MANAGERIAL ECONOMICS

Balance of Payment

Topic 7

ITM BUSINESS SCHOOL
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The Balance of Payments: Meaning

The BOP can be defined as **a statement of all economic transactions** between **the residents of a nation** and the **rest of the world** during **a period of time**, usually one year.

Debit & Credit

- In this accounting system, both sides of a transaction 'debit' and 'credit' are recorded.

Economic Transactions

- **'Economic transactions'** include all the transactions that involve the **transfer of title or ownership of goods, services, money and assets between the residents of a country and the rest of the world.**

Residents

- **'Residents'** means the nationals of the reporting country. Diplomatic staff, foreign military personnel, tourists, migratory workers and branches of the foreign companies are not treated as the 'residents' even though they works and operate in the reporting country.

The Balance of Payments: Purpose

The purpose of BOP accounting is to take the **stock of country's foreign receipts and payment obligations and of assets and liabilities arising out of international economic transactions** with **a view to taking stock of gains and losses of foreign transactions and to correcting unhealthy trends.**

International Economic Status

It yields necessary information on the strength and weakness of the country in international economic status.

Capital Movements

Whether composition and direction of international trade and capital movements have improved or caused deterioration in the economic condition of the country.

Future Policy

BOP statements give warning signals for future policy formulation.

The Balance of Payments Accounts

Current Account

- Current transactions include **export and import of goods and services**, i.e., **visible and invisible trade**, unrequited (non-repayable) receipts and payments in the current year.

Capital Account

- Capital transactions include **inflows and outflows of capital** including foreign investments, gold transfers, and foreign exchange reserves.

Distinctive Features Current and Capital Account

Current Account

- Current transactions **change (increase or decrease) the current level of consumption** of the country or **change the current level of its nominal income.**
- Current transactions are of **flow nature**

Capital Account

- Capital transactions **change the capital stock** of the country,
- Capital transactions are mostly of **stock nature**

Structure of Balance of Payments: Basic Principles

According to the RBI statement of Balance of Payment Account;

A) Current Account
A.1) Merchandise
A.1.a.Export
A.1.b. Import
A.2) Invisibles
A.2.a) Services
A.2.a.1) Travel
A.2.a.2)Transportation
A.2.a.3) Insurance
A.2.a.4)Government not included elsewhere
A.2.a.5) Miscellaneous
A.2.a.5.a) Miscellaneous- of which Software Services
A.2.a.5.b) Business Services
A.2.a.5.c) Financial Services
A.2.a.5.d) Communication Services
A.2.b) Transfers
A.2.b.1) Official Transfers
A.2.b.2) Private Transfers
A.2.c) Income
A.2.c.1) Investment Income
A.2.c.2) Compensation of Employees

Current Account

Merchandise	• credit relate to export of goods while merchandise debit represent import of goods.
Travel	• covers expenditure incurred by non-resident travellers during their stay in the country and expenditure incurred by resident travellers abroad.
Transportation	• covers receipts and payments on account of international transportation services.
Insurance	• comprises receipts and payments relating to all types of insurance services as well as reinsurance.

Current Account

Government

- not included elsewhere (G.n.i.e.) relates to receipts and payments on government account not included elsewhere as well as receipts and payments on account of maintenance of embassies and diplomatic missions and offices of international institutions.

Miscellaneous

- covers receipts and payments in respect of all other services such as communication services, construction services, software services, technical know-how, royalties etc.

Transfers (official, private)

- represent receipts and payments without a quid pro Quo.

Current Account

Investment Income Receipts

- Comprise interest received on loans to non-residents, dividend/profit received by Indians on foreign investment, reinvested earnings of Indian FDI companies abroad, interest received on debentures, Commercial Papers (CPs), fixed deposits and funds held abroad of foreign currency loans/export proceeds, payment of taxes by nonresidents/ refunds of taxes by foreign governments, interest/discount earnings on RBI investment etc.

Investment Income Payments

- Comprise payment of interest on non-resident deposits, payment of interest on loans from non-residents, payment of dividend/profit to non-resident share holders, reinvested earnings of the FDI companies, payment of interest on debentures, fixed deposits, Government securities, charges on Special Drawing Rights (SDRs) etc.

Current Account: Debits and Credits

All the transactions included in the current account have their 'credit' and 'debit' counterparts. The **credit** column shows the **'receivables'** and **debit** column shows' the **'payables'.**

Balance of Payments: Current Account			
Transactions	Credit	Debit	Net Balance (+) or (-)
I. Merchandise Trade	Exports	Import	
2. Foreign Travel	Earnings	Payments	
3. Transportation (Shipping)	Earnings	Payments	
4. Insurance Premium	Receipts	Payments	
5. Banking	Receipts	Payments	
6. Investment Income	Receipts	Payments	
7. Government (Purchase and Sale of Goods and Service)	Receipts	Payments	
8. Miscellaneous**	Receipts	Payments	
** Includes motion picture royalties, telephone and telegraph services, fees for copyrights and consultancy, etc.			

Current Account: Debits and Credits

Debits: Transactions that expend or use up foreign exchange are recorded as debits and are entered with a minus (-) sign.

- The best example here is of import of goods and services from foreign countries.
- When Indian residents buy machinery from US or perfumes from France, foreign exchange is spent and the import is recorded as a debit.
- Similarly, when Indian residents purchase foreign services, foreign exchange is used and the entry is recorded as a debit.

Current Account: Debits and Credits

Credit transactions are those that earn foreign exchange and are recorded in the balance of payments with a plus (+) sign.

- Selling either real or financial assets or services to nonresidents is a credit transaction.
- For example, the export of Indian made goods earns foreign exchange for us and is, hence, a credit transaction.
- Borrowing abroad also brings in foreign exchange and is recorded as a credit.
- An increase in accounts payable due to foreigners by Indian residents has the same BOP effect as more formal borrowing in the world's capital market.
- The sale to a foreign resident of a service, such as an airline trip on Air India or 'hotel booking' in an Indian hotel, also earns foreign exchange and is a credit transaction.

Current Account: Debits and Credits

The BOP's accounting principles regarding debits and credits can be summarised as follows:

1. **Credit Transactions (+)** are those that involve the receipt of payment from foreigners. The following are some of the important credit transactions:

- Exports of goods or services
- Unilateral transfers (gifts) received from foreigners
- Capital inflows

2. **Debit Transactions (-)** are those that involve the payment of foreign exchange i.e., transactions that expend foreign exchange. The following are some of the important debit transactions:

- Import of goods and services
- Unilateral transfers (or gifts) made to foreigners
- Capital outflows

Balance of Trade (BOT)

The 'net balance' of the visible trade, that is, the difference between exports (X) and imports (M) of goods is called trade balance.

If X > M, it shows trade surplus, and
If M > X, it means trade deficit.

- The sum of the 'visible net' and 'invisible net' gives the balance on the current account. In general usage it is called 'current account balance.
- If sum of the entries in the 'credit' column is greater than that of the 'debit' column, it shows a current account surplus, and
- if sum of 'credit' items is less than that of the 'debit' items, it shows. a current account deficit.
- **The current account balance (surplus or deficit)** is transferred to the capital account.

Capital Account

B) Capital Account
B.1) Foreign Investment
B.1.a) Foreign Direct Investment
B.1.a.1) Foreign Direct Investment in India
B.1.a.1.a) Foreign Direct Investment in India - Equity
B.1.a.1.b) Foreign Direct Investment in India - Reinvested Earnings
B.1.a.1.c) Foreign Direct Investment in India - Other Capital
B.1.a.2) Foreign Direct Investment Abroad
B.1.a.2.a) Foreign Direct Investment Abroad - Equity
B.1.a.2.b) Foreign Direct Investment Abroad - Reinvested Earnings
B.1.a.2.c) Foreign Direct Investment Abroad - Other Capital
B.1.b.1) Foreign Portfolio Investment
B.1.b.1.a) Foreign Portfolio Investment in India
B.1.b.1.a.1) Portfolio Investment in India of which FIIs
B.1.b.1.a.2) Portfolio Investment in India of which GDRs/ADRs

Capital Account

B.1.b.2) Foreign Portfolio Investment Abroad
B.2) Loans
B.2.a) External Assistance
B.2.a.1) External Assistance by India
B.2.a.2) External Assistance to India
B.2.b) Commercial Borrowings (MT & LT)
B.2.b.1) Commercial Borrowings by India
B.2.b.2) Commercial Borrowings to India
B.2.c) Short Term Credit to India
B.2.c.1) Suppliers' Credit >180 days & Buyers' Credit
B.2.c.2) Suppliers' credit up to 180 days
B.3) Banking Capital
B.3.a) Commercial Banks
B.3.a.1) Assets of Commercial Banks
B.3.a.2) Liabilities of Commercial Banks
B.3.a.2.a) of which : Non-Resident Deposits of Commercial Banks
B.3.b) Others
B.4) Rupee Debt Service
B.5) Other Capital
C) Errors and Omissions
D) Overall Balance (A+B)

Capital Account

Foreign investment has two components, namely, foreign direct investment and portfolio investment.

- Foreign direct investment (FDI) to and by India up to 1999-2000 comprise mainly equity capital. In line with international best practices, the coverage of FDI has been expanded since 2000-01 to include,besides equity capital reinvested earnings (retained earnings of FDI companies) and 'other direct capital' (intercorporate debt transactions between related entities).
- Data on equity capital include equity of unincorporated entities (mainly foreign bank branches in India and Indian bank branches operating abroad) besides equity of incorporated bodies.

Capital Account

Foreign investment has two components, namely, foreign direct investment and portfolio investment.

- Data on reinvested earnings for the latest year are estimated as average of the previous two years as these data are available with a time lag of one year. In view of the above revision, FDI data are not comparable with similar data for the previous years. In terms of standard practice of BoP compilation, the above revision of FDI data would not affect India's overall BoP position as the accretion to the foreign exchange reserves would not undergo any change. The composition of BoP, however, would undergo changes. These changes relate to investment income, external commercial borrowings and errors and omissions. In case of reinvested earnings, there would be a contra entry (debit) of equal magnitude under investment income in the current account.
- 'Other Capital' reported as part of FDI inflow has been carved out from the figure reported under external commercial borrowings by the same amount. 'Other Capital' by Indian companies abroad and equity capital of unincorporated entities have been adjusted against the errors and omissions.

Capital Account

Portfolio Investment

- mainly includes FIIs' investment, funds raised through ADRs/GDRs by Indian companies and through offshore funds. Data on investment abroad, hitherto reported, have been split into equity capital and portfolio investment since 2000-01.

External Assistance

- by India denotes aid extended by India to other foreign Governments under various agreements and repayment of such loans. External Assistance to India denotes multilateral and bilateral loans received under the agreements between Government of India and other Governments/International institutions and repayments of such loans by India, except loan repayment to erstwhile "Rupee area" countries that are covered under the Rupee Debt Service.

Commercial Borrowings

- covers all medium/long term loans. Commercial Borrowings by India denote loans extended by the Export Import Bank of India (EXIM bank) to various countries and repayment of such loans.

Capital Account

Short term loans denotes drawls in respect of loans, utilized and repayments with a maturity of less than one year.

Banking Capital

- Comprises of three components : a) foreign assets of commercial banks(ADs), b) foreign liabilities of commercial banks (ADs), and c) others. 'Foreign assets' of commercial banks consist of (i) foreign currency holdings, and (ii) rupee overdrafts to nonresident banks. 'Foreign liabilities' of commercial banks consists of (i) Non-resident deposits, which comprises receipt and redemption of various nonresident deposit schemes, and (ii) liabilities other than non-resident deposits which comprises rupee and foreign currency liabilities to non-resident banks and official and semi-official institutions. 'Others' under banking capital include movement in balances of foreign central banks and international institutions like IBRD, IDA, ADB, IFC, IFAD etc. maintained with RBI as well as movement in balances held abroad by the embassies of India in London and Tokyo.

