International Monetary Management

UTKAL UNIVERSITY
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DIRECTORATE OF DISTANCE & CONTINUING EDUCATION
Utkal University, Bhubaneswar-7, Odisha
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(M.A. ECONOMICS – 3rd Semester)

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DIRECTORATE OF DISTANCE AND CONTINUING EDUCATION
UTKAL UNIVERSITY: VANI VIHAR
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From the Director's Desk

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We wish you happy reading.

DIRECTOR

SYLLABUS

Unit – I

The Market for Foreign Exchange: Demand for foreign exchange, Supply of foreign exchange equilibrium rate of exchange.

The Balance of Payments: The Balance of trade, The balance of current accounts, The balance of payments, Equilibrium and disequilibrium in the balance of payments, Autonomous and accommodating capital flows, Disequilibrium in the balance of payment.

Unit – II

Monetary Systems and International Adjustment: Adjustment under flexible rate, Direct controls, Devaluation fixed vs. Flexible exchange rate.

Unit – III

The International Monetary System: Gold Standard as an international standard – its working breakdown experience of the world after its breakdown, Efforts to build a world monetary system, The Keynes and white plans, The Britain Woods system and its failures managed flexibility in action drawbacks of the state.

Unit – IV

Regional Clearing System: The sterling area, The intra-European payments agreements.

The Dollar Problem: Nature of the problem in the fifties and seventies: Its impact on the world monetary system, The problem of international liquidity, The adjustment mechanism and the international monetary system.

Unit – V

Proposals for Reforms of the International Monetary System: Flexible exchange rates revaluation of gold, Keynes Plan for a clearing union, the triffin plan, The Bernstein Plan, Hard Caldor Tinbergen Plan, Special drawing rights under IMF international Monetary System and the developing countries.

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Chapter

1

THE MARKET FOR FOREIGN EXCHANGE

Objectives

The objectives of this lesson are to:

- The Market for Foreign Exchange
- Demand for Foreign Exchange
- Supply of Foreign Exchange Equilibrium rate of Exchange
- The Balance of Payments
- The Balance of Trade
- The Balance of Current Accounts
- The Balance of Payments
- Equilibrium and Disequilibrium in the Balance of Payments
- Autonomous and Accommodating Capital Flows
- Disequilibrium in the Balance of Payment

Structure:

1.1 Introduction

1.2 Meaning of Foreign Exchange

1.3 Importance of Foreign Exchange

1.4 The Market for Foreign Exchange

1.5 Meaning of Foreign Exchange Market

1.6 History of Foreign Exchange Market

1.7 Functions of Foreign Exchange Market

1.8 Participants of Foreign Exchange Markets

1.9 Types of Foreign Exchange Markets

1.10 Demand for Foreign Exchange

1.11 Supply of Foreign Exchange

1.12 Supply of Foreign Exchange Equilibrium Rate of Exchange

1.13 The Balance of Payments

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1.15 The Balance of Current Account

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1.1 INTRODUCTION

Monetary management means the management of the money supply and monetary and credit-market conditions by the monetary authority the central bank in the pursuit of certain general social objectives. An international monetary management is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross border investment and generally the reallocation of capital between nation states. It should provide means of payment acceptable to buyers and sellers of different nationalities, including deferred payment. To operate successfully, it needs to inspire confidence, to provide sufficient liquidity for fluctuating levels of trade, and to provide means by which global imbalances can be corrected. The system can grow organically as the collective result of numerous individual agreements between international economic factors spread over several decades. Alternatively, it can arise from a single architectural vision, as happened at Bretton Woods in 1944.

Like many international organizations, the IMF is run by a Board of Governors, an Exe-cutive Board and an international staff. Every member country delegates a representative (usually heads of central banks or ministers of finance) to the Board of Governors the top link of the chain of command. It meets once a year and takes decision on fundamental matters such as electing new members or changing quotas.

The Executive Board is entrusted to the management of day-to-day policy decisions. The Board comprises 24 executive directors who supervise the implementation of policies set by the member governments through the Board of Governors. Rights and obligations, i.e., the balance of Powers in the Fund is determined by a system of quotas. Quotas are decided by a vote of the Board of Governors. Quotas or subscriptions roughly reflect the importance of members in the world economy. It is the quota on which payment obligation, credit facilities and voting rights of members are determined.

1.2 MEANING OF FOREIGN EXCHANGE

Foreign exchange refers to the exchange of one currency for another or the conversion of one currency into another currency. It is the process by which people in different countries pay each other by exchanging different types of money.

Notes

1.3 IMPORTANCE OF FOREIGN EXCHANGE

Foreign exchange is important because it determines the value of foreign investment. A volatile exchange rate discourages foreign investment, as does a high, stable one. A low, stable exchange rate, however, encourages foreign investment, but at the price of the low-valued currency's economy.

(a) Volatile Exchange Rate

If an exchange rate is volatile, foreign investors cannot accurately predict their investment returns. Even if they invest in holdings that give stable, consistent returns in a foreign currency, if that foreign currency is liable to dramatically change its value, then the investment is similarly volatile.

(b) Stable, High Value

A high value currency encourages import markets while discouraging export markets. This is because foreign investors can increase their return on investment (ROI) by making money in a currency that goes far in their country. Exports, however, are harmed, as they are not worth as much overseas as they are at home.

(c) Stable, Low Value

A currency that has a low value encourages exports and discourages imports. This is because goods sold overseas for higher-value currencies are worth even more than their face value solely because of the currency value. Conversely, there is little incentive for importers to bring goods into a country and if they do, importers must mark these goods up in order to recoup their losses due to the low currency rate.

1.4 THE MARKET FOR FOREIGN EXCHANGE

The foreign exchange market is a global decentralized or over-the-counter (OTC) market for the trading of currencies. This market determines the foreign exchange rate. It includes all aspects of buying, selling and exchanging currencies at current or determined prices. In terms of trading volume, it is by far the largest market in the world, followed by the Credit market.

The main participants in this market are the larger international banks. Financial centers around the world function as anchors of trading between a wide range of multiple types of buyers and sellers around the clock, with the exception of weekends. Since currencies are always traded in pairs, the foreign exchange market does not set a currency's absolute value but rather determines its relative value by setting the market price of one currency if paid for with another. Example: 1 USD is worth X CAD or CHF or JPY, etc.

The foreign exchange market works through financial institutions, and operates on several levels. Behind the scenes, banks turn to a smaller number of financial firms known as "dealers", who are involved in large quantities of foreign exchange trading. Most foreign exchange dealers are banks, so this behind-the-scenes market is sometimes called the "interbank market" (although a few insurance companies and other kinds of financial firms are involved). Trades between foreign exchange dealers can be very large, involving hundreds of millions of dollars. Because of the sovereignty issue when involving two currencies, Forex has little (if any) supervisory entity regulating its actions.

