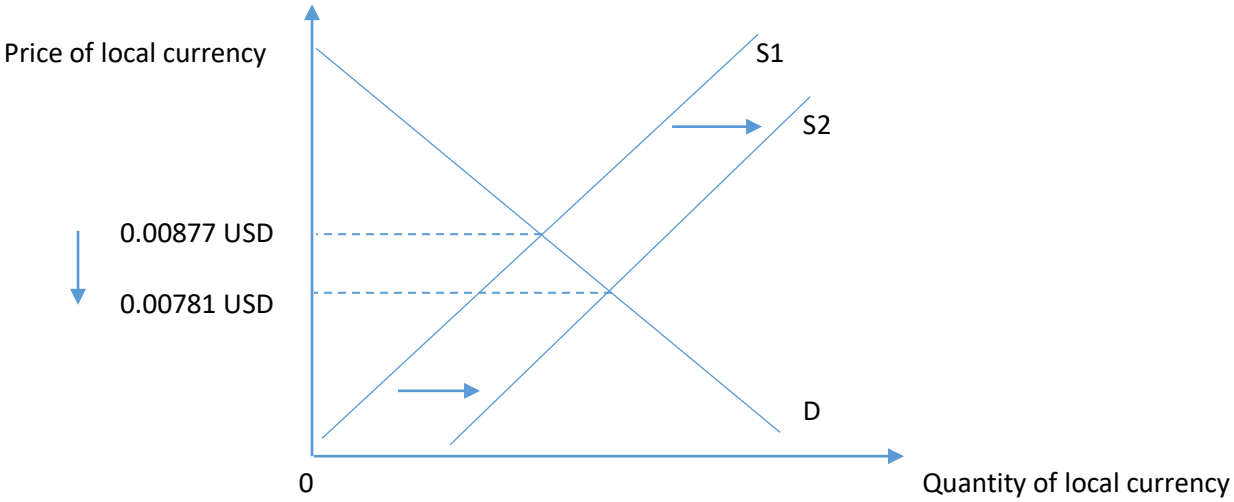
      After depreciation – Rs. 1 = $ 0.00781
    - Amount of local currency required to buy a unit of foreign currency increases.

      Before depreciation - $ 1 = Rs. 100

      After depreciation - $ 1 = Rs. 114
- Depreciation of a currency can happen due to various reasons but mostly due to changes in demand and supply for currency based on changes of exports and foreign receipts and imports and foreign payments.
- For depreciation to happen through exports and other foreign receipts, the demand for local currency on exports and foreign receipts should reduce resulting a downward shift of rupee demand curve.



- For depreciation to create through imports and foreign payments, the supply of local currency on imports and foreign payments should increase.
- This will cause the local currency supply curve to shift to right by reducing the value of currency.



Appreciation

- Appreciation refers to a situation where value of currency increases in terms of value of other currencies that may result due to a changes in foreign currency market.
- This is not a deliberate act of financial authority (CBSL).
- During depreciation the impact on local currency and foreign currency can be shown as below,
    - Amount of foreign currency required to buy a unit of local currency increases