Capital Account

Rupee Debt Service

- includes principal repayments on account of civilian and non-civilian debt in respect of Rupee Payment Area (RPA) and interest payment thereof.

Other Capital

- comprises mainly the leads and lags in export receipts (difference between the custom data and the banking channel data). Besides this, other items included are funds held abroad, India's subscription to international institutions, quota payments to IMF, remittances towards recouping the losses of branches/subsidiaries and residual item of other capital transactions not included elsewhere.

Capital Account: Inflows and Outflows

Capital Inflows can take either of the two forms:

a) An increase in foreign assets of the nation

b) A reduction in the nation's assets abroad

- For Example, A US resident purchases an Indian stock. When a US resident acquires a stock in an Indian company, foreign assets in India go up. This is a capital inflow to India because it involves the receipt of a payment from a foreigner.
- When an Indian resident sells a foreign stock, Indian assets abroad decrease. This transaction is a capital inflow to India because it involves receipt of a payment from a foreigner.

Capital Account: Inflows and Outflows

Capital Outflows can also take any of the following forms:

a) An increase in the nation's assets abroad

b) A reduction in the foreign assets of the nation

Both the above transactions involve a payment to foreigners and are capital outflows.

- For Example, Purchase of a UK treasury bill by an Indian resident. The transaction results in an increase in the Indian assets abroad and is a debit transaction since it involves a payment to foreigners.
- Sale by a US firm of an Indian subsidiary. The transaction reduces foreign assets in India and is entered as a debit transaction.

Capital Account: Inflows and Outflows in Nutshell

- The Capital account in the BOP records the capital transactions — purchases and sales of assets between residents of one country and those of other countries.
- Capital account transactions can be divided into two categories. Foreign direct investment and portfolio investment. Portfolio investments are of two types — short-term and long-term.
- **Short-term** portfolio investments are financial instruments with maturities of one year or less e.g., time deposits, certificate of deposit held by residents of a country in foreign banks or by foreigners in domestic banks, commercial paper etc.
- **Long-term** portfolio investments are stocks, bonds and other financial instruments issued by private and public organisations that have maturities greater than one year and are held for purposes other than control.

Capital Account: Inflows and Outflows in Nutshell

	Debit (Outflow)	Credit (Inflow)
Portfolio (short-term)	• Buying a short-term asset • Buying back a short-term domestic asset from its foreign owner	• Selling a domestic short-term asset to a foreigner • Selling a short-term foreign asset acquired previously
Portfolio (long-term)	• Buying a long-term foreign asset (not for purpose of control) • Buying back a long-term domestic asset from its foreign owner (not for purpose of control)	• Selling a domestic long-term asset to a foreigner (not for purpose of control) • Selling a long-term foreign asset acquired previously (not for purposes of control)
Foreign direct investment	• Buying a foreign asset for purpose of control • Buying back from its foreign owner a domestic asset previously acquired for purposes of control	• Selling a long-term foreign asset acquired previously (not for purposes of control) • Selling a foreign asset previously acquired for purposes of control

Errors and Omission: Statistical Discrepancy

After recording different forms of international financial flows in the balance of payments, the statistical discrepancy, often known as errors and omissions, is also recorded. The statistical discrepancy arises on different accounts.

- Firstly, it arises because of **difficulties involved in collecting balance of payments data**. There are **different sources of data** that sometimes **differ in their approach**. In India, the trade figures differ between those compiled by the Reserve Bank of India and those compiled by the Director-General of Commercial Intelligence and Statistics.
- Secondly, **the movement of funds may lead or lag** the transactions that they (funds) are supposed to finance. For example, goods are shipped in March, but the payments are received in April. If figures are compiled on the 31st March, the figures may differ if the shipment is the basis of collecting data from those which are based on the actual payment. Such differences lead to the emergence of statistical discrepancy.

Errors and Omission: Statistical Discrepancy

- Thirdly, certain figures are **derived on the basis of estimates**. For example, figures for **earning on travel and tourism account are estimated on the basis of sample cases**. If the sample is defective, there is every possibility for the emergence of errors and omissions.
- Fourthly, errors and omissions are explained by **unrecorded illegal transactions** that may be either on debit side or on credit side or on both sides. Only the net amount is written on the balance of payments.

Monetary Movements

E) Monetary Movements
E.1) I.M.F
E.2) Foreign Exchange Reserves (Increase - / Decrease +)
EO.2) SDR Allocation

Movement in reserves

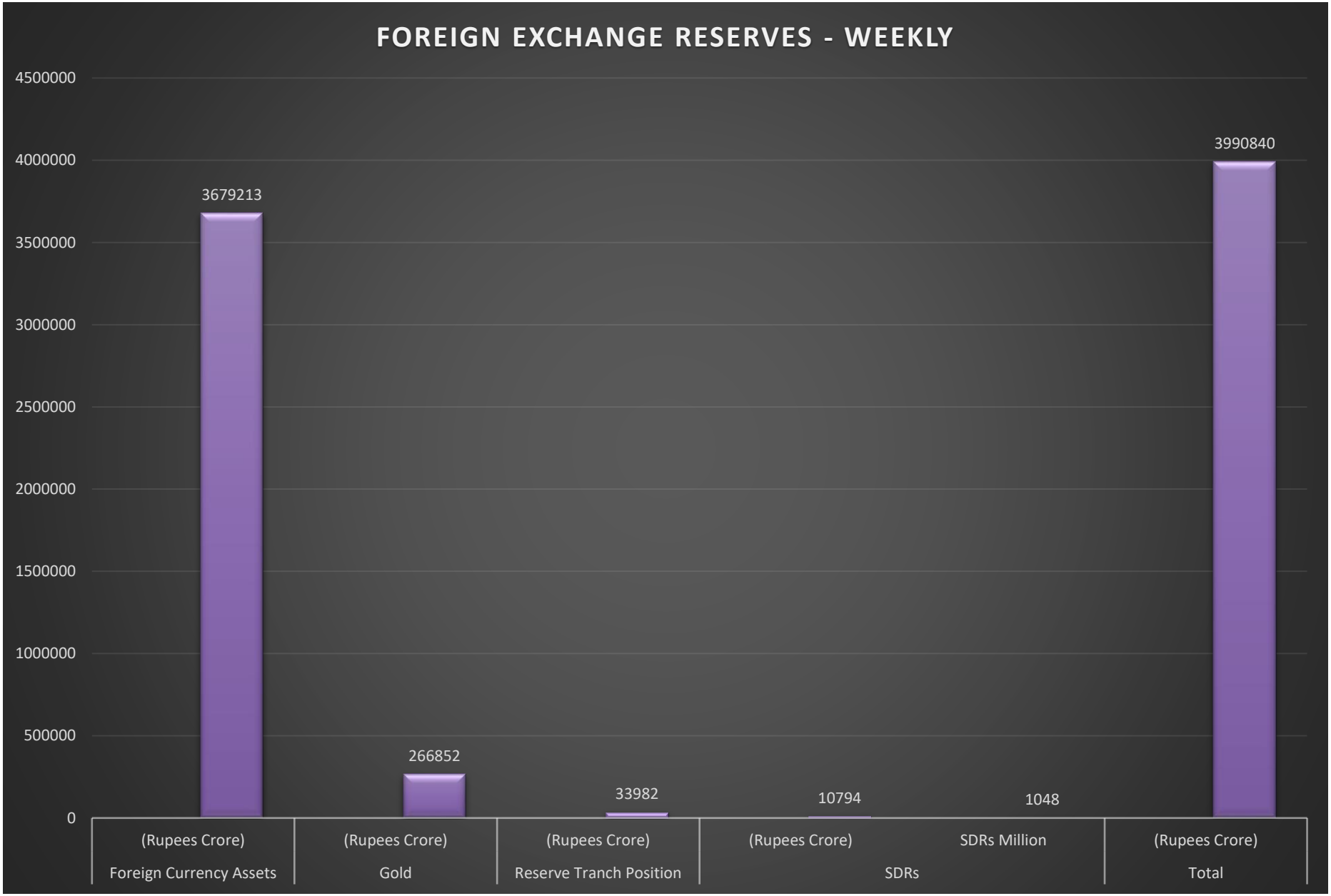
- comprises changes in the foreign currency assets held by the RBI and SDR balances held by the Government of India. These are recorded after excluding changes on account of valuation. Valuation changes arise because foreign currency assets are expressed in US dollar terms and they include the effect of appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen) held in reserves.

Monetary Movements

Official Reserves Account

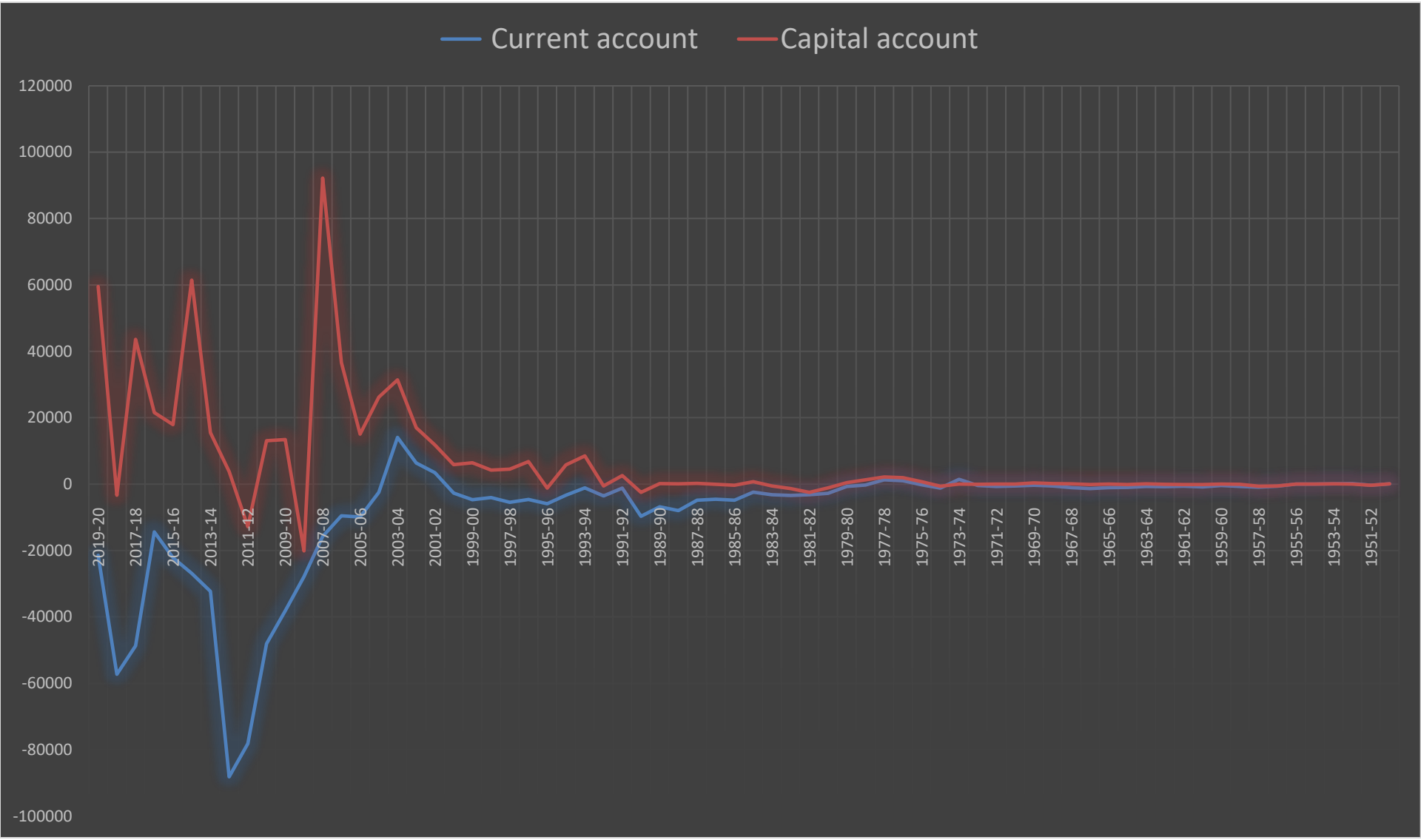
- If the overall balance is surplus, the surplus amount is transferred to the official reserves account that increases the foreign exchange reserves held by the monetary authorities. They comprise of monetary gold, SDR allocations by the IMF and the foreign currency assets. The foreign currency assets are normally held in the form of deposits with foreign central banks and investment in foreign government securities.
- It there is deficit, an amount equivalent to the deficit is drawn from the official reserves account bringing the balance of payments into equilibrium. Again, if the amount of foreign exchange reserves is not sufficient to meet the deficit, the government approaches the International Monetary Fund for the balance of payments support. Where the overall balance shows surplus, there is no need to approach the IMF.