The foreign exchange market assists international trade and investments by enabling currency conversion. For example, it permits a business in the United States to import goods from European Union member states, especially Eurozone members and pay Euros, even though its income is in United States dollars. It also supports direct speculation and evaluation relative to the value of currencies and the carry trade speculation, based on the differential interest rate between two currencies.

Notes

In a typical foreign exchange transaction, a party purchases some quantity of one currency by paying with some quantity of another currency.

The modern foreign exchange market began forming during the 1970s. This followed three decades of government restrictions on foreign exchange transactions under the Bretton Woods system of monetary management, which set out the rules for commercial and financial relations among the world's major industrial states after World War II. Countries gradually switched to floating exchange rates from the previous exchange rate regime, which remained fixed per the Bretton Woods system.

In a free economy, a country's currency is valued according to the laws of supply and demand. In other words, a currency's value can be pegged to another country's currency, such as the U.S. dollar, or even to a basket of currencies. A country's currency value may also be set by the country's government.

However, most countries float their currencies freely against those of other countries, which keeps them in constant fluctuation. The value of any particular currency is determined by market forces based on trade, investment, tourism and geo-political risk. Every time a tourist visits a country, for example, they must pay for goods and services using the currency of the host country. Therefore, a tourist must exchange the currency of his or her home country for the local currency. Currency exchange of this kind is one of the demand factors for a particular currency.

Another important factor of demand occurs when a foreign company seeks to do business with another in a specific country. Usually, the foreign company will have to pay in the local company's currency. At other times, it may be desirable for an investor from one country to invest in another, and that investment would have to be made in the local currency as well. All of these requirements produce a need for foreign exchange and contribute to the vast size of foreign exchange markets.

Most Successful Forex Traders Ever

1. Bill Lipschutz

Born in New York, Bill has always excelled in mathematics and was a bright student overall. He earned a B.A. in Cornell College in Fine Arts and then a Masters degree in Finance back in 1982. Apart from academics, Bill enjoyed reading whatever he could find regarding the stock and Forex market. It is said that during his stay at Cornell, he invested $12000 in stocks, which he turned into $250,000 in only a couple of months, largely thanks to his extensive knowledge of the stock market business. However, he soon lost all his money to stocks due to the erratic nature of the business; after this loss he shifted to a more stable form of trading: the forex.

Today, Bill is a well known forex trader in the financial sector. He is known to have made over $300 million in a single year from trading on the forex market alone.

2. George Soros

A graduate of the LSE (London School of Economics), George has broken records in the financial sector. He made $1 billion dollars in just one day from a single transaction. This gained him a lot of press and he was branded as the man who "broke the Bank of England", having shifted over $10 billion dollars' worth of sterling out of Britain. He has written many books on investing, and is also a philanthropist, having donated over $7 billion in charity of personal savings over the course of his existence.

3. John R. Taylor, Jr.

A graduate of Princeton University, John started in the financial sector as a political analyst for Chemical Bank. Just one year into the job, he became the forex analyst for the bank which proved a wonderful opportunity for him to build a network in the foreign exchange world.

John is the proud owner of FX concepts, a currency managing firm, and operates it successfully to this day. He is also considered a pioneer of computer-aided forex trading systems, developing forex models for effective online trading.

4. Stanley Druckenmiller *Notes*

Stanley started out as an oil analyst for the Pittsburgh National Bank. Having graduated from Bowdoin College, Stanley changed many jobs. First, he left PNB to create Duquesne Capital Management in the year 1981, and then he started to work for George Soros in 1988. Working with George Soros proved excellent for Stanley, because not only did he garner over 30% return in the Quantum Fund, he also contributed to the deal which earned both him and Soros over $1 billion; this was the deal which "broke the Bank of England".

He returned to Duquesne in 2000 and now works full-time there; he has also started a non-profit organization dedicated to educating people of all ages.

5. Andrew Krieger

A graduate of the prestigious Wharton Business School at the University of Pennsylvania, Andrew grew to fame when he sold New Zealand currency called Kiwi in between the value of $600 million to about $1 billion which exceeded the money supply in circulation in actuality within New Zealand at that time. Andrew ended up garnering $300 million in revenue from this transaction alone in 1987 while working at the Bankers Trust.

Andrew moved on to work for Soros Management Fund in 1988, later switching to Northbridge Capital Management. He is also involved in philanthropic work, having donated over $350,000 for a relief fund for the 2004 tsunami victims.

1.5 MEANING OF FOREIGN EXCHANGE MARKET

The foreign exchange market is the market in which participants are able to buy, sell, exchange and speculate on currencies. Foreign exchange markets are made up of banks, commercial companies, central banks, investment management firms, hedge funds and retail forex brokers and investors.

1.6 HISTORY OF FOREIGN EXCHANGE MARKET

1. Ancient

Currency trading and exchange first occurred in ancient times. Money-changers (people helping others to change money and also taking a commission or charging a fee) were living in the Holy Land in the times of the Talmudic writings (Biblical times). These people used city stalls, and at feast times the Temple's Court of the Gentiles instead. Money-changers were also the silversmiths and/or goldsmiths of more recent ancient times.

During the 4th century AD, the Byzantine government kept a monopoly on the exchange of currency. Currency and exchange were important elements of trade in the ancient world, enabling people to buy and sell items like food, pottery and raw materials. If a Greek coin held more gold than an Egyptian coin due to its size or content, then a merchant could barter fewer Greek gold coins for more Egyptian ones, or for more material goods. This is why, at some point in their history, most world currencies in circulation today had a value fixed to a specific quantity of a recognized standard like silver and gold.

2. Medieval and later

During the 15th century, the Medici family was required to open banks at foreign locations in order to exchange currencies to act on behalf of textile merchants. To facilitate trade, the bank created the nostro (from Italian, this translates to "ours") account book which contained two columned entries showing amounts of foreign and local currencies; information pertaining to the keeping of an account with a

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foreign bank. During the 17th (or 18th) century, Amsterdam maintained an active Forex market. In 1704, foreign exchange took place between agents acting in the interests of the Kingdom of England and the County of Holland.

3. Early modern

Alex. Brown & Sons traded foreign currencies around 1850 and was a leading currency trader in the USA. In 1880, J. M. do Espírito Santo de Silva applied for and was given permission to engage in a foreign exchange trading business. The year 1880 is considered by at least one source to be the beginning of modern foreign exchange: the gold standard began in that year.

Prior to the First World War, there was a much more limited control of international trade. Motivated by the onset of war, countries abandoned the gold standard monetary system.

4. Modern to post-modern

From 1899 to 1913, holdings of countries' foreign exchange increased at an annual rate of 10.8%, while holdings of gold increased at an annual rate of 6.3% between 1903 and 1913.