Before appreciation – Rs. 1 = 0.00781

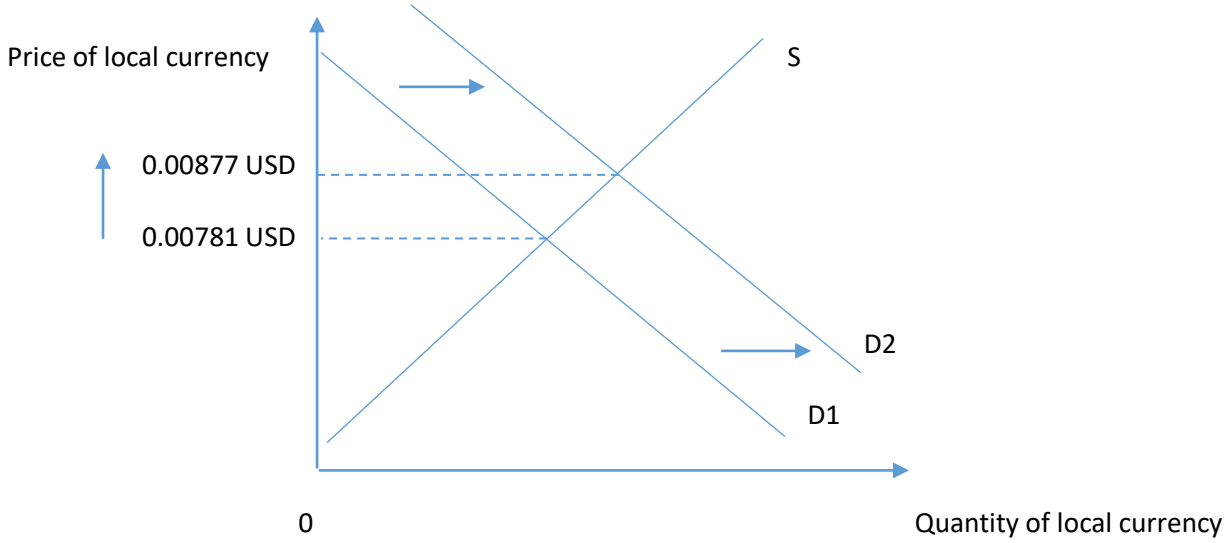
After appreciation - Rs.1 = 0.00877

- Amount of local currency required to buy a unit of foreign currency reduces

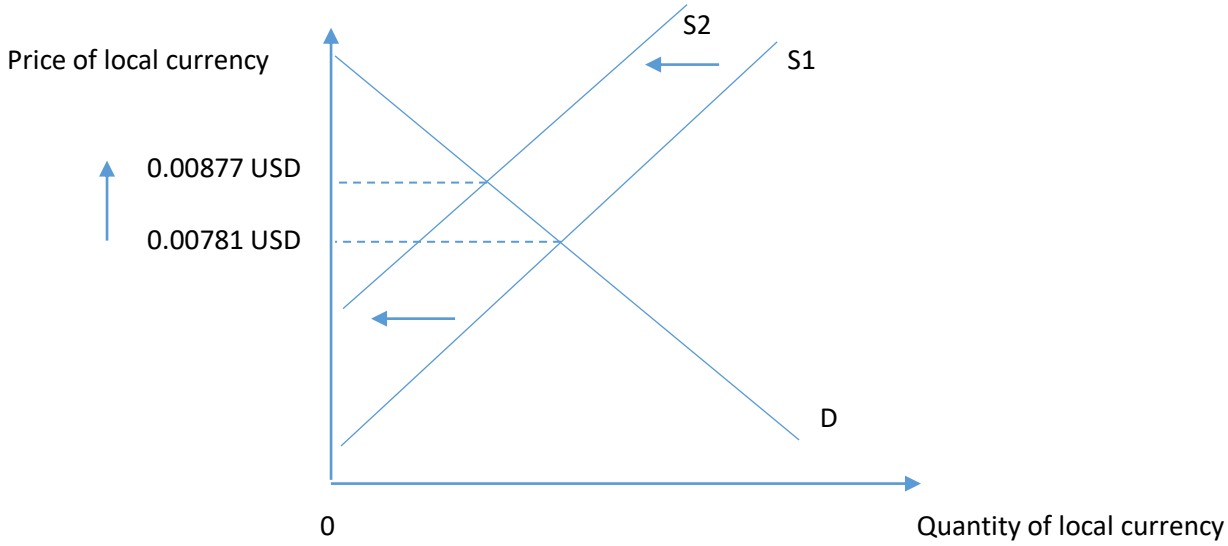
Before appreciation – $1 = Rs. 114

After appreciation - $1 = Rs. 100

- Appreciation of local currency can happen due to many factors but mainly it is created through trade flows (imports and exports) and other foreign receipts and payments.
- Local currency to appreciate due to exports and foreign receipts, the demand for local exports and foreign receipts should increase by shifting the local currency demand curve to right.



- For appreciation to create through imports and foreign payments, the supply of local currency on imports and foreign payments should be decreased.
- This will shift local currency supply curve to left.