Monetary Movements



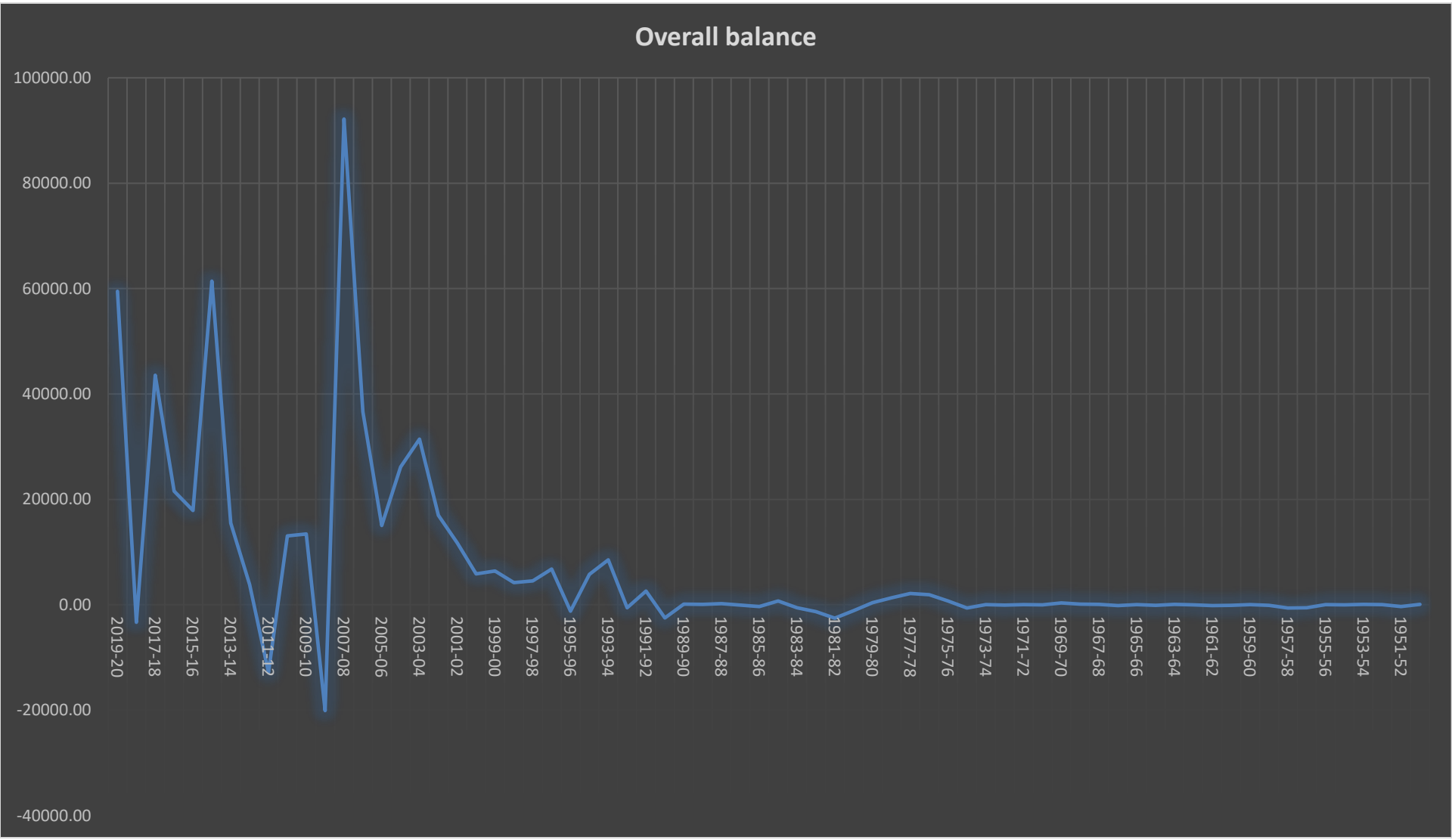
Current and Capital Account : 1952 to 2020

(US $ million)



Balance of Payment : 1952 to 2020

(US $ million)



Assessment of BOP Disequilibrium

Autonomous transactions *=are those that are carried out with business motives or to* meet the goods and the financial need of the country. The autonomous transactions take place on both current and capital accounts.

Induced or accommodating transactions = Most often,

$$X \neq M. \text{ If } X \leqq M$$

it requires some balancing transactions. Balancing transactions are in the form of international borrowing or lending that lead to short-term capital inflows or outflows. This kind of international borrowing and lending are not made for their own sake, but for making payments for deficits in the balance of trade. Such transactions are called *induced or accommodating transactions.*

Assessment of BOP Disequilibrium

If total receipts from and payments for autonomous transactions are *equal, it means* ***BOP is in equilibrium.*** *If total* receipts from and payments for autonomous transactions are substantially *unequal, it means* ***BOP*** **disequilibrium.**

Balancing the current and capital accounts
Current account deficit = Net capital inflow

BOP deficit =decrease in official foreign exchange reserves
=current account deficit + net capital inflow

Assessment of BOP Disequilibrium

CASE 1

2011-12

(Rupees Billion)

Current account balance	-3760
Capital account balance	3074
Overall balance	-685
Less Monetary transactions	
(a) IMF account **or**	-685
(b) Decrease in forex reserves	-685
BOP accounting balance	nil -------

Assessment of BOP Disequilibrium

CASE 2

2014-15

(Rupees Billion)

Current account balance	-1700.49
Capital account balance	5479.74
Overall balance	3779.25
Less Monetary transactions	
(a) IMF account **or**	3779.25
(b) Increase in forex reserves	3779.25
BOP accounting balance	nil -------

Assessment of BOP Disequilibrium

CASE 3

2017-18

(US $ million)

Current account balance	-48717
Capital account balance	92292
Overall balance	43574
Less Monetary transactions	
(a) IMF account **or**	43574
(b) Increase in forex reserves	43574
BOP accounting balance	nil -------

Assessment of BOP Disequilibrium

CASE 4

2018-19 (US $ million)

Current account balance	-57256
Capital account balance	53917
Overall balance	-3339
Monetary Movements	3339
(a) IMF account **or**	3339
(b) Increase in forex reserves [Foreign Exchange Reserves (Increase - / Decrease +)]	3339
BOP accounting balance	nil -------

Assessment of BOP Disequilibrium

CASE 5

2019-20

(US $ million)

Current account balance	-21480
Capital account balance	80978
Overall balance	**59498**
Monetary Movements	-59498
(a) IMF account **or**	-59498
(b) Increase in forex reserves [Foreign Exchange Reserves (Increase - / Decrease +)]	-59498
BOP accounting balance	**nil -------**

Capital Account Convertibility

In order to study the feasibility of the CAC, the Reserve Bank of India (RBI) set up **the Committee on Capital Account Convertibility** with **S S Tarapore** as its head in 1997.

- Capital account convertibility (CAC) **means the freedom to convert local financial assets into foreign financial assets** and vice versa at market determined rates of exchange.
- This implies that **Capital Account Convertibility allows anyone to freely move from local currency into foreign currency and back.**

Capital Account Convertibility

Benefits of Capital Account Convertibility

The Tarapore Committee defined CAC as the freedom to convert local financial assets with foreign financial assets and vice-versa at market determined rates of exchange and mentioned the following as its benefits.

- Availability **of large funds to supplement domestic resources** and thereby **promote economic growth**
- Improved **access to international financial markets** and **reduction in cost of capital.**
- Incentive for **Indians to acquire and hold international securities and assets**.
- Improvement of the **financial system in the context of global competition.**

Keeping in mind the above advantage, the committee recommended the adoption of CAC.

Capital Account Convertibility

Preconditions for CAC

However, the committee also laid down certain preconditions for the introduction of the CAC. They were,

- **Fiscal deficit** should be **reduced** to **3.5 per cent.**
- The Governments should fix the **annual inflation target between 3 to 5 per cent**. This was called mandated inflation target
- The Indian financial sector should be strengthened. **Gross non-paying assets (NPAs) should be reduced to 5 per cent**; the average **effective CRR should be reduced to 3 per cent** and weak banks should either be liquidated or be merged with other strong banks.

Capital Account Convertibility

Preconditions for CAC

- RBI should have a monitoring exchange rate band of 5 per cent around Real Effective Exchange Rate (REER) and should intervene only when the RER is outside the band
- The size of the current account deficit should be within manageable limits
- To **meet import and debt service payments**, forex reserves should be adequate
- The Government should **remove all restrictions on the movement of gold**
- The **major difficulty** with the Tarapore Committee recommendation was that the current account convertibility to be achieved in a 3 year period that is between 1998 and 2000 that was not achieved.

As a result, the RBI constituted **the Committee on Fuller Capital Account Convertibility with S S Tarapore** again as chairman. The Tarapore Committee II submitted its report in September 2006 for 2011 as a target.

However, economic events, especially global financial crisis of 2007-09, made policy makers to rethink on the introduction of the CAC.

Capital Account Convertibility

In India, we have **full current account convertibility** on Indian Rupee. (with some restrictions according to FEMA Act 1999).

Exceptions:- (Just listing for hints)

1.Betting, Gambling and prohibited Items

2.Travel to Nepal, Bhutan

3.Other: $25 K per Visit

4.Education, Medical Treatment, Employment - 1 lakh $

5.Gifts – Rs. 5 Lakh

In layman's term , If a person X wants to convert the currency to do some transactions in the current account then it's fully permitted.

Indian Rupee is **not fully convertible** in the Capital account.

- RBI has kept restrictions under FEMA Act. under these components.
- For example, If you are Ambani and you have Billion $ Empire , but still if you want to buy shares from outside world you have $75K per year restriction. (Individuals)
- This is just an example, RBI has kept several other restrictions on the Capital Account.
- RBI started **Liberalized Remittance Scheme** on "Indian Residents "Per person can take **$2.5 Lakh dollars per year.**

News

Capital Account Convertibility

RBI open to doubling capital a/c transaction cap to $250,000/year

Business Line: Mumbai, May 18 2015:

- The Reserve Bank of India is in consultations with the government to double the limit for capital account transactions for individuals to $250,000 per financial year.
- Currently, under the Liberalised Remittance Scheme, all resident individuals, including minors, are allowed to freely remit up to $125,000 per financial year for any permissible current or capital account transaction or a combination of both.
- Under the scheme, resident individuals can acquire and hold shares or debt instruments or any other assets, including property outside India, without prior RBI approval. Individuals can also open, maintain and hold foreign currency accounts with banks outside India to carry out transactions permitted under the scheme.

Exchange Rates

An exchange rate is, simply, **the price of one nation's currency in terms** of **another currency**, often termed the **reference currency.**

- For example, the Rupee/dollar exchange rate is just the number of Rupee that one dollar will buy. If a dollar will buy 61 Rupees, the exchange rate would be expressed as Rs.61/$, and the Rupee would be the reference currency.
- Equivalently, the dollar/Rupee exchange rate is the number of dollars one Rupee will buy. The exchange rate would be $0.01639/Re. (1/61), and the dollar would now be the reference currency.

Exchange Rates

An exchange rate is a price: **The relative price of two currencies.**

The exchange rate is the price of one currency stated in terms of a second currency.