At the end of 1913, nearly half of the world's foreign exchange was conducted using the pound sterling. The number of foreign banks operating within the boundaries of London increased from 3 in 1860, to 71 in 1913. In 1902, there were just two London foreign exchange brokers. At the start of the 20th century, trades in currencies was most active in Paris, New York City and Berlin; Britain remained largely uninvolved until 1914. Between 1919 and 1922, the number of foreign exchange brokers in London increased to 17; and in 1924, there were 40 firms operating for the purposes of exchange.

During the 1920s, the Kleinwort family was known as the leaders of the foreign exchange market, while Japheth, Montagu & Co. and Seligman still warrant recognition as significant FX traders. The trade in London began to resemble its modern manifestation. By 1928, Forex trade was integral to the financial functioning of the city. Continental exchange controls, plus other factors in Europe and Latin America, hampered any attempt at wholesale prosperity from trade for those of 1930s London.

5. After World War II

In 1944, the Bretton Woods Accord was signed, allowing currencies to fluctuate within a range of ±1% from the currency's par exchange rate. In Japan, the Foreign Exchange Bank Law was introduced in 1954. As a result, the Bank of Tokyo became the center of foreign exchange by September 1954. Between 1954 and 1959, Japanese law was changed to allow foreign exchange dealings in many more Western currencies.

U.S. President, Richard Nixon is credited with ending the Bretton Woods Accord and fixed rates of exchange, eventually resulting in a free-floating currency system. After the Accord ended in 1971, the Smithsonian Agreement allowed rates to fluctuate by up to ±2%. In 1961–62, the volume of foreign operations by the U.S. Federal Reserve was relatively low. Those involved in controlling exchange rates found the boundaries of the Agreement were not realistic and so ceased this in March 1973, when sometime afterward none of the major currencies were maintained with a capacity for conversion to gold organizations relied instead on reserves of currency. From 1970 to 1973, the volume of trading in the market increased three-fold. At some time (according to Gandolfo during February–March 1973) some of the markets were "split", and a two-tier currency market was subsequently introduced, with dual currency rates. This was abolished in March 1974.

Reuters introduced computer monitors during June 1973, replacing the telephones and telex used previously for trading quotes.

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6. Markets close

Due to the ultimate ineffectiveness of the Bretton Woods Accord and the European Joint Float, the forex markets were forced to close sometime during 1972 and March 1973. The very largest purchase of US dollars in the history of 1976 was when the West German government achieved an almost 3 billion dollar acquisition (a figure given as 2.75 billion in total by The Statesman: Volume 18 1974), this event indicated the impossibility of the balancing of exchange stabilities by the measures of control used at the time and the monetary system and the foreign exchange markets in "West" Germany and other countries within Europe closed for two weeks (during February and, or, March 1973. Giersch, Paqué, & Schmieding state closed after purchase of "7.5 million Dmarks" Brawley states "... Exchange markets had to be closed. When they re-opened ... March 1 "that is a large purchase occurred after the close).

7. After 1973

In developed nations, the state control of the foreign exchange trading ended in 1973 when complete floating and relatively free market conditions of modern times began. Other sources claim that the first time a currency pair was traded by U.S. retail customers was during 1982, with additional currency pairs becoming available by the next year.

On 1 January 1981, as part of changes beginning during 1978, the People's Bank of China allowed certain domestic "enterprises" to participate in foreign exchange trading. Sometime during 1981, the South Korean government ended Forex controls and allowed free trade to occur for the first time. During 1988, the country's government accepted the IMF quota for international trade.

Intervention by European banks (especially the Bundesbank) influenced the Forex market on 27 February 1985. The greatest proportion of all trades worldwide during 1987 were within the United Kingdom (slightly over one quarter). The United States had the second highest involvement in trading. During 1991, Iran changed international agreements with some countries from oil-barter to foreign exchange.

Foreign Exchange Market in India

The market in which international currency trade takes place i.e. where foreign currencies are bought and sold simultaneously is called the Foreign Exchange (Forex) Market. It is the organisational framework within which banks, merchants, firms, investors, individuals and government exchange foreign currencies for one another.

Foreign Exchange, For example, in India the currency in circulation is called the rupee INR and in the United States, the currency in circulation is called the US Dollar (USD).An example of a Forex trade is to sell the Indian rupee while simultaneously buying the US Dollar. Forex market has no geographical location, it is electronically linked network and is open 24 hours a day. The value for which one currency is exchanged for another or the value of one currency in terms of another currency is called exchange rate. For example, US dollar can be bought for 63 INR rupees. This is the exchange rate for Indian rupees in US dollars. The foreign exchange market in India started when in 1978 the government allowed banks to trade foreign exchange with one another. Foreign Exchange Market in India operates under the Central Government of India and executes wide powers to control transactions in foreign exchange. The Foreign Exchange Management Act, 1999 or FEMA regulates the whole Foreign Exchange Market in India. Before the introduction of this act, the foreign exchange market in India was regulated by the Reserve Bank of India through the Exchange Control Department, by the Foreign Exchange Regulation Act or FERA, 1947. Interbank foreign exchange Trading is regulated by the Foreign Exchange Dealers Association of India (FEDAI) created in 1958, a self-regulatory voluntary association of dealers or banks specializing in the foreign exchange activities in India that regulates the governing rules and determines the commissions and charges associated with the interbank foreign

Notes exchange business. Since 2001, clearing and settlement functions in the foreign exchange market are largely carried out by the Clearing Corporation of India Limited (CCIL) that handles transactions of approximately 3.5 billion US dollars a day, about 80% of the total transactions.

Advertisement

The foreign exchange market in India consists of 3 segments or tires. The first consists of transactions between the RBI and the authorized dealers (AD). The latter are mostly commercial banks. The second segment is the interbank market in which the AD's deal with each other. And the third segment consists of transactions between AD's and their corporate customers. As in any market essentially the demand and supply for a particular currency at any specific point in time determines its price (exchange rate) at that point. Prior to 1990s fixed Exchange rate of the rupee was officially determined by RBI. During the early years of liberalization, the Rangarajan committee recommended that India's exchange rate be flexible. India moved from a fixed exchange rate regime to "market determined" exchange rate system in 1993. This is explained as under. A country's currency exchange rate is typically affected by the supply and demand for the country's currency in the international foreign exchange market. Let's take the example of Rupee Dollar exchange. The rupee/dollar rate is a two-way rate which means that the price of 1 dollar is quoted in terms of how much rupees it takes to buy one dollar. The value of one currency against another is based on the demand of the currency. If the demand for dollar increases, the value of dollar would appreciate. As the quotation for Rs/$ is a two way quote, an appreciation in the value of dollar would automatically mean the depreciation in Indian rupee and vice-versa. Besides the primary powers of demand and supply, the Indian exchange rate is affected by following factors:

RBI Intervention: When there is too much volatility in the rupee-dollar rates, the RBI prevents rates going out of control to protect the domestic economy. The RBI does this by buying dollars when the rupee appreciates too much and by selling dollars when the rupee depreciates way too much.