Short note: -

Trade flow	Local currency		Value of local currency
Exports	Demand	Supply	Appreciate
	Increase	No change	
	Decrease		Depreciate
Imports	No change	Increase	Depreciate
		Decrease	Appreciate

Merits and Demerits of Free Float Exchange Rate Systems

Merits

1. Automatic balance of payments adjustment

- Any balance of payments disequilibrium will tend to be rectified by a change in the exchange rate.
- For example, if a country has a balance of payments deficit then the currency should depreciate. This is because imports will be greater than exports meaning the supply of LKR on the foreign exchanges will be increasing as importers sell LKR to pay for the imports.
- This will drive the value of the LKR down. The effect of the depreciation makes SL exports cheaper and imports more expensive. Thus increasing demand for SL goods abroad and reducing demand for foreign goods in SL.
- Therefore, dealing with the balance of payments problem.

- Conversely, a balance of payments surplus should be eliminated by an appreciation of the currency.

2. Freeing internal policy
    - With a floating exchange rate, balance of payments disequilibrium should be rectified by a change in the external price of the currency.
    - Therefore the floating rate allows governments freedom to pursue their own internal policy objectives such as growth and full employment without external constraints.
3. Absence of crises
    - Fixed rates are often characterized by crises as pressure mounts on a currency to devalue or revalue. The fact that, with a floating rate, such changes are automatic should remove the element of crisis from international relations.
4. Flexibility to face external shocks such as oil price hikes
5. Lower foreign exchange reserves
    - A country with a fixed rate usually has to hold large amounts of foreign currency in order to prepare for a time when they have to defend that fixed rate. These reserves have an opportunity cost.

Demerits

1. Uncertainty
    - The fact that a currency changes in value by the day creates instability or uncertainty into trade.
    - Sellers may be unsure of how much money they will receive when they sell abroad or what their price actually is abroad.
    - In a similar way importers never know how much it is going to cost them to import a given amount of foreign goods.
    - This uncertainty can be reduced by hedging the foreign exchange risk on the forward market.
2. Lack of investment due to uncertainty of currency value
3. Speculation
    - Due to uncertainty speculation will tend to be an inherent part of a floating system and it can be damaging and destabilizing the economy.
4. Lack of discipline in economic management

- Due to lack of control to financial authority in floating exchange rate often there will be lack of discipline in economic management.

Fixed Exchange Rate Systems/Pegged exchange rate system

- This is the exchange rate system that **ties the official exchange rate of a country to another country's currency or to a basket of other currencies, or to another measure of value, such as gold.**
- A fixed exchange rate is usually used to stabilize the value of a currency against the currency it is pegged to.
- Fixed exchange rate system is often useful for small economies in which external trade contributes a large part of their GDP.
- Further fixed exchange rate system can be used as a mechanism to control inflation, in the countries where imported goods plays a big role.

Types of fixed exchange rate systems

1. The gold standard
    - Under this system, financial authority of each economy (Central Bank) declares that it will exchange local currency for a certain weight in gold. Based on these declarations exchange rates are determined.

      Ex;- A £1 gold coin in the United Kingdom contained 113.0016 grains of pure gold, while a $1 gold coin in the United States contained 23.22 grains. Thus, the exchange rate of £ is $4.87 (R = $/£ = 113.0016/23.22).

2. Reserve currency standard
    - This is the system where, financial authority of an economy (Central Bank) fixes its own currency value to a unit of another country's currency.
    - Under this system, the currency of another country performs the functions that gold has in a gold standard.
    - To fix the local currency generally a currency that is prominently used in international transactions or is the currency of a major trading partner is used.

      Ex:- if SL decided to fix its currency to the dollar at the exchange rate Rs./$ = 45.0. To maintain this fixed exchange rate, the CBSL would need to hold dollars on reserve and stand ready to exchange rupees for dollars (or dollars for rupees) on demand at the specified exchange rate

Changes in exchange rate under fixed exchange rate system

- Increase or decrease of exchange rate under a deliberate act of financial authority (CBSL) can be identified as change in exchange rates under fixed exchange rate system.
- There are two changes of exchange rate,
    1. Devaluation of exchange rate
    2. Revaluation of exchange rate

Devaluation

- Devaluation is the reduction of value of local currency in terms of foreign currency due to a deliberate act of financial authority.
- This is mostly created by financial authority in order to encourage exports and discourage the amount of imports of the country by expecting a positive balance in the BOP (In order to counter problems with regards to BOP).