- An exchange rate can be given in one of two ways, either as units of domestic currency per unit of foreign currency or vice versa.

Example: The price of a USD in terms of INR is INR 73.4400 per USD

S_t = 73.4400 USD/INR.

- Think of the currency in the denominator as the currency you buy.
- Both the LHS (USD) and the RHS (INR) are easily exchanged for each other.

Calculating Exchange Rate Changes

Currently price of 1$ = Rs.54, which means 1$ can be purchased in exchange of Rs.54.

Exchange rate tells us the value of domestic currency in relation to one unit of foreign currency. 1$ is worth Rs.54.

Rupee prices keep fluctuating all the time.

Sometimes we need more rupees to buy one unit of foreign currency and sometimes we need fewer rupees to buy one unit of foreign currency.

This change in rupee price is known as rupee appreciation or depreciation.

Calculating Exchange Rate Changes

Rupee Appreciation	• Rupee appreciation is when value of rupee increases (becomes expensive) and fewer rupees can buy one unit of foreign currency. This is also known as strengthening of rupee as now INR is worth more than foreign currency.
Example	• Suppose exchange rate changes to 1$ = Rs.50, we say rupee has appreciated as 1$ can buy fewer INR.
Rupee Depreciation	• Rupee depreciation is when rupee value decreases (becomes less expensive) and more rupees can buy one unit of foreign currency. This is also known as weakening of rupee as now INR worth is less than foreign currency.
Example	• If exchange rate changes to 1$ = Rs.55, we say rupee has depreciated as 1$ can buy more INR.

Calculating Exchange Rate Changes

Direct Quote

- e_0=1$=Rs.50
- e_1=1$=Rs.40

Formula

- $$\frac{e_0 - e_1}{e_1}$$

Solution

- $$= \frac{50 - 40}{40} \text{ x } 100 = 25\%$$

Conclusion

- Rupee appreciated against dollar by 25%

Calculating Exchange Rate Changes

Direct Quote

- e_0=1$=Rs.50
- e_1=1$=Rs.40

Formula

- $$\frac{e_1 - e_0}{e_0}$$

Solution

- $$= \frac{40 - 50}{50} \times 100 = -20\%$$

Conclusion

- Dollar depreciated against Rupee by -20%

Purchasing Power Parity (PPP)

PPP is based on the **law of one price** (LOOP):

- Goods once denominated in a common currency should have the same price.
- If they are not, then pseudo-arbitrage is possible.

Understanding the Purchasing Power Parity

What this means is that **a bundle of goods** should **ideally cost the same in India and the United States**.

- However, if it doesn't happen then we say that purchasing power parity does not exist between the two currencies.

1 USD = 50 INR

In the United States, wooden cricket bats sell for $40

while in India, they sell for 750 Rupees

The bat which costs $40 USD in U.S costs only 15 USD if we buy it in India.

Clearly there's an advantage of buying the bat in India, so consumers would be happier to buy the bat in India.

Understanding the Purchasing Power Parity

If consumers decide to do this, we should expect to see three things happen:

American consumers' demand for Indian Rupees would increase which will cause the Indian Rupee to become more expensive.

The demand for cricket bats sold in the United States would decrease and hence its prices would tend to decrease.

The increase in demand for cricket bats in India would make them more expensive. Thus the prices in the US and India would start moving towards an equilibrium.

In an ideal scenario, prices in both countries would become equal at some price point. The increased demand for INR, for instance may lead an increase in its value such that 1 USD = 40 INR.

Secondly, due to decrease in demand for the bats in the US, its price drops to USD 30.

Thirdly, the increase in demand for the bats in India takes its price up to INR 1200.

At these levels you can see that there is 'Purchase Price Parity' between both the currencies.

This also means that whether you buy the bat in US or in India, it is one and the same thing for the consumer. So what happens now?

This is because a consumer can spend $30 in the United States for a cricket bat, or he can take his $30, exchange it for 1200 Rupees (since 1 USD = 40 INR) and buy a cricket bat in India and be no better off.

Nominal Effective Exchange Rate - NEER

The nominal effective exchange rate (NEER) is an unadjusted weighted average rate at which one country's currency exchanges for a basket of multiple foreign currencies. In economics, the NEER is an indicator of a country's international competitiveness in terms of the foreign exchange (forex) market. Forex traders sometimes refer to the NEER as the trade-weighted currency index.

$$NEER = \prod_{i=1}^{n} (e/e_i)^{w_i}$$

Where **e represents the exchange rate of Indian rupee against a numeraire, i.e., the IMF's Special Drawing Rights (SDRs) in indexed form** and **e_i is exchange rate of foreign currency 'i' against the numeraire (SDR per currency i) in indexed form.**

Nominal Effective Exchange Rate - NEER

Unlike the relationships in a nominal exchange rate, NEER is not determined for each currency separately.

Instead, one individual number, typically an index, expresses how a domestic currency's value compares against multiple foreign currencies at once.

If a **domestic currency increases** against a basket of other currencies inside a floating exchange rate regime, **NEER is said to appreciate**. If the **domestic currency falls against the basket,** the **NEER depreciates.**

Nominal Effective Exchange Rate - NEER

Table a: 6-currency Normalised Weights for 2013-14

(Per cent)

Country	Trade Weights	Export Weights
China	26.56	14.06
Hong Kong	8.35	10.61
Euro	31.09	34.21
Japan	6.65	5.29
UK	5.79	7.35
USA	21.56	28.48

Nominal Effective Exchange Rate - NEER

Table b: 36-currency Normalised Weights for 2013-14

(Per cent)

Country	Trade Weights	Export Weights	Country	Trade Weights	Export Weights
Argentina	0.25	0.20	Philippines	0.24	0.43
Australia	2.36	0.91	Qatar	1.89	0.25
Bangladesh	0.73	1.68	Russia	0.97	0.80
Brazil	1.51	2.18	Saudi Arabia	5.51	2.68
Canada	0.69	0.75	Singapore	3.37	5.49
Taiwan	1.18	1.19	South Africa	2.08	1.92
Egypt	0.75	1.01	Sri Lanka	0.74	1.65
Indonesia	3.02	2.47	Sweden	0.40	0.30
Iran	2.38	1.14	Switzerland	4.80	0.40
Israel	0.95	1.48	Thailand	1.28	1.23
Kenya	0.45	1.12	Turkey	0.69	1.42
Korea	2.65	1.74	UAE	11.44	14.84
Kuwait	2.52	0.56	China	10.84	6.56
Malaysia	2.07	1.72	Hong Kong	3.41	4.95
Mexico	0.58	0.53	Euro	12.69	15.97
Vietnam	0.81	1.43	Japan	2.72	2.47
Nigeria	2.49	1.05	UK	2.36	3.43
Pakistan	0.36	0.75	USA	8.80	13.30

Uses of NEER

The NEER only **describes relative value**; it cannot **definitively show whether a currency is strong or gaining strength in real terms**.

It only describes whether a **currency is weak or strong**, or weakening or strengthening, compared to foreign currencies.

As with all exchange rates, the NEER can help identify which **currencies store value more or less effectively**.

Exchange rates influence where international **actors buy or sell goods.**

NEER is used in economic studies and for policy analysis about international trade.

It is also used by forex traders who engage in currency arbitrage. .

The Basket of Foreign Currencies

Every NEER compares one individual currency against a basket of foreign currencies. This basket is chosen on the basis of the domestic country's most important trading partners, as well other major currencies.

The value of foreign currencies in a basket are weighted according to the value of trade with the domestic country. This could be export or import value, the total value of exports and imports combined, or some other measure. The weights often relate to the assets and liabilities between different countries.

A higher NEER coefficient (above 100) means that the **home country's currency is usually worth more than an imported currency**, and a **lower coefficient (below 100) means that the home currency is usually worth less than the imported currency.**

Real Effective Exchange Rate - REER

The real effective exchange rate (REER) is the weighted average of a country's currency relative to an index or basket of other major currencies, adjusted for the effects of inflation. The weights are determined by comparing the relative trade balance of a country's currency against each country within the index. This exchange rate is used to determine an individual country's currency value relative to the other major currencies in the index, such as the U.S. dollar, Japanese yen and the euro.

$$REER = \prod_{i=1}^{n} [(e/e_i)\ (P/P_i)]^{w_i}$$

Where e represents the exchange rate of Indian rupee against a numeraire, i.e., the IMF's Special Drawing Rights (SDRs) in indexed form and e_i is exchange rate of foreign currency 'i' against the numeraire (SDR per currency i) in indexed form.

Similarly, P and Pi represent price index of home country and price index for trade partner country i,respectively while n implies number of countries/currencies (other than home country) covered under NEER and REER index.

As set out in the methodology, the REER has four parameters/variables pertaining to country/currency coverage (n), relative prices (P/P_i), weights (w_i) and exchange rates (e/ e_i).

Real Effective Exchange Rate - REER

A rise in 'e' or 'e/e_I,' thus represents an appreciation of rupee relative to the currency i and vice versa, where e represents exchange rate of Indian rupee against the numeraire, SDR in indexed form and e_I represents exchange rate of foreign currency 'i' against the numeraire (SDRs) in indexed form.

$$REER = \prod_{i=1}^{n} [(e/e_i)\ (P/P_i)]^{w_i}$$

As in the case of 6 and 36 currency WPI based REER index, the 6 and 36 currency CPI based REER index also uses a 3-year moving average trade weights with a view to suitably reflect the dynamically changing pattern of India's foreign trade with its major trading partner countries. In order to calculate the weights, the geometric average of India's bilateral trade (exports plus imports) with countries/regions represented by the 6 currencies/ 36 currencies during the preceding three years has been taken. This has then been normalised to arrive at the requisite weights (wi). The normalised weights (both trade and export weights) for the 6 and 36-currencies, respectively for the year 2013-14 are provided in Table a and b, respectively.

Benefits of Analyzing and Using the REER

A country's REER is an important measure when assessing its trade capabilities and current import/export situation. The REER can be used to measure the equilibrium value of a country's currency, identify the underlying factors of a country's trade flow, look at any changes in international price or cost competition, and allocate incentives between tradable and non-tradable sectors.

A country can positively affect its REER through rapid productivity growth. When this happens, the country realizes lower costs and can reduce prices, thus making the REER more advantageous for the country.

Benefits of Analyzing and Using the REER

If the REER < 100, then we say that the domestic currency is **undervalued**. Domestic prices are low by international standards and domestic producers are competitive. If the REER > 100, then we say that the domestic currency is **overvalued**: domestic prices are too high and domestic producers are not competitive.

A country's REER is an important measure when assessing its trade capabilities and current import/export situation. The REER can be used to measure the equilibrium value of a country's currency, identify the underlying factors of a country's trade flow, look at any changes in international price or cost competition, and allocate incentives between tradable and non-tradable sectors.