Inflation: When inflation increases there will be less demand of domestic goods and more demand of foreign goods i.e. increases demand for foreign currency), thus value of foreign currency increases and home currency depreciates thus negatively affecting exchange rate of home currency.

Imports and Exports: Importing foreign goods requires us to make payment in foreign currency thus strengthening the foreign currency's demand. Increase in demand increases the value of foreign currency and exports do the reverse.

Interest rates: The interest rates on Government bonds in emerging countries such as India attract foreign capital to India.

If the rates are high enough to cover foreign market risk, money would start pouring in India and thus would provide a push to rupee demand thus appreciating rupee value for exchange.

Operations: The major sources of supply of foreign exchange in the Indian foreign exchange market are receipts on account of exports and invisibles in the current account, drafts, travellers cheque and inflows in the capital account such as foreign direct investment (FDI), portfolio investment, external commercial borrowings (ECB) and non-resident deposits. On the other hand, the demand for foreign exchange rises from imports and invisible payments in the current account, amortisation of ECB (including short-term trade credits) and external aid, redemption of NRI deposits and outflows on account of direct and portfolio investment.

Types of Foreign Market Operations

1. ***Spot market (current market):*** Spot market for foreign exchange is that market which handles only spot transactions or current transactions. Spot rate of exchange prevails at the time when transactions are incurred. it is of daily nature.

2. ***Forward market (derivative market):*** It is meant for future delivery i. determines forward exchange rate at which forward transaction are to be honored. It deals in following instruments: foreign exchange forwards, currency futures, currency swaps, currency options. *Notes*
3. ***Exchange settlement and dealings:*** Nostro and Vostro account facilitate settlement of foreign exchange transaction.
4. ***Nostro account:*** A foreign currency account maintained by a bank in India with a bank in abroad. For example, Bank of India US dollar account with Citi bank. Vostro account: A rupee account of a foreign bank abroad with a bank in India. For example, Citi bank rupee account with bank of India.

1.7 FUNCTIONS OF FOREIGN EXCHANGE MARKET

Foreign Exchange Market is the market where the buyers and sellers are involved in the buying and selling of foreign currencies. Simply, the market in which the currencies of different countries are bought and sold is called as a foreign exchange market. The foreign exchange market is commonly known as FOREX, a worldwide network that enables the exchanges around the globe. The following are the main functions of foreign exchange market, which are actually the outcome of its working:

1. Transfer Function

The basic and the most visible function of foreign exchange market is the transfer of funds (foreign currency) from one country to another for the settlement of payments. It basically includes the conversion of one currency to another, wherein the role of FOREX is to transfer the purchasing power from one country to another.

For example, If the exporter of India import goods from the USA and the payment is to be made in dollars, then the conversion of the rupee to the dollar will be facilitated by FOREX. The transfer function is performed through a use of credit instruments, such as bank drafts, bills of foreign exchange, and telephone transfers.

2. Credit Function

FOREX provides a short-term credit to the importers so as to facilitate the smooth flow of goods and services from country to country. An importer can use credit to finance the foreign purchases. Such as an Indian company wants to purchase the machinery from the USA, can pay for the purchase by issuing a bill of exchange in the foreign exchange market, essentially with a three-month maturity.

3. Hedging Function

The third function of a foreign exchange market is to hedge foreign exchange risks. The parties to the foreign exchange are often afraid of the fluctuations in the exchange rates, i.e., the price of one currency in terms of another. The change in the exchange rate may result in a gain or loss to the party concerned.

Thus, due to this reason the FOREX provides the services for hedging the anticipated or actual claims/liabilities in exchange for the forward contracts. A forward contract is usually a three month contract to buy or sell the foreign exchange for another currency at a fixed date in the future at a price agreed upon today. Thus, no money is exchanged at the time of the contract.

There are several dealers in the foreign exchange markets, the most important amongst them are the banks. The banks have their branches in different countries through which the foreign exchange is facilitated, such service of a bank are called as Exchange Banks.

Notes

1.8 PARTICIPANTS OF FOREIGN EXCHANGE MARKETS

Unlike a stock market, the foreign exchange market is divided into levels of access. At the top is the interbank foreign exchange market, which is made up of the largest commercial banks and securities dealers. Within the interbank market, spreads, which are the difference between the bids and ask prices, are razor sharp and not known to players outside the inner circle. The difference between the bid and ask prices widens (for example from 0 to 1 pip to 1–2 pips for currencies such as the EUR) as you go down the levels of access. This is due to volume. If a trader can guarantee large numbers of transactions for large amounts, they can demand a smaller difference between the bid and ask price, which is referred to as a better spread. The levels of access that make up the foreign exchange market are determined by the size of the "line" (the amount of money with which they are trading). The top-tier interbank market accounts for 51% of all transactions. From there, smaller banks, followed by large multi-national corporations (which need to hedge risk and pay employees in different countries), large hedge funds, and even some of the retail market makers. According to Galati and Melvin, "Pension funds, insurance companies, mutual funds, and other institutional investors have played an increasingly important role in financial markets in general and in FX markets in particular, since the early 2000s." (2004) In addition, he notes, "Hedge funds have grown markedly over the 2001–2004 period in terms of both number and overall size". Central banks also participate in the foreign exchange market to align currencies to their economic needs.

1. Commercial companies

An important part of the foreign exchange market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. Commercial companies often trade fairly small amounts compared to those of banks or speculators, and their trades often have little short-term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency's exchange rate. Some multinational corporations (MNCs) can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

2. Central banks

National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market. Nevertheless, the effectiveness of central bank "stabilizing speculation" is doubtful because central banks do not go bankrupt if they make large losses, like other traders would. There is also no convincing evidence that they actually make a profit from trading.

3. Foreign exchange fixing

Foreign exchange fixing is the daily monetary exchange rate fixed by the national bank of each country. The idea is that central banks use the fixing time and exchange rate to evaluate the behavior of their currency. Fixing exchange rates reflect the real value of equilibrium in the market. Banks, dealers and traders use fixing rates as a market trend indicator.

The mere expectation or rumor of a central bank foreign exchange intervention might be enough to stabilize a currency. However, aggressive intervention might be used several times each year in countries with a dirty float currency regime. Central banks do not always achieve their objectives. The combined resources of the market can easily overwhelm any central bank. Several scenarios of this nature were seen in the 1992–93 European Exchange Rate Mechanism collapse, and in more recent times in Asia.

Notes

4. Investment management firms

Investment management firms (who typically manage large accounts on behalf of customers such as pension funds and endowments) use the foreign exchange market to facilitate transactions in foreign securities. For example, an investment manager bearing an international equity portfolio needs to purchase and sell several pairs of foreign currencies to pay for foreign securities purchases.

Some investment management firms also have more speculative specialist currency overlay operations, which manage clients' currency exposures with the aim of generating profits as well as limiting risk. While the number of this type of specialist firms is quite small, many have a large value of assets under management and can therefore generate large trades.