Revaluation

- Revaluation is the increase of value of local currency in terms of foreign currency due to a deliberate act of financial authority.
- This is created in a situation where country faces extra surplus in trade account in BOP by the financial authority by expecting to reduce exports, increasing imports and minimizing the BOP positive balance.

Merits and Demerits of Fixed Exchange Rate Systems

Merits

1. Reduced risk in international trade
    - By maintaining a fixed rate, buyers and sellers of goods internationally can agree a price and not be subject to the risk of later changes in the exchange rate before contracts are settled. The greater certainty should help encourage investment.
2. Means to control inflation (reduce cost push inflation through imports)
    - In a country where there is a higher contribution of imports inflation can be controlled through fixed exchange rate system since fluctuations of imports prices due to changes in exchange rates can be eliminated .
3. Introduces discipline in economic management
4. Fixed rates should eliminate destabilizing speculation

- Speculation flows can be very destabilizing for an economy and the incentive to speculate is very small when the exchange rate is fixed since exchange rate is predictable.

Demerits

1. No automatic balance of payments adjustment
2. Large holdings of foreign exchange reserves required
3. Loss of freedom in your internal policy
4. Fixed rates are inherently unstable since financial authority has to hold large amount of reserves

Manage Float Exchange Rate Systems/ Dirty float exchange rate system

- This is the exchange rate system that **financial authority set a fixed exchange rate and let it float within a specific regime. If free float crosses either upper limit or the lower limit of the set regime financial authority intervene to correct the exchange rate through foreign currency buying and selling in the open market.**
- This is an exchange rate system that provides benefits of both fixed exchange rate system and free float exchange rate system.
- Since this system does not allow free float (clean float) to take place fully, this system is also known as a dirty float.
- Under this system, in the short run financial authority intervene to adjust exchange rate. However, let the free float to take place in the long run.

Ex:- India, Pakistan, Egypt, Indonesia, Malaysia, Sri Lanka, Singapore, Thailand, Australia, Canada, Jamaica, Japan, the Philippines, the United States

Exchange rate types

1. Nominal exchange rate (Bi – lateral exchange rate)

- Nominal exchange rate is the rate at which one country's currency exchanged with another country's currency.
- This exchange rate is established by considering the demand and supply between two currencies and is mainly decided by the international trade transactions.

  EX: 1 USD = 150 LKR

  1 USD = 200 LKR

  1 INR = 3 LKR

2. Real exchange rate

- Real exchange rate is inflation adjusted nominal exchange rate in order to reflect the changes of price levels between countries.
- Real exchange rate is calculated as follows,

$$RER = NER (P_d/P_f)$$

RER – real exchange rate

NER – nominal exchange rate (presented as indirect method)

Pd – domestic price level (domestic price index)

Pf – foreign country's price level (foreign price index)

3. Nominal effective exchange rate

- Nominal effective exchange rate (NEER) is the value of the local currency in terms of weighted average value of a currency basket, which is normally presented as an index value.
- In Sri Lanka for the calculation of NEER, 24 currencies of Sri Lanka's main competitors and partners are used and the weight is given based on the importance of that country for Sri Lanka in foreign trade.
- Nominal effective exchange rate is calculated using following equation,

$$NEER = \sum^{24} (e/e_i)^{w}$$

NEER – Nominal effective exchange rate

∑ - Summation (of 24 currencies)

E – Nominal exchange rate of Sri Lankan rupee against American dollar

Ei – Nominal exchange rate of 24 currencies (partners and competitors) against American dollar

W – Weight based on importance of each country's contribution/importance to Sri Lanka's foreign trade

4. Real effective exchange rate

- Real effective exchange rate (REER) is inflation adjusted nominal effective exchange rate in order to reflect the change of price levels of a particular country (local) and its main trade competitors and partners.
- Thereby, in calculating REER, both nominal exchange rate and the price levels of all the countries which are identified as the main trade competitors and partners of a country should be considered.
- REER is calculated using the following equation,

$$REER = \sum^{24} (e/e_i)\,(p/p_f)^{w}$$

REER – Real effective exchange rate

∑ - Summation (24 currencies)