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NEER & REER

No. 36: Indices of Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER) of the Indian Rupee

Item	2018-19	2019-20	2019	2020	
			September	August	September
	1	2	3	4	5
36-Currency Export and Trade Based Weights (Base: 2004-05=100)					
1 Trade-Based Weights					
1.1 NEER	72.64	73.28	73.20	69.81	70.83
1.2 REER	114.01	116.75	116.16	115.36	117.05
2 Export-Based Weights					
2.1 NEER	74.18	74.33	74.17	70.79	71.94
2.2 REER	116.32	119.61	118.89	118.79	120.71
6-Currency Trade Based Weights					
1 Base: 2004-05 (April-March) =100					
1.1 NEER	63.07	63.59	63.80	59.05	59.76
1.2 REER	121.70	125.76	125.99	122.50	124.04
2 Base: 2017-18 (April-March) =100					
2.1 NEER	92.88	93.63	93.95	86.95	88.01
2.2 REER	94.20	97.32	97.53	94.82	96.02

Nominal Effective Exchange Rate - NEER

Table 1: CPI and WPI Based Index of REER (Trade Weighted)

	36-Currency REER (2004-05=100)		6-Currency REER (2004-05=100)	
	CPI-based REER	WPI-based REER	CPI-based REER	WPI-based REER
2004-05	100.0	100.0	100.0	100.0
2005-06	102.4	103.1	104.4	105.2
2006-07	100.8	101.2	103.8	104.3
2007-08	109.2	108.5	113.4	112.8
2008-09	99.7	98.1	103.9	102.3
2009-10	103.9	95. 7	110.7	102.0
2010-11	112.7	103.9	124.5	114.9
2011-12	110.3	101.4	121.2	111.5
2012-13	105.6	94.6	117.1	104.9
2013-14 P	103.3	89.5	112.4	97.5

P: Provisional

Nominal Effective Exchange Rate - NEER

Table 2: CPI and WPI Based Index of REER (Export Weighted)

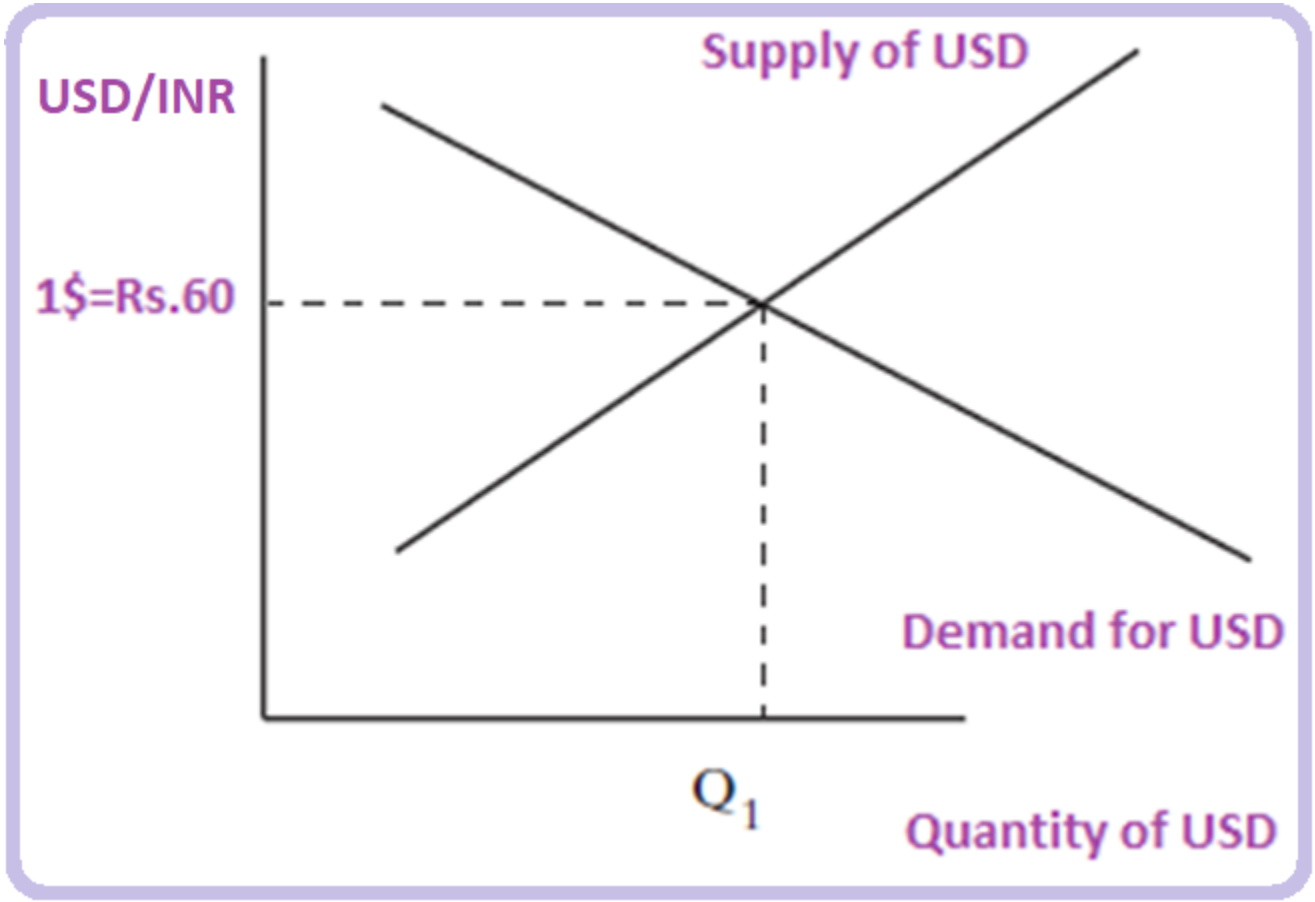
	36-currency REER (2004-05=100)		6-currency REER (2004-05=100)	
	CPI-based REER	WPI-based REER	CPI-based REER	WPI-based REER
2004-05	100.0	100.0	100.0	100.0
2005-06	102.0	102.7	104.3	105.0
2006-07	100.5	100.9	104.0	104.5
2007-08	109.2	108.6	114.6	113.9
2008-09	99.7	98.2	106.0	104.3
2009-10	105.0	96.7	113.4	104.4
2010-11	115.0	106.1	128.5	118.5
2011-12	113.2	104.1	125.8	115.7
2012-13	108.7	97.4	121.8	109.2
2013-14 P	105.6	91.5	117.6	102.0

P: Provisional

Economic Activities Behind Supply & Demand

Think about the economic activities that determine the USD/INR exchange rate.

Q: What kind of activities demand and/or supply USD in the FX market (say, in the Indian market)?



Exchange Rate in Free Market

The market theory of exchange rate determination, also called **'demand-and supply theory',** applies to the conditions of a free market.

A free foreign exchange market is one in which there is no government intervention and no restriction on holding and transacting foreign currency.

In a free foreign exchange market, the rate of foreign exchange is determined, like the price of a commodity, by the demand for and supply of foreign exchange-the foreign currencies.

Exchange Rate in Free Market

Demand for a Currency

- The demand for the Rupee in the foreign exchange market (which in this two-currency model is equivalent to the supply of dollars) derives from the American demand for Indian goods and services and Indian-denominated financial assets.
- Indian goods prices are set in Rupees, so in order for Americans to pay for their Indian goods purchases, they must first exchange their dollars for Rupees. That is, they will demand Rupees.
- An increase in the Rupees' dollar value is equivalent to an increase in the dollar price of Indian products. This higher dollar price normally will reduce the U.S. demand for Indian goods, services, and assets.
- Conversely, as the dollar value of the Rupees falls, Americans will demand more Rupees to buy the less-expensive Indian products, resulting in a downward sloping demand curve for Rupees. As the dollar cost of the Rupees (the exchange rate) falls, Americans will tend to buy more Indian goods and so will demand more Rupees.

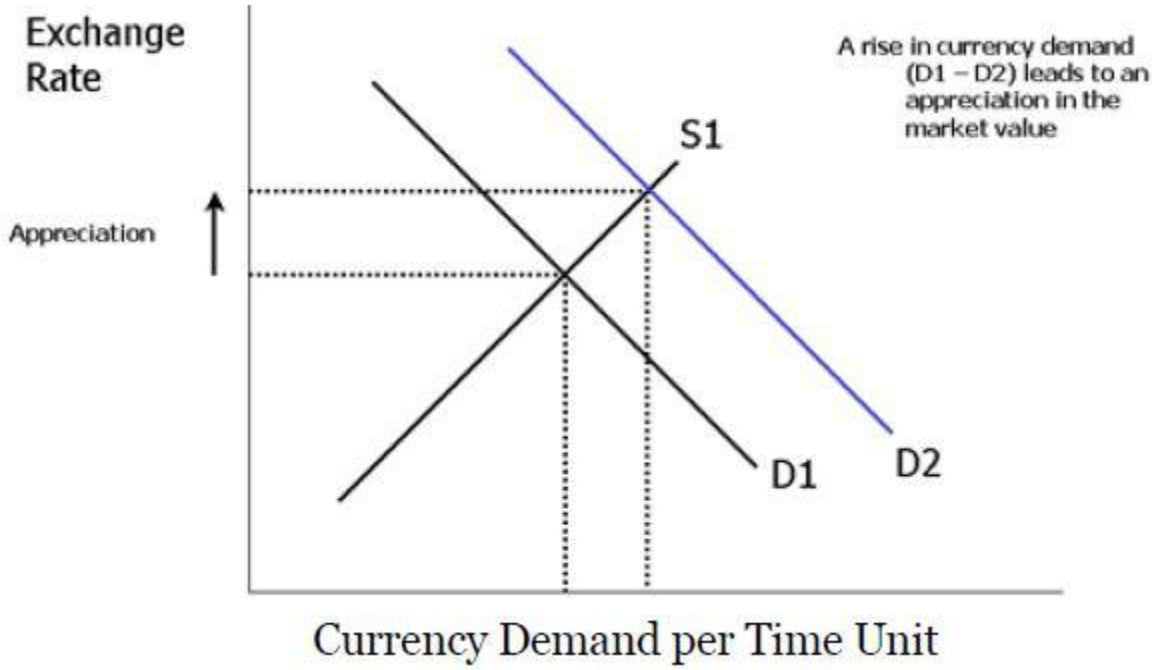
Exchange Rate in Free Market

Supply of a Currency

- Similarly, the supply of Rupees (which for the model is equivalent to the demand for dollars) is based on Indian demand for U.S. goods and services and dollar-denominated financial assets.
- In order for Indian residents to pay for their U.S. purchases, they must first acquire dollars. As the dollar value of the Rupee increases, thereby lowering the Rupee cost of U.S. goods, the increased Indian demand for U.S. goods will cause an increase in the Indian demand for dollars and, hence, an increase in the amount of Rupee supplied.

Fixed Exchange Rate System

When the monetary authority of a country fixes the exchange rate between the domestic currency and a foreign currency with a provision of fluctuation of the rate within a small upper and lower margin, it is called *fixed exchange rate.*



Member nations of IMF can vary exchange rates upto10 % in consultation with IMF and more than 10% in case of fundamental disequilibrium.

The Arguments for Fixed Exchange Rate

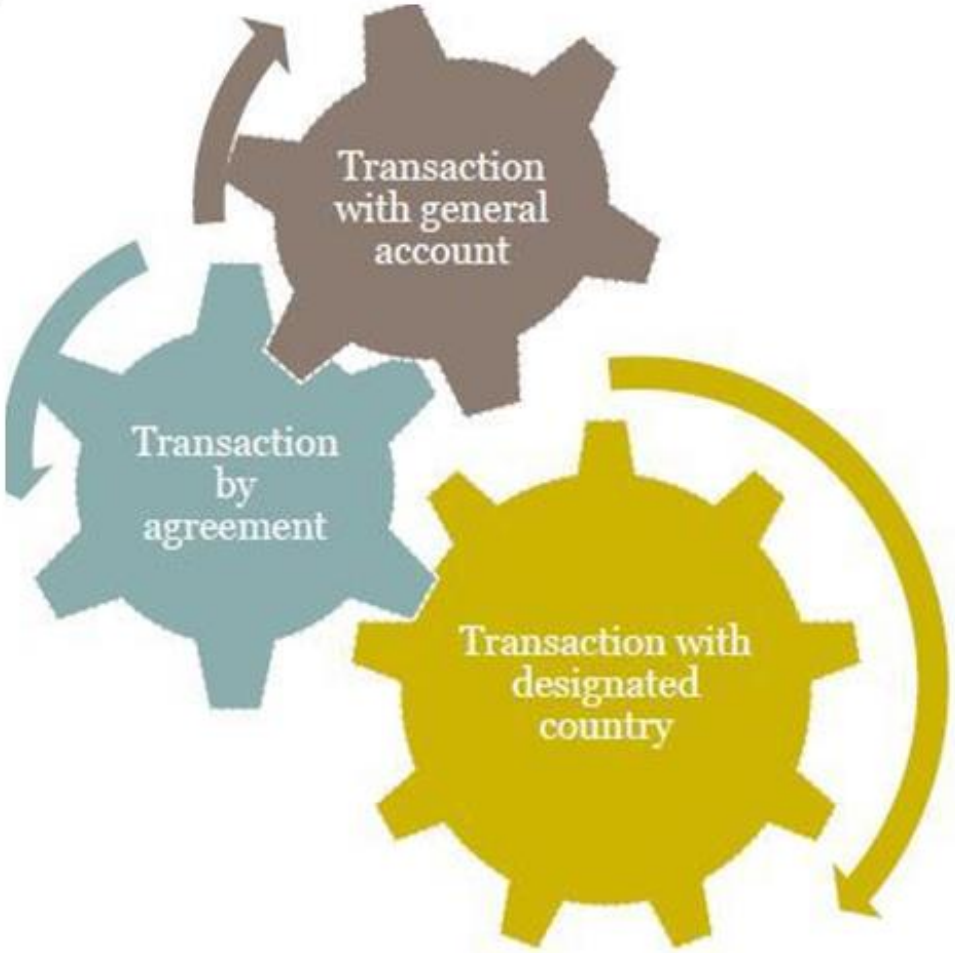
- *Fixed exchange rate provides **stability*** in the foreign exchange market;
- **Certainty about the future** course of exchange rate; and
- It **eliminates the risk** caused by **uncertainty**.
- *Fixed exchange rate system creates conditions for a **smooth flow of foreign capital*** between the nations as it ensures a given return on the foreign investment
- *Fixed exchange rate **eliminates the possibility of speculative** transactions in foreign* exchange.
- *Fixed exchange rate system **reduces the possibility** of competitive exchange **depreciation** **or devaluation*** of currencies. In case of need, assistance and guidance are provided by the IME.