5. Retail foreign exchange traders

Individual retail speculative traders constitute a growing segment of this market. Currently, they participate indirectly through brokers or banks. Retail brokers, while largely controlled and regulated in the USA by the Commodity Futures Trading Commission and National Futures Association, have previously been subjected to periodic foreign exchange fraud. To deal with the issue, in 2010 the NFA required its members that deal in the Forex markets to register as such (I.e., Forex CTA instead of a CTA). Those NFA members that would traditionally be subject to minimum net capital requirements, FCMs and IBs, are subject to greater minimum net capital requirements if they deal in Forex. A number of the foreign exchange brokers operate from the UK under Financial Services Authority regulations where foreign exchange trading using margin is part of the wider over-the-counter derivatives trading industry that includes contracts for difference and financial spread betting.

There are two main types of retail FX brokers offering the opportunity for speculative currency trading: brokers and dealers or market makers. Brokers serve as an agent of the customer in the broader FX market, by seeking the best price in the market for a retail order and dealing on behalf of the retail customer. They charge a commission or "mark-up" in addition to the price obtained in the market. Dealers or market makers, by contrast, typically act as principals in the transaction versus the retail customer, and quote a price they are willing to deal at.

6. Non-bank foreign exchange companies

Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. These are also known as "foreign exchange brokers" but are distinct in that they do not offer speculative trading but rather currency exchange with payments (i.e., there is usually a physical delivery of currency to a bank account).

It is estimated that in the UK, 14% of currency transfers/payments are made via Foreign Exchange Companies. These companies' selling point is usually that they will offer better exchange rates or cheaper payments than the customer's bank. These companies differ from Money Transfer/Remittance Companies in that they generally offer higher-value services. The volume of transactions done through Foreign Exchange Companies in India amounts to about USD 2 billion per day This does not compete favorably with any well-developed foreign exchange market of international repute, but with the entry of online Foreign Exchange Companies the market is steadily growing . Around 25% of currency transfers/ payments in India are made via non-bank Foreign Exchange Companies. Most of these companies use the USP of better exchange rates than the banks. They are regulated by FEDAI and any transaction in foreign Exchange is governed by the Foreign Exchange Management Act, 1999 (FEMA).

7. Money transfer/remittance companies and bureaux change

Money transfer companies/remittance companies perform high-volume low-value transfers generally by economic migrants back to their home country. In 2007, the Aite Group estimated that there were $369 billion of remittances (an increase of 8% on the previous year). The four largest foreign markets

Notes (India, China, Mexico and the Philippines) receive $95 billion. The largest and best known provider is Western Union with 345,000 agents globally, followed by UAE Exchange. Bureaux de change or currency transfer companies provide low value foreign exchange services for travelers. These are typically located at airports and stations or at tourist locations and allow physical notes to be exchanged from one currency to another. They access the foreign exchange markets via banks or non-bank foreign exchange companies.

1.9 TYPES OF FOREIGN EXCHANGE MARKETS

Foreign exchange markets exist to allow business owners to purchase currency in another country so they can do business in that country. The "FX" market, also called the Forex market, is a worldwide network of currency traders who work around the clock to complete these transactions, and their work drives the exchange rate for currencies around the world.

1. Spot Market

These are the quickest transactions involving currency in foreign markets. These transactions involve immediate payment at the current exchange rate, which is also called the spot rate. The Federal Reserve says the spot market accounts for one-third of all currency exchange and trades usually take place within two days of the agreement. This does leave the traders open to the volatility of the currency market, which can raise or lower the price between the agreement and the trade.

The spot market or cash market is a public financial market in which financial instruments or commodities are traded for immediate delivery. It contrasts with a futures market, in which delivery is due at a later date. In a spot market, settlement normally happens in T+2 working days, i.e., delivery of cash and commodity must be done after two working days of the trade date. A spot market can be through an exchange or over-the-counter (OTC). Spot markets can operate wherever the infrastructure exists to conduct the transaction.

Examples:

The spot foreign exchange market imposes a two-day delivery period, originally due to the time it would take to move cash from one bank to another. Most speculative retail forex trading is done as spot transactions on an online trading platform but this speculative practice is to be avoided since in the moral context speculation in the financial market is subject to reprobation as personal behavior and because of the potential damage to the real economy.

The spot market is a commodity or security market where goods, both perishable and non-perishable are sold for money and delivered immediately or within a short span of time. Contracts traded on a spot market are also in effect instantly. The spot market is also recognized as the cash market or physical market. The purchases are settled in cash at the current prices fixed by the market as opposed to the price at the time of distribution. An example of a spot market commodity that is often sold is crude oil. It is sold at the existing prices, and physically supplied later.

A commodity is basic goods, which is substitutable with other similar commodities. Some examples of commodities are grains, gold, oil, electricity and natural gas. Technology has entered the market with commodities such as mobile minutes and bandwidth. Commodities are standardized, and are essential to meet the specific standards to be traded on the spot market. The world spot market or foreign currency trading is a vast spot market. It is the simultaneous exchange of one nation's currency with another. The way it works is through a stakeholder choosing a currency pair.

Spot markets are also referred to as "physical markets" or "cash markets" because trades in these markets mean the cash is being swapped for the asset effectively immediately. While the official transfer

of funds between the buyer and sell may take time, such as T+2 in the stock market, in a spot transaction both parties are agreeing to the trade right now. A non-spot, or future transaction, is agreeing to a price now, but delivery and transfer of funds will take place at a later date.

Futures trades in contracts that are about to expire are also sometimes called spot trades, since the expiring contract means that the buyer and seller will be exchanging cash for the underlying asset immediately.

Spot Price

The current price of a financial instrument is called the spot price. It is the price at which an instrument can be sold or bought at a particular time and at a specified place (like an exchange). Buyers and sellers create the spot price by posting their buy and sell orders. In liquid markets, the spot price may change by the second, as orders are filled and new ones come into the marketplace.

Organized Markets or Exchanges

Exchanges are organized markets that bring together dealers and traders who buy and sell commodities, securities, currencies, futures, options, and other financial instruments. Based on all the orders provided by participants, the exchange provides the current price and volume available to traders with access to the exchange.

The New York Stock Exchange is an example of an exchange where traders buy and sell stocks. This is a spot market.

The Chicago Mercantile Exchange is an example of an exchange where traders buy and sell futures contracts. This is a futures market exchange.

Trades that occur directly between a buyer and seller are called over-the-counter (OTC). These trades are not facilitated by a major exchange.

In an OTC transaction, the price may be based on spot, or a future price/date. In an OTC transaction the terms are not necessarily standardized, and therefore, may be subject to the discretion of the buyer and/or seller. As with exchanges, OTC stock transactions are typically spot trades, while futures or forward transactions are often not spot.