E – Nominal exchange rate of Sri Lankan rupee against American dollar

Ei – Nominal exchange rate of 24 currencies (partners and competitors) against American dollar

W – Weight based on importance of each country's contribution/importance to Sri Lanka's foreign trade

P – Domestic price level (domestic price index)

Pf – Foreign country's price level (foreign price index)

5. Purchasing power parity exchange rate

- If exchange rate is calculated based on purchasing power parity (PPP) it is called purchasing power parity exchange rate (PPP$).
- In other words, exchange rate is calculated by considering the amount of money that has to be spend in two different countries in order to purchase the same basket of goods and services.
- This is mainly used in calculating per capita income of a country.

For extra knowledge: -

- There are two types of exchange rates used on foreign exchange market in exchanging foreign currency,

  1. Spot exchange rate
  2. Forward exchange rate

Spot exchange rate

- This is the exchange rate that is used for many foreign currency transactions at present.
- This exchange rate is limited to a one transaction.
- As an example, the spot exchange rate has been announced as 158 LKR for 1 USD in February 10th 2018 at 9.00 a.m. and as 159 LKR for 1 USD in February 10th 2010 at 3.00 p.m.

Forward exchange rate

- If any party decides to enter to a foreign currency transaction not at the currently announced (spot) exchange rate but to an exchange rate in the future that is called as forward exchange rate.
- In other words, if any party decides to enter in to a contract with a foreign market dealer to sell or buy foreign currency at a future exchange rate, then that exchange rate is called as forward exchange rate.

- If forward exchange rate is used for foreign currency transactions and if the spot exchange rate changes in a way which is negative to the customer, through this the customer gets the ability to sell his foreign currency at the pre – agreed price (forward exchange rate) without any impact.
- Mostly the forward exchange rate agreements are in between 30, 90 and 190 days of time periods.

Economic consequences of currency depreciation or devaluation

1. Encourage exports
2. Discourage imports
3. Favourable impact on BOP current account

Economic consequences of currency appreciation or revaluation

1. Discourage exports
2. Encourage imports
3. Unfavourable impact on BOP current account

Factors affecting the effectiveness of currency devaluation

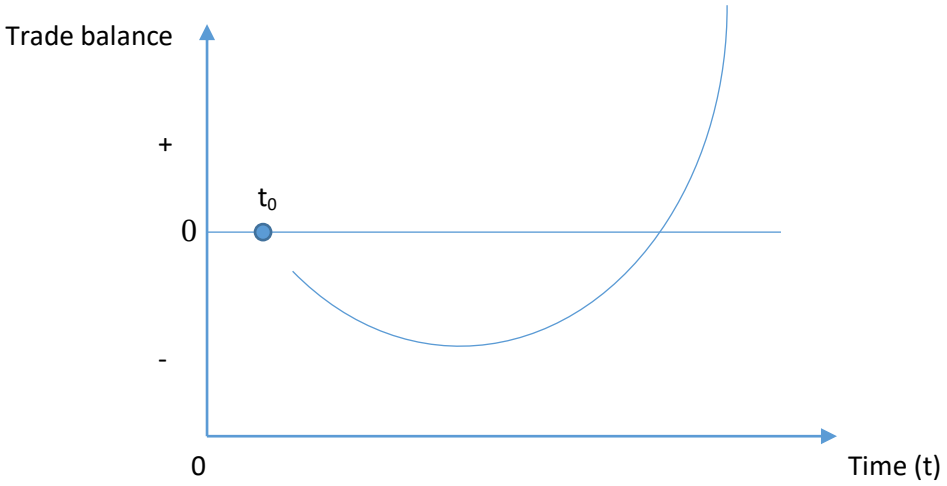
There are 5 factors those make desirable impact through currency devaluation.

1. Export demand should be elastic
2. Export supply should be elastic
3. Import demand should be elastic
4. Local inflation should be controlled
5. Competitive countries should not devalue its currencies.