Fixed vs. Flexible Exchange Rate

Fixed	Flexible
• Stability and certainty about future course • Smooth flow of international capital • Eliminate possibility of speculation • Reduces possibility of competitive depreciation of currencies • Existence of currency area	• Larger autonomy in domestic economic policies • It is self adjusting • It has good deal of predictability • Barometer of actual purchasing power and strength of a currency • Degree of uncertainty is manageable

Special Drawing Rights

Special Drawing Rights(SDR)-Reserve Assets for international liquidity *(Paper Gold)*



Special Drawing Rights(SDR's)

The SDR is an international reserve asset, created by the IMF in 1969 to supplement its member countries' official reserves. So far SDR 204.2 billion (equivalent to about US$281 billion) have been allocated to members, including SDR 182.6 billion allocated in 2009 in the wake of the global financial crisis. The value of the SDR is based on a basket of five currencies—the U.S. dollar, the euro, the Chinese renminbi, the Japanese yen, and the British pound sterling.

Special Drawing Rights(SDR's)

The role of the SDR

- The SDR was created as a supplementary international reserve asset in the context of the Bretton Woods fixed exchange rate system. The collapse of Bretton Woods system in 1973 and the shift of major currencies to floating exchange rate regimes lessened the reliance on the SDR as a global reserve asset. Nonetheless, SDR allocations can play a role in providing liquidity and supplementing member countries' official reserves, as was the case amid the global financial crisis.
- The SDR serves as the unit of account of the IMF and some other international organizations.
- The SDR is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies.

Special Drawing Rights(SDR's)

A basket of currencies determines the value of the SDR

- The SDR was initially defined as equivalent to 0.888671 grams of fine gold—which, at the time, was also equivalent to one U.S. dollar. After the collapse of the Bretton Woods system, the SDR was redefined as a basket of currencies.
- Currencies included in the SDR basket have to meet two criteria: the export criterion and the freely usable criterion. A currency meets the export criterion if its issuer is an IMF member or a monetary union that includes IMF members, and is also one of the top five world exporters. For a currency to be determined "freely usable" by the IMF, it has to be widely used to make payments for international transactions and widely traded in the principal exchange markets. Freely usable currencies can be used in Fund financial transactions.

SDR VALUE

The SDR value in terms of the U.S. dollar is determined daily based on the spot exchange rates observed at around noon London time, and posted on the IMF website.

Special Drawing Rights(SDR's)

A basket of currencies determines the value of the SDR

- The SDR basket is reviewed every five years, or earlier if warranted, to ensure that the basket reflects the relative importance of currencies in the world's trading and financial systems. The reviews cover the key elements of the SDR method of valuation, including criteria and indicators used in selecting SDR basket currencies and the initial currency weights used in determining the amounts (number of units) of each currency in the SDR basket. These currency amounts remain fixed over the five-year SDR valuation period but the actual weights of currencies in the basket fluctuate as cross-exchange rates among the basket currencies move. The value of the SDR is determined daily based on market exchange rates. The reviews are also used to assess the appropriateness of the financial instruments comprising the SDR interest rate (SDRi) basket.

Special Drawing Rights(SDR's)

A basket of currencies determines the value of the SDR

- During the last review concluded in November 2015, the Board decided that the Chinese renminbi (RMB) met the criteria for SDR basket inclusion. Following this decision, the Chinese RMB joined the US dollar, euro, Japanese yen, and British pound sterling in the SDR basket, effective October 1, 2016 and the three-month benchmark yield for China Treasury bonds was included the SDRi basket. During the 2015 review, the Board also approved a new formula—assigning equal shares to the currency issuer's exports and a composite financial indicator—to determine the weights of currencies in the SDR basket.

Currency	Weights determined in the 2015 Review	Fixed Number of Units of Currency for a 5-year period Starting Oct 1, 2016
U.S. Dollar	41.73	0.58252
Euro	30.93	0.38671
Chinese Yuan	10.92	1.0174
Japanese Yen	8.33	11.900
Pound Sterling	8.09	0.085946

Special Drawing Rights(SDR's)

Table 1. Calculation of Illustrative Currency Amounts

(Assumed Transition Date = September 6, 2016)

Currency	Percentage Weights[1]	Base Period Average Exchange Rates (BEX)[2]	Transition Date Exchange Rates (TEX) on September 6, 2016	Illustrative Currency Amounts[3]	U.S. Dollar Equivalents on September 6, 2016
U.S. dollar	41.73	1	1	0.58392	0.58392
Euro	30.93	1.11697	1.1167	0.38747	0.432688
Chinese yuan	10.92	0.150231	0.149463	1.0171	0.152019
Japanese yen	8.33	0.00968949	0.00967961	12.029	0.116436
Pound sterling	8.09	1.34266	1.3331	0.084311	0.112395
					SDR1 = US$ 1.39746[4]

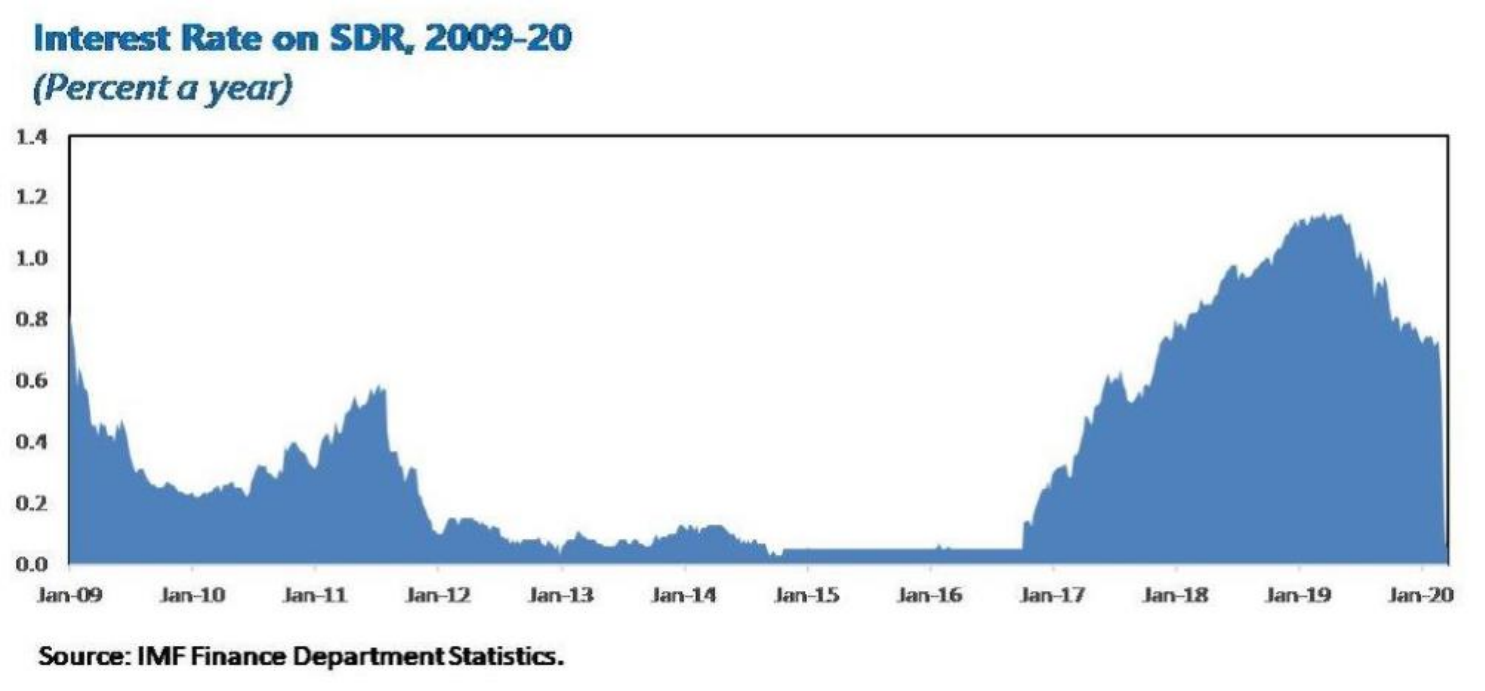
Special Drawing Rights(SDR's)

The SDR interest rate (SDRi)

- The SDRi provides the basis for calculating the interest rate charged to members on their non-concessional borrowing from the IMF and paid to members for their remunerated creditor positions in the IMF. It is also the interest paid to members on their SDR holdings and charged on their SDR allocation.

SDRi VALUE

Determined weekly based on a weighted average of representative interest rates on short-term government debt instruments in the money markets of the SDR basket currencies, with a floor of 5 basis points. It is posted on the IMF website.



Special Drawing Rights(SDR's)

Friday, October 16, 2020				
Currency Unit	Currency amount under Rule O-1	Exchange rate [1]	U.S. dollar equivalent	Percent change in exchange rate against U.S. dollar from previous calculation
Chinese yuan	1.0174	6.69455	0.151974	0.432
Euro	0.38671	1.17165	0.453089	-0.034
Japanese yen	11.900	105.30000	0.113010	-0.066
U.K. pound	0.085946	1.28890	0.110776	-0.513
U.S. dollar	0.58252	1.00000	0.582520	
			1.411369	
		U.S.$1.00 = SDR	0.708532 [2]	0.010 [3]
		SDR1 = US$	1.411370 [4]	

Footnotes

1 The exchange rates for the Japanese yen and the Chinese renminbi are expressed in terms of currency units per U.S. dollar; other rates are expressed as U.S. dollars per currency unit. Chinese renminbi refers to the name of the currency, while Chinese yuan refers to the currency unit.

2 IMF Rule O-2(a) defines the value of the U.S. dollar in terms of the SDR as the reciprocal of the sum of the equivalents in U.S. dollars of the amounts of the currencies in the SDR basket. Under current IMF procedures, each U.S. dollar equivalent is calculated on the basis of the mid-market rates, as provided to the IMF by the Bank of England, based on spot exchange rates observed at around noon London time (see Bank of England website); the value of the U.S. dollar in terms of the SDR is rounded to six significant digits. The Federal Reserve Bank of New York and the European Central Bank serve as backup providers for these exchange rates. For further details see Method of Collecting Exchange Rates for the Calculation of the Value of the SDR for the Purposes of Rule O-2(a).