Types of Spot Market

The spot market which is also called the cash market is a financial market, in which the financial commodities and instruments are transacted for instantaneous delivery. It contrasts with a futures market in which distribution or delivery is owed at a later date. A spot market can be:

1. ***Exchange:*** It is also called an organized market where the security or commodity is traded on an exchange using and changing the current market price.
2. ***Over the counter (OTC):*** In OTC, the trades are based on contracts which are done openly between two parties, and not subject to the guidelines of an exchange. The contract terms are approved between the parties and might be non-standard.

In India, Spot Exchanges refer to electronic trading platforms which facilitate purchase and sale of specified commodities, including agricultural commodities, metals and bullion by providing spot delivery contracts in these commodities.

This market segment functions like the equity segment in the main stock exchanges. Alternatively, this can be considered as a guaranteed direct marketing by sellers of the commodities. Spot Exchanges leverage on the latest technology available in the stock exchange framework for the trading of goods. This is an innovative Indian experiment in the trading of goods and is distinct from what is commonly known as "commodity exchanges" which trade in futures contracts in commodities.

Notes

A restrictive definition of Spot Exchange is provided in the Regulation 2 (1) (ix) of the Warehousing Development and Regulatory Authority (Electronic Warehouse Receipts) Regulations, 2011. Here "Spot Exchange" means a body corporate incorporated under the Companies Act, 1956 and engaged in assisting, regulating or controlling the business of trading in electronic warehouse receipts. However, this regulation is not in existence at the moment as it has been replaced by a new Regulation in 2017 and the new regulation does not use the term spot exchange.

However, present day spot exchange deals with not just warehouse receipts. This is an electronic market where a farmer or a trader can discover the prices of commodities on a national level and can buy or sell goods immediately to anyone across the country. All contracts on the Exchange are compulsory delivery contracts i.e., here all outstanding positions at the end of the day are marked for delivery, which implies that seller has to give delivery and buyer has to take delivery, but on a net basis. (i.e., intra-day squaring off is allowed.). This permission for squaring off, however, ceased to exist from September 2014 onwards.

The facilities provided by the spot exchange, like a normal stock exchange, include clearing and settlement of trades on multilateral netting basis. Trades are settled on guaranteed basis (i.e., in case of default by any person exchange arranges for the payment of money / good) and the exchange collects various margin payments, to ensure this. The exchange also offers various other services such as quality certification, warehousing, warehouse receipt financing, etc.

Advantages of Spot Exchanges

It can lead to efficient price determination as price is determined by a wider cross-section of people from across the country, unlike the present scenario where price discovery for commodities happens only through local participation. This also ensures transparency in price discovery.

Anonymity ensures convergence of different price perceptions, as the buyer or seller merely expresses their desire to trade without even meeting directly.

If spot exchanges can ensure participation in large numbers by farmers, traders and processors across the country it can eliminate the possibility of cartelization and other such unhealthy practices prevalent in commodity markets.

Spot Exchanges can also usher in some best Practices in commodity trading like, system of grading for quality, creating network of warehouses with assaying facilities, facilitating trading in relatively smaller quantities, lower transaction cost etc.

Bank finance available against the goods in the warehouse on easier terms improves holding capacity and can actually in centivize farm production and hence reduce rural poverty.

Since the trades are guaranteed, counter party risk is avoided.

Spot Exchanges in India

As on July 2013, there are four spot exchanges currently operating in the country. These exchanges are:

The National Spot Exchange Ltd. (NSEL) is a national level commodity spot exchange promoted by Financial Technologies (India) Ltd. (FTIL) and National Agricultural Cooperative Marketing Federation of India Limited (NAFED). NSEL commenced "Live" trading on October 15, 2008.

NCDEX Spot Exchange Limited. (established in October 2006)

Reliance Spot Exchange Limited. (Yet to be operationalized)

Indian Bullion Spot Exchange limited (they have described themselves as online over the counter spot exchange)

Notes

For the purpose implementing trading of agricultural produce on e-platform, the state of Karnataka has established a Special Purpose Vehicle (SPV), Rashtriya e Market Services Pvt. Ltd. (ReMS) as a joint venture company between Government of Karnataka and NCDEX Spot Exchange Ltd. In the last one year 55 markets have been linked to the platform and 21 lakh lots of 343 lakh quintals of agri-commodities of a total worth of ₹ 8500 crores traded on the platform as per a press release of Ministry of Agriculture dated 9 July 2015.

Regulatory status of Spot Exchanges in India

Spot Exchange is presently recognized by Ministry of Consumer Affairs, Food & Public Distribution, Government of India. Further the spot exchanges have to obtain licenses from various state governments to facilitate online delivery based trading in various agri-commodities (spot transactions in commodities comes under the regulatory purview of provincial/state governments. In that sense the Exchange operations will be regulated in each state by the respective state governments and will be subjected to various laws of the land like the Companies Act, 1956 Stamp Act, Contracts Act, 1876, APMC Act and others which impinge on its working.).

Regulation 3(c) of the Warehousing Development and Regulatory Authority (Electronic Warehouse Receipts) Regulations, 2011 issued under Section 35 read with Section 51, of the Warehousing (Development and Regulation) Act, 2007, provide for registration of Spot Exchanges by Warehousing Development and Regulatory Authority (WDRA). As per this Regulation, no entity can organize trading in electronic warehouse receipts, unless it has obtained recognition as a Spot Exchange from the Authority under these regulations and holds a valid certificate of commencement of business issued by the WDRA.

Even though Spot exchanges are trading in commodities, the spot trades are not covered under the Forward Contracts (Regulation) Act 1952 (in short FCRA). This Act only covers forward contracts/ commodity derivative contracts traded in a commodity derivative exchange like MCX or NCDEX.

The spot contracts of one day duration are exempted from the provisions of Forward Contract (Regulation) Act, 1952 (FCRA), by Government of India, by Gazette Notification dated June 05, 2007, subject to conditions, which includes – "complying with the regulations by authorities regulating spot trades in the areas where such trades takes place" and empowers the Government of India or its designated agency to call for information or returns related to trade and to impose additional conditions. Though the spot trades are not covered under the FCRA, the activities of the exchange are monitored by the Forward Market Commission (FMC). For this purpose, the spot exchanges submit a monthly report to FMC about the trading and, delivery and settlement data. However, there does not appear to be any legal or statutory backing for the monitoring by the FMC.

Following the settlement default issues in NSEL, the Ministry of Consumer Affairs on 6th August 2013 issued a notification stating that settlement of all outstanding one day forward contracts at National Spot Exchange Limited shall be done under the supervision of Forward Markets Commission and any order or direction issued by the Forward Markets Commission in this regard shall be binding upon the National Spot Exchange Limited and any person, intermediary or warehouse connected with the National Spot Exchange Limited, and for this purpose, the Forward Markets Commission is authorized to take such measures, as it deems fit. Later this exemption from floating one day contracts which could be squared off for creating liquidity was withdrawn for all such exchanges in September 2014, due to the scam that unfolded in 2013 at National Spot Exchange Ltd. (NSEL). Hence, at present, their operations are limited to just delivery based trades. In 2015, following the NSEL crisis, FMC itself was decided to be merged with the securities market regulator - Securities and Exchange Board of India (SEBI).