For extra knowledge: -

- Although by having above mentioned factors that creates an effective impact on trade balances and BOP, just after by currency devaluation it may not create any significant positive impact on trade balance.
- The reasons behind this can be stated as that when currency gets devaluated, just after devaluation when the export demand rises, local suppliers may not have an ability to supply to that required level within that shorter period of time although export supply is elastic.
- At the same time, with currency devaluation local buyers might not stop their importing from foreign countries within a very short time period, thus it may also take a considerable time for imports to get discouraged with currency devaluation although import demand is elastic.

- So, when looking at above factors it can be seen that just after currency gets devaluated it may not create a significant effectiveness on trade balances but after a considerable time period it'll start to show a positive impact on trade balances.
- This impact created with currency devaluation is called as the 'J – curve effect' in economic theories.
- This is shown by the following diagram,



(J – curve)

Factors affecting exchange rates

1. International trade
2. Capital mobility
3. Price volatility
4. Speculation
5. Economic strength
6. Government policies
7. Political factors
8. Share market transactions

Summary note

Depreciation	Appreciation
Definition • Loss of value of a currency with respect to a foreign currency due to market forces • Typically takes place in a floating exchange rate system	***Definition*** • Improvement of value of a currency with respect to a foreign currency due to market forces • Typically takes place in a floating exchange rate system

Reasons • Changes in international trade • High interest rate differentials • Political instability • Risk aversion among investors ***Economic Consequences*** • Encourage Exports • Discourage Imports • Favourable impact on BOP	***Reasons*** • Changes in international trade • High capital inflows • Political stability • Favourable speculation among investors ***Economic Consequences*** • Encourage Imports • Discourage Exports • Unfavourable impact on BOP

Currency Devaluation and Currency Revaluation

Devaluation	Revaluation
Definition • Loss of value of a currency with respect to a foreign currency due to deliberate downward adjustment of financial authority • Typically takes place in a fixed exchange rate system ***Reasons*** • To get advantage against competitive countries in the international trade. • Boost aggregate demand in the economy in an effort to fight unemployment • In order to sustain a fixed exchange rate, a country must have sufficient foreign exchange reserves, (often dollars), and be willing to spend them, to purchase all offers of its currency at the established exchange rate. If financial authority unable to sustain fixed exchange rate (run out of reserves), they have to devalue its currency. ***Economic Consequences*** • Encourage Exports • Discourage Imports • Favourable impact on BOP	***Definition*** • Improvement of value of a currency with respect to a foreign currency due to deliberate upward adjustment of financial authority • Typically takes place in a fixed exchange rate system ***Reasons*** • Reduce a current account surplus • To contain inflationary pressures. ***Economic Consequences*** • Encourage Imports • Discourage Exports • Unfavourable impact on BOP

Practice Questions

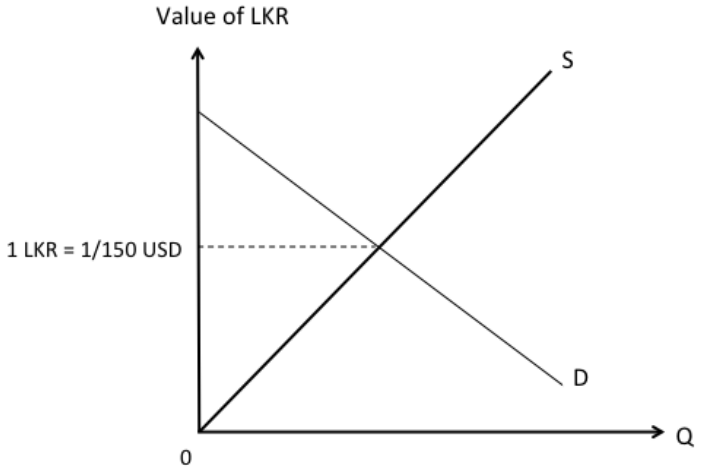
1. Below information has been extracted from a hypothetical economy. Using the information given answers the questions below.