3 Percent change from previous calculation.

4 The reciprocal of the value of the U.S dollar in terms of the SDR, rounded to six significant digits.

Special Drawing Rights(SDR's)

Member	QUOTA			VOTES	
	Millions of SDRs	Percent of Total[1]	Governor *Alternate*	Number[2]	Percent of Total[1]
Iceland[3]	321.8	0.07	Ásgeir Jónsson	4,683	0.09
			Gudmundur Arnason		
India[3]	13,114.4	2.76	Nirmala Sitharaman	132,609	2.64
			Shaktikanta Das		

[1]At the present time all 189 members are participants in the Special Drawing Rights Department.

[2]Voting power varies on certain matters pertaining to the General Department with use of the Fund's resources in that Department.

[3]These countries have accepted the obligations of Article VIII, Sections 2, 3, and 4 of the Articles of Agreement.

[4]This figure may differ from the sum of the percentages shown for individual countries because of rounding.

Special Drawing Rights(SDR's)

IMF's Quota

An important factor that helps the IMF's functioning is the quota. This quota is basically money that a member country has to give to the IMF.

As per the norms, each member has to subscribe a quota of the IMF. It is out of this quota which is basically money, that the IMF gives loans to its members.

How the size of quota for each member country is determined.

- broadly comparable in economic size and characteristics. The IMF uses a quota formula to guide the assessment of a member's relative position.
- The current quota formula is a weighted average of **GDP (weight of 50 percent), openness (30 percent), economic variability (15 percent), and international reserves (5 percent).** For this purpose, GDP is measured through a **blend of GDP—based on market exchange rates (weight of 60 percent)—and on PPP (Purchasing Power Parity) exchange rates (40 percent).**
- For any member country, out of the quota, **25% should be paid in the form of foreign currency or gold (called as reserve tranche or gold tranche**) to the Fund, and the **remaining 75% in the form of domestic currency (called as credit tranche).**
- Quotas are denominated in SDRs, the IMF's unit of account.

Special Drawing Rights(SDR's)

Multiple purposes of Quotas : Quota with the Fund serves many purposes.

- Firstly, quota subscribed by the members indicates funds provided by the members to the IMF, and hence it constitute to the resource base of the IMF.
- Second; a member country's loan availability depends upon size of its quota. The amount of financing a member can obtain from the IMF (called as *access limit*) thus depends upon its quota. For example, under Stand-By and Extended Arrangements, a member **can borrow up to 200 percent of its quota annually and 600 percent cumulatively.** However, access may be higher in exceptional circumstances.
- Thirdly, **the size of quota basically determines voting power of a member**. The peculiarity of the decision making process of the IMF is that the voting power of a member country depends on the size of the quota.

Special Drawing Rights(SDR's)

For the week of October 12, 2020 to October 18, 2020				
Currency Unit	Currency amount under Rule O-1 (A)	Exchange rate against the SDR [1] (B)	Interest rate [2] (C)	Product (A) x (B) x (C)
Chinese yuan	1.0174	0.105269	2.366200	0.2534
Euro	0.38671	0.833807	-0.620023	-0.1999
Japanese yen	11.900	0.00667154	-0.144000	-0.0114
U.K. pound	0.085946	0.914431	-0.022980	-0.0018
U.S. dollar	0.58252	0.706916	0.100000	0.0412
			Total	0.0815
			Floor for SDR Interest Rate	0.050
			SDR Interest Rate [3]	0.082

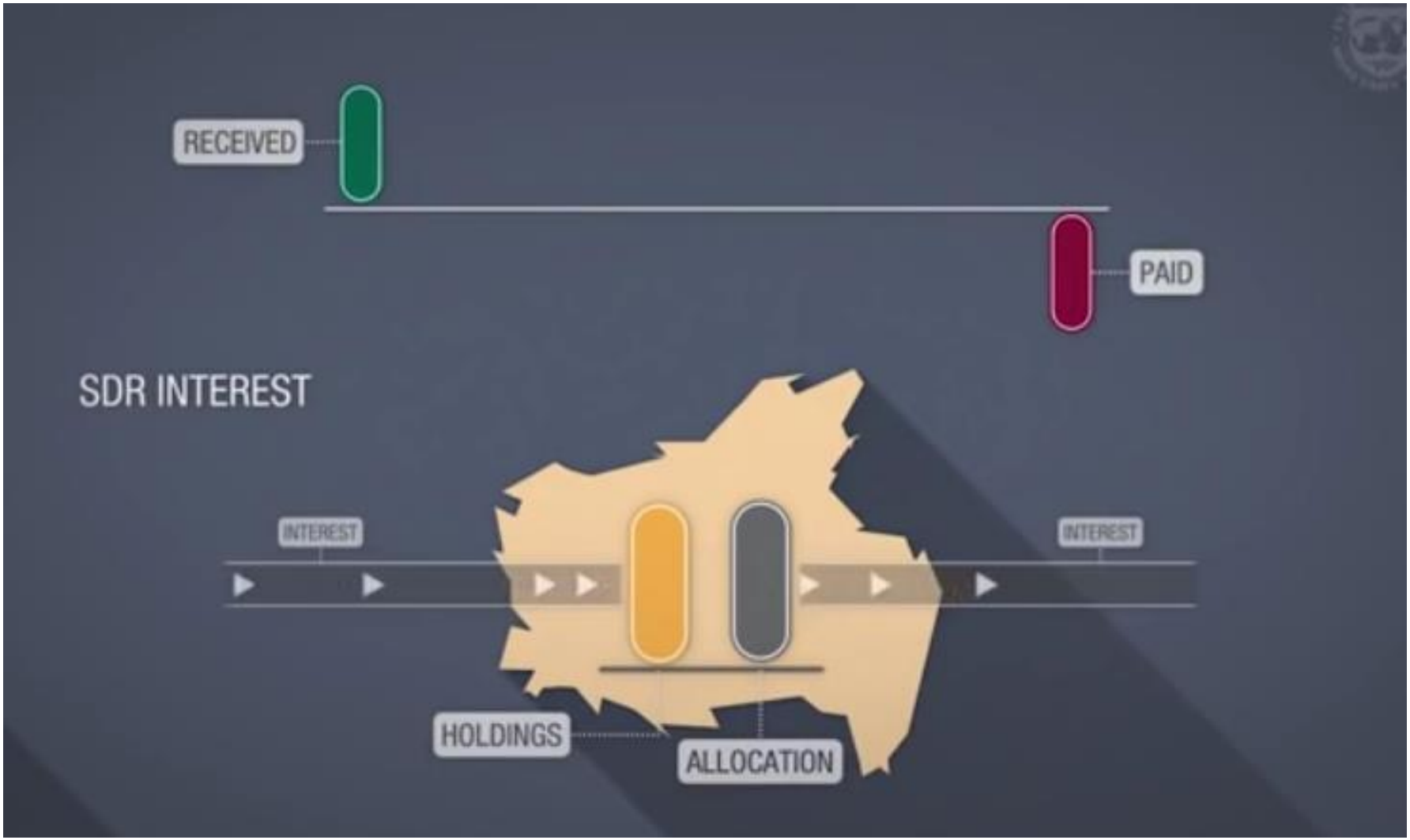
Footnotes

1 SDR per currency rates are based on the representative exchange rate for each currency. Chinese renminbi refers to the name of the currency, while Chinese yuan refers to the currency unit.

2 Interest rate on the financial instrument of each component currency in the SDR basket, expressed as an equivalent annual bond yield: three-month benchmark yield for China Treasury bonds as published by China Central Depository and Clearing Co; three-month spot rate for euro area central government bonds with a rating of AA and above published by the European Central Bank; three-month Japanese Treasury Discount bills; three-month UK Treasury bills; and three-month US Treasury bills.

3 Rule T-1 has been amended (see Press Release) and specifies that the SDR interest rate for each weekly period commencing each Monday shall be the higher of (i) the combined market interest rate or (ii) 0.050 percent. The combined market interest rate is the sum, as of the Friday preceding each weekly period, rounded to three decimal places, of the products that result from multiplying each yield or rate listed above by the value in terms of SDRs of the amount of the corresponding currency specified in Rule O-1. If a yield or rate is not available for a particular Friday, the calculation shall be made on the basis of the latest available yield or rate.

Special Drawing Rights(SDR's)

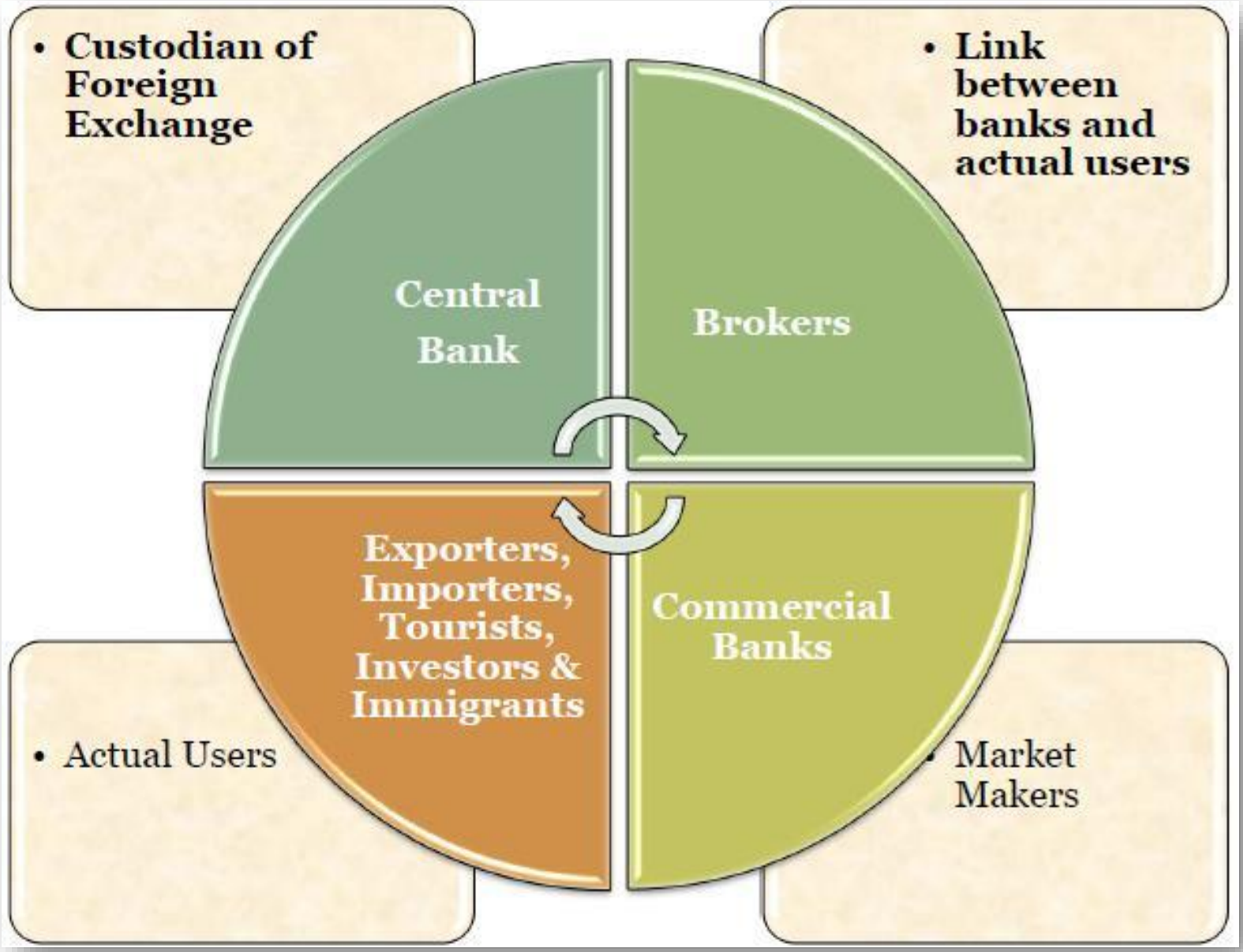


Special Drawing Rights(SDR's)

	Rate for Current Week September 09, 2019	September 15, 2019
SDR Interest Rate	0.905	
Rate of Remuneration:		
Basic Rate 1/	0.905	
Adjustment for Deferred Charges	0.004	
Adjusted Rate of Remuneration	0.901	
Rate of Charge:		
Basic rate 1/	1.905	
Adjustment for Deferred Charges	0.005	
Adjusted Rate of Charge	1.909	

Extra Reading(Not for Examination)

Structure of Foreign Exchange Market



Functions of Foreign Exchange Market

(i) Transferring foreign currency from one country to another where it is needed in the settlement of payments;

(ii) Providing short-term credit to the importers, and, thereby, facilitating smooth flow of goods and services between the countries; and

(iii) Stabilizing the foreign exchange rate by spot and forward market; sale and purchase of foreign currencies.