International Scenarios

The warehouse receipt forms the basis for the creation of a spot, or cash, market. If transactions involve the delivery of goods on a , warehouse receipts can form the basis for the creation of a forward market and for the delivery system in a commodity futures exchange.

Notes

Some of the commodity futures exchanges also provide for spot contract trading, though the volumes are far less compared to the futures trading volumes. The popular spot contracts are available in currency, gold or electricity/power rather than in agriculture.

Globally Spot Exchanges are known to be mostly localized entities with a regional presence. Successful national level spot exchanges are being developed.

Bulgaria's largest commodity exchange, the Sofia Commodity Exchange, is one of the few exchanges in the European and Central Asian countries offering spot and futures trading. Established in 1991, the exchange is using WHRs for its physical deliveries.

In Poland, the Warsaw Commodity Exchange (WGT)'s agricultural spot commodity market, the Internetowa Gielda Towarowa (IGT), an electronic trading platform for the cash commodity market, and is known to be the largest B2Btrading platform in Poland and one of the large stagricultural spot markets in Europe.

In December 2008, the Regional Financial Center of Almaty city together with the Russian Federation's stock exchange, the Russian Trading System (RTS), announced the creation of a new commodity exchange, the Eurasian Trading System (ETS). ETS was initially designed for spot and derivatives trading in raw materials and commodities. It started trading spot and forward grain contracts in March 2009. However, the spot volumes are known to be far less than futures volumes.

Around 45 commodity exchanges are officially registered in Russia and almost all of them are spot markets trading a wide range of industrial goods and agricultural commodities. St Peters burg exchange is known to be the major spot exchange there.

London Stock Exchange claims to have launched the world's very first committed and distinct trading platform for commodities through Exchange Traded Commodities (ETCs) Platform. However, this is not strictly a Spot exchange. Exchange Traded Commodities (ETCs) are investment vehicles (asset backed bonds) that track the performance of an under lying commodity index including total return indices based on a single commodity.

2. Futures Market

As the name implies, these transactions involve future payment and future delivery at an agreed exchange rate, also called the future rate. These contracts are standardized, which means the elements of the agreement are set and non-negotiable. It also takes the volatility of the currency market, specifically the spot market, out of the equation. These are popular among traders who make large currency transactions and are seeking a steady return on their investments.

In order to understand fully what a futures market it is, it's important to understand the basics of futures contracts, the assets traded in these markets.

Futures contracts are made in an attempt by producers and suppliers of commodities to avoid market volatility. These producers and suppliers negotiate contracts with an investor who agrees to take on both the risk and reward of a volatile market.

For instance, if a coffee farm sells green coffee beans at $4 per pound to a roaster, and the roaster sells that roasted pound at $10 per pound and both are making a profit at that price, they'll want to keep those costs at a fixed rate. The investor agrees that if the price for coffee goes below a set rate, then the investor agrees to pay the difference to the coffee farmer. If the price of coffee goes higher than a certain price, then the investor gets to keep profits. For the roaster, if the price of green coffee goes above an agreed rate, then the investor pays the difference and the roaster gets the coffee at a predictable rate. If the price of green coffee is lower than an agreed upon rate, the roaster pays the same price and the investor gets the profit.

Notes

Futures markets or futures exchanges are where these financial products are bought and sold for delivery at some agreed-upon date in the future with a price fixed at the time of the deal. Futures markets are for more than simply agricultural based contracts, and now involve the buying, selling, and hedging of financial products and future values of interest rates. Futures contracts can be made or "created" as long as open interest is increased, unlike other securities which are issued. The size of futures markets (which usually increase when the stock market outlook is uncertain) is larger than that of commodity markets, and are a key part of the financial system.

Large futures markets run their own clearing houses where they can both take revenue the trading itself and from the processing of trades after the fact. Some of the biggest futures markets that operate their own clearing houses include the Chicago Mercantile Exchange, the ICE, and Eurex. Other markets like CBOE and LIFFE have outside clearing houses (Options Clearing Corporation and LCH. Clearnet respectively) settle trades. Most all futures markets are registered with the Commodity Futures Trading Commission, the main U.S. body in charge of regulation of futures markets. Exchanges are usually regulated by the nations regulatory body in the country in which they are based.

A futures exchange or futures market is a central financial exchange where people can trade standardized futures contracts; that is, a contract to buy specific quantities of a commodity or financial instrument at a specified price with delivery set at a specified time in the future. These types of contracts fall into the category of derivatives. The opposite of the futures market is the spots market, where trades will occur immediately (2 business days) after a transaction agreement has been made, rather than at a predetermined time in the future. Futures instruments are priced according to the movement of the underlying asset (stock, physical commodity, index, etc.). The aforementioned category is named "derivatives" because the value of these instruments is derived from another asset class.

History

Ancient times

In Ancient Mesopotamia, around 1750 BC, the sixth Babylonian king, Hammurabi, created one of the first legal codes: the Code of Hammurabi. Hammurabi's Code allowed sales of goods and assets to be delivered for an agreed price, at a future date; required contracts to be in writing and witnessed; and allowed assignment of contracts. The code facilitated the first derivatives, in the form of forward and futures contracts. An active derivatives market existed, with trading carried out at temples.

One of the earliest written records of futures trading is in Aristotle's Politics. He tells the story of Thales, a poor philosopher from Miletus who developed a "financial device, which involves a principle of universal application". Thales used his skill in forecasting and predicted that the olive harvest would be exceptionally good the next autumn. Confident in his prediction, he made agreements with local olive-press owners to deposit his money with them to guarantee him exclusive use of their olive presses when the harvest was ready. Thales successfully negotiated low prices because the harvest was in the future and no one knew whether the harvest would be plentiful or pathetic and because the olive-press owners were willing to hedge against the possibility of a poor yield. When the harvest-time came, and a sharp increase in demand for the use of the olive presses outstripped supply (availability of the presses), he sold his future use contracts of the olive presses at a rate of his choosing, and made a large quantity of money. This is a very loose example of futures trading and, in fact, more closely resembles an option contract, given that Thales was not obliged to use the olive presses if the yield was poor.

Modern era

The first modern organized futures exchange began in 1710 at the Dojima Rice Exchange in Osaka, Japan.

The London Metal Market and Exchange Company (London Metal Exchange) was founded in 1877, but the market traces its origins back to 1571 and the opening of the Royal Exchange, London.