	US $ millions	
	Credit	Debit
Commercial Loans	100	40
Direct investments	10	8
Garments	8	22
Employment earnings	20	6
Foreign Remittance	10	2
Interest	8	2
Dividends	24	12
Non monetary Gold	10	4
Official Transfers	6	2
Foreign Grants	0	2
Tea	20	44
Transport	20	8
Construction	8	24
Intellectual Property	6	4
Coconut	16	6
Tourism	18	8
Foreign Aid	0	10

Calculate

a. Trade Account Balance (01 mark)
b. Services Account Balance (01 mark)
c. Primary income Account Balance (01 mark)
d. Secondary income Account Balance (01 mark)
e. BOP Current Account Balance (01 mark)
f. Capital Account Balance (01 mark)
g. Financial Account Balance (01 mark)
h. Net lending/ borrowing position (01 mark)

2.



Suppose above diagram shows current exchange rate between Sri Lankan rupee (LKR) and US Dollar (USD).

Show the new exchange rate between Sri Lankan rupee (LKR) and US Dollar (USD) using a diagram due to below changes in the Sri Lankan economy, if Sri Lanka has free-float exchange rate system (Diagrams are not required to draw for the exact scale)

Consider following two events are mutually exclusive.

a. If all other factors being constant import value of Sri Lanka increased by 10%.
b. If all other factors being constant import value of Sri Lanka decreased by 10%.
c. If all other factors being constant export value of Sri Lanka increased by 10%.
d. If all other factors being constant export value of Sri Lanka decreased by 10%.
e. If all other factors being constant export value increase by 20% and import value increased by 10%

3. How do you record the following transactions in the Balance of payments in Sri Lanka using double entry principle?

a. A Sri Lankan creative designing firm makes some designs and sells that to a foreign fashion company for $ 10,000.
b. Sri Lanka provides water bottles worth of $ 5,000 to Bangladeshi as flood relief.
c. A Sri Lankan artist works with an art glary in France on employment contract and earns $ 2000 monthly earning.
d. A Sri Lankan shipping line receives $3,000 from a Chinese company for transporting a shipping container from Sri Lanka to China.
e. A Dubai investor invest $ 2 million in Sri Lankan sovereign bonds
f. Local jewelry manufacturing firm import $ 50,000 worth of gold from Dubai.
g. A Sri Lankan company gets a foreign currency loan of $ 10 million from bank in USA to invest in BOI project partnering a foreign company.
h. Foreign company invests $ 5 million in an IPO (initial public offering) of a Sri Lankan company to obtain 15% of voting shares.
i. Central Bank of Sri Lanka pays a $ 10 Million interest payment to IMF loan that they obtained.
j. A leading Sri Lankan software company pays a $5 million payment to buy a patented operating software system from a Ukrainian company.
k. A Sri Lankan worker who is currently working in middle east sends a part of monthly salary $ 2000 to his family in Sri Lanka.

4. How do you record the following transactions in the Balance of payments in Sri Lanka using double entry principle?

   a. A restaurant chain purchases Rs. 1 million worth of giant tiger prawns from an American Seafood Company.
   b. A foreign investor buys Rs. 300 million worth of shares of a John Keels Holdings (JKH), which is the largest conglomerate in Sri Lanka.
   c. A vehicle manufacture produces too many cars of its new model. The surplus cars that did not sell in that year were added to the inventories.
   d. A local music producer sells the copyrights of his latest album for Rs.2 million to an Indian record distributor.
   e. A local financial company pays 10 million as the interest of their loans to a foreign investment bank.
   f. Sri Lankan government collect 500 million value added tax on goods and services produced in this year.

Past Papers

A/L 2016

1. How do you record the following transactions in the Balance of payments in Sri Lanka using double entry principle?

   (a). A Chinese investor buys stocks worth of $ 10 million at the Colombo securities Exchange.

   (b). A Sri Lanka housemaid working in the middle East sends $ 500 to her parents in Sri Lanka.

   (C). A Sri Lankan bank receives $ 40 million by selling bonds in foreign financial markets.

   (d). A Sri Lankan publishing company obtains the copyright of a best-selling book in the world for $ 5 000 from an American publisher to translate and sell it in Sri Lanka. (04 marks)

2. Draw an appropriate diagram to show the determination of the external value of Sri Lankan Rupee in terms of US dollars under a floating exchange rate system. Explain why the demand curve is downward sloping and the supply curve is upward sloping in this foreign exchange market. (04 marks)