Kind of Foreign Exchange Market

Spot Market: The spot market refers to that segment of the foreign exchange market in which Sale and purchase of foreign currency are settled within two days of the deal.

The spot sale and Purchase of foreign exchange make the spot market.

The rate at which foreign currency is bought and sold in the spot market is called spot exchange rate

Forward Market: The forward exchange market refers to the deals for sale and purchase of a foreign currency at some future date at a presettled exchange rate. When buyers and sellers enter an agreement to buy and sell a foreign currency after 90 days of the deal, it is called forward transaction

Nature of Foreign Exchange Transactions

The nature and purpose of foreign exchange transactions are such that the exchange rate fluctuates day by day, some times even hour by hour. Therefore, the foreign exchange transactions involve risk and hence an opportunity to make profits. On the basis of their riskiness and profitability, foreign exchange transactions can be classified as **(i) hedging, (ii) arbitrage, and (iii) speculation**

Hedging: When exporters and importers enter an agreement to sell and buy goods at some future date at current prices and exchange rate, it is called *hedging.*

- *The purpose of hedging is to avoid losses that might arise due* to exchange rate variations in future.
- The forward exchange market provides an opportunity to cover the risk arising out of exchange rate fluctuation and to avoid the resulting loss in foreign trade.
- Hedging, i.e., the forward foreign exchange transaction, takes place through the banks.
- The banks dealing in forward purchase and sale of foreign exchange provide the hedging facility to the exporters and importers. They provide the guarantee for payment to the exporters and supply foreign exchange to the importers at the rate of exchange agreed upon between the banks and the exporters.

Arbitrage: Arbitrage is an act of simultaneous purchase and sale of different foreign currencies in different exchange markets.

- The objective of arbitraging is to make profit by taking the advantage of different exchange rates in different exchange markets.
- The arbitraging serves as an equalizer and stabilizer of exchange rates in major exchange markets as it transfers currency from the market where it is low to the market where it is high.
- Arbitrage works successfully only When foreign exchange market is free from controls or when controls, if any, are not of great significance.

Speculation: Speculative transactions in foreign exchange are opposite of hedging.

- In hedging, the buyers and sellers try to avoid risk, if any, due to fluctuation in the exchange rate, Speculation in foreign exchange is a deliberate attempt under the condition of risk to make profits from the fluctuations in the exchange rate.
- The speculative sale and purchase of foreign currency is based, as in another speculative business, on the speculators' expectations about the future exchange rates.
- The bears of the market expect the exchange rate between any two currencies to decline in the foreseeable future. On the other hand, bulls of the market expect the exchange rate to increase.
- Since bears expect foreign exchange to decrease in future, they sell their currency holding to avoid loss. The bulls, on the other hand, expect exchange rate to increase, and hence they buy the foreign currency with a view to selling it when exchange rate increases in future.

Evolution of International Monetary System The Gold Standard

'The Gold Game'

- Exchange rates between currencies were fixed on the basis of ***gold parity.***
- Convertibility of currencies into gold at fixed par values
- Gold –common unit of value, means of payment, store value and international liquidity

Break Down and Restoration

With the break of First World War I, gold standard broke down.

- Gold payments were suspended and convertibility of currencies in gold broke down.
- Attempts were made to revive the gold standard by UK and US.
- However, post war new ***Currency Blocks emerged- Sterling Area, French Bloc, COMECON, Dollar Area.***

International Monetary Fund-The Purpose

- Promote international monetary cooperation
- Facilitating expansion balanced growth of international trade
- Promoting exchange stability
- Establishing multilateral system of payments
- Making provision for fund's resource
- Reducing the duration and degree of disequilibrium

IMF-Functioning and Conditionality

The Quota -Bases

- **Size of national income**
- Gold and Foreign exchange reserve
- Share in world trade

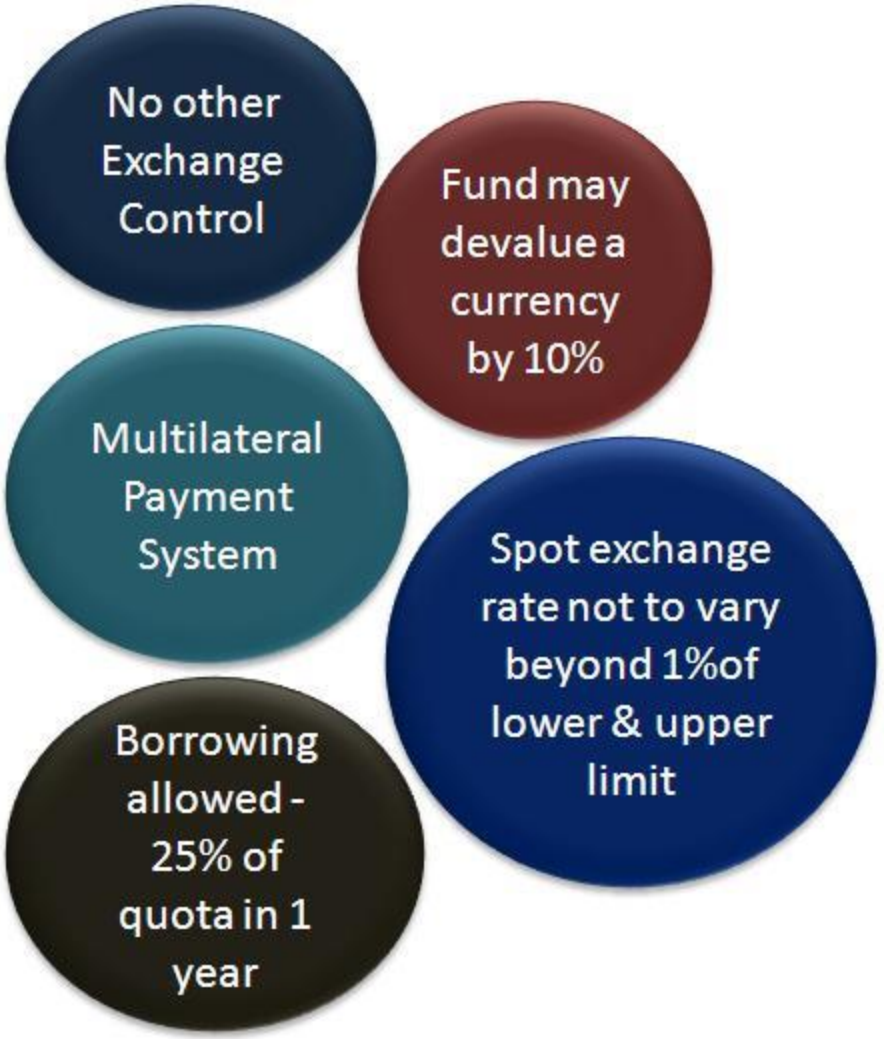
The Assistance

- **Financial assistance to member nations facing BOP deficit**
- Deficit nations borrow s by purchasing other currencies or SDR's
- Assistance available for short period
- Buy back of own currency
- Conditionalities

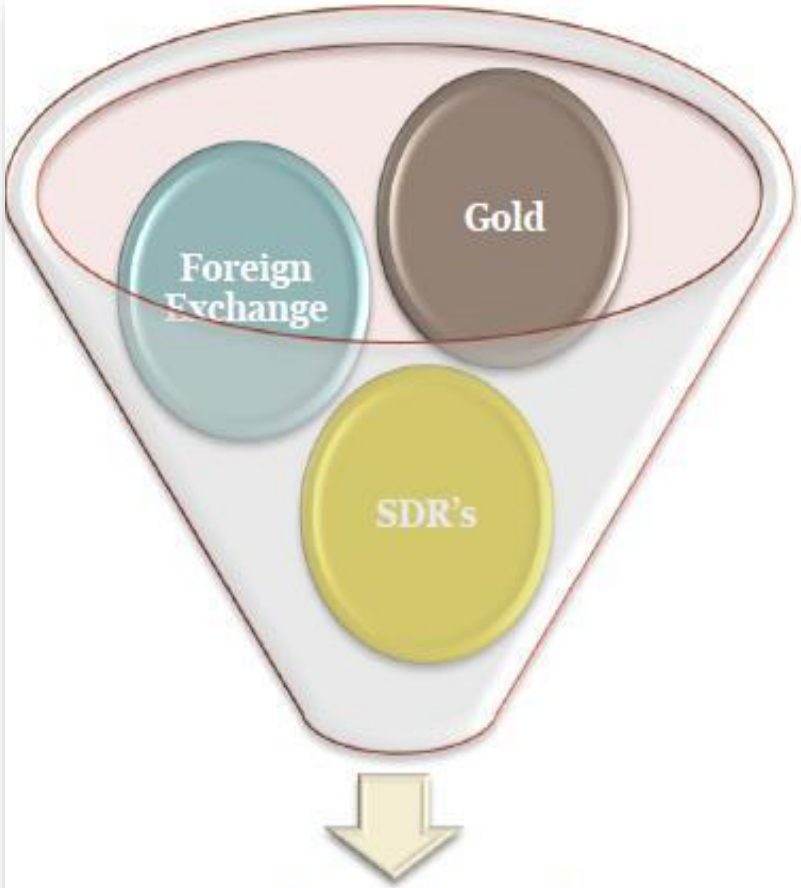
IMF and World Monetary System

IMF

- Resurrected Gold Standard
- Exchange rate fixed in gold and also linked to one of the reserve currencies.
- Restoration of multilateral payment system



International Payment Mechanism



First Line of International Liquidity

- Working Balances
- International Trade Credit
- Short Term Foreign Assets
- Long term bonds
- Stabilization of loans and accumulation

Second Line of International Liquidity

Problems of Exchange Control

Exchange Control			
Currencies become inconvertible	Foreign trade restricted	Creates a multiple exchange rate system	Creates Conditions for Bilateral Trade Agreements

Summary

- Balance of Payments is systematic record of all economic transactions between residents of one country and residents of foreign countries during a certain period of time
- Balance of payments account are current & capital account
- Causes of BOP disequilibrium are price changes, structural changes and business cycle
- BOP Adjustments are made by policy changes or direct control
- Problems of Exchange Control include currencies become inconvertible, foreign trade restricted, multiple exchange rate system and bilateral trade agreements
- Foreign Exchange Rate is the rate at which currency of one country is bought or sold in terms of currency of other country.
- Foreign Exchange Market consists of central bank, brokers, commercial Banks, exporters, importers, tourists, investors & immigrants.
- Spot Market and Forward Market exist in Foreign Exchange Market.

Summary

- Rate of Exchange is fixed by market forces of demand & supply
- Purchasing power parity is the relative value of different currency corresponds to the relation between real purchasing power of the currency in its own currency
- Exchange rates between currencies were fixed on the basis of gold parity.
- The quota of IMF is determined by size of national income, gold and foreign exchange reserve and share in world trade
- IMF fixed exchange rate in gold and also linked to one of the reserve currencies.
- Special Drawing Rights-Reserve Assets for international liquidity (Paper Gold)
- International Payment Mechanism includes first line of international liquidity and second line of international liquidity.