Notes Before the exchange was created, business was conducted by traders in London coffee houses using a makeshift ring drawn in chalk on the floor. At first only copper was traded. Lead and zinc were soon added but only gained official trading status in 1920. The exchange was closed during World War II and did not re-open until 1952. The range of metals traded was extended to include aluminium (1978), nickel (1979), tin (1989), aluminium alloy (1992), steel (2008), and minor metals cobalt and molybdenum (2010). The exchange ceased trading plastics in 2011. The total value of the trade is around $US 11.6 trillion annually.

The United States followed in the early 19th century. Chicago has the largest future exchange in the world, the Chicago Mercantile Exchange. Chicago is located at the base of the Great Lakes, close to the farmlands and cattle country of the Midwest, making it a natural center for transportation, distribution, and trading of agricultural produce. Gluts and shortages of these products caused chaotic fluctuations in price, and this led to the development of a market enabling grain merchants, processors, and agriculture companies to trade in "to arrive" or "cash forward" contracts to insulate them from the risk of adverse price change and enable them to hedge. In March 2008 the Chicago Mercantile Exchange announced its acquisition of NYMEX Holdings, Inc., the parent company of the New York Mercantile Exchange and Commodity Exchange. CME's acquisition of NYMEX was completed in August 2008.

For most exchanges, forward contracts were standard at the time. However, most forward contracts were not honored by both the buyer and the seller. For instance, if the buyer of a corn forward contract made an agreement to buy corn, and at the time of delivery the price of corn differed dramatically from the original contract price, either the buyer or the seller would back out. Additionally, the forward contracts market was very illiquid and an exchange was needed that would bring together a market to find potential buyers and sellers of a commodity instead of making people bear the burden of finding a buyer or seller.

In 1848 the Chicago Board of Trade (CBOT) was formed. Trading was originally in forward contracts; the first contract (on corn) was written on March 13, 1851. In 1865 standardized futures contracts were introduced.

The Chicago Produce Exchange was established in 1874, renamed the Chicago Butter and Egg Board in 1898 and then reorganised into the Chicago Mercantile Exchange (CME) in 1919. Following the end of the postwar international gold standard, in 1972 the CME formed a division called the International Monetary Market (IMM) to offer futures contracts in foreign currencies: British pound, Canadian dollar, German mark, Japanese yen, Mexican peso and Swiss franc.

In 1881 a regional market was founded in Minneapolis, Minnesota, and in 1883 introduced futures for the first time. Trading continuously since then, today the Minneapolis Grain Exchange (MGEX) is the only exchange for hard red spring wheat futures and options.

Futures trading used to be very active in India in the early to late 19th Century in the Marwari businessmen community. Several business families made their fortunes in regular Opium futures trading in Calcutta and Bombay. There are records available of standardized Opium futures contracts done in 1870-1880's in Calcutta. There are strong grounds to believe that Commodity futures could have existed in India for thousands of years before that with references to the existence of market operations similar to the modern day Futures market in Kautilya's 'Arthashastra" written in 2nd century BCE. The first organised futures market was established only in 1875 by the Bombay Cotton Trade Association to trade in cotton contracts. This occurred soon after the establishment of trading in Cotton Futures in UK, as Bombay was a very important hub for Cotton Trade in the British Empire. Futures trading in Raw Jute and Jute Goods began in Calcutta with the establishment of the Calcutta Hessian Exchange Ltd., in 1919. In modern times, most of the futures trading happens in the National Multi commodity Exchange (NMCE) which commenced futures trading in 24 commodities on 26 November 2002 on a national scale. Currently (August 2007) 62 commodities are being traded in NMCE.

Notes

Recent Developments

The 1970s saw the development of the financial futures contracts, which allowed trading in the future value of interest rates. These (in particular the 90-day Eurodollar contract introduced in 1981) had an enormous impact on the development of the interest rate swap market.

Today, the futures markets have far outgrown their agricultural origins. With the addition of the New York Mercantile Exchange (NYMEX) the trading and hedging of financial products using futures dwarfs the traditional commodity markets, and plays a major role in the global financial system, trading over $1.5 trillion per day in 2005.

The recent history of these exchanges (Aug 2006) finds the Chicago Mercantile Exchange trading more than 70% of its Futures contracts on its "Globex" trading platform and this trend is rising daily. It counts for over $45.5 billion of nominal trade (over 1 million contracts) every single day in "electronic trading" as opposed to open outcry trading of futures, options and derivatives.

In June 2001 Intercontinental Exchange (ICE) acquired the International Petroleum Exchange (IPE), now ICE Futures, which operated Europe's leading open-outcry energy futures exchange. Since 2003 ICE has partnered with the Chicago Climate Exchange (CCX) to host its electronic marketplace. In April 2005 the entire ICE portfolio of energy futures became fully electronic.

In 2005, The Africa Mercantile Exchange (AfMX) became the first African commodities market to implement an automated system for the dissemination of market data and information online in real-time through a wide network of computer terminals. As at the end of 2007, AfMX had developed a system of secure data storage providing online services for brokerage firms. The year 2010, saw the exchange unveil a novel system of electronic trading. After extends the potential volume of processing of information and allows the Exchange to increase its overall volume of trading activities.

In 2006 the New York Stock Exchange teamed up with the Amsterdam-Brussels-Lisbon-Paris Exchanges "Euronext" electronic exchange to form the first transcontinental futures and options exchange. These two developments as well as the sharp growth of internet futures trading platforms developed by a number of trading companies clearly points to a race to total internet trading of futures and options in the coming years.

In terms of trading volume, the National Stock Exchange of India in Mumbai is the largest stock futures trading exchange in the world, followed by JSE Limited in Sandton, Gauteng, South Africa.

Nature of Contracts

Further Information: Futures Contract

Exchange-traded contracts are standardized by the exchanges where they trade. The contract details what asset is to be bought or sold, and how, when, where and in what quantity it is to be delivered. The terms also specify the currency in which the contract will trade, minimum tick value, and the last trading day and expiry or delivery month. Standardized commodity futures contracts may also contain provisions for adjusting the contracted price based on deviations from the "standard" commodity, for example, a contract might specify delivery of heavier USDA Number 1 oats at par value but permit delivery of Number 2 oats for a certain seller's penalty per bushel.

Before the market opens on the first day of trading a new futures contract, there is a specification but no actual contracts exist. Futures contracts are not issued like other securities, but are "created" whenever Open interest increases; that is, when one party first buys (goes long) a contract from another party (who goes short). Contracts are also "destroyed" in the opposite manner whenever Open interest decreases because traders resell to reduce their long positions or rebuy to reduce their short positions.

Speculators on futures price fluctuations who do not intend to make or take ultimate delivery must take care to "zero their positions" prior to the contract's expiry. After expiry, each contract will be

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settled, either by physical delivery (typically for commodity underlyings) or by a cash settlement (typically for financial underlyings). The contracts ultimately are not between the original buyer and the original seller, but between the holders at expiry and the exchange. Because a contract may pass through many hands after it is created by its initial purchase and sale, or even be liquidated, settling parties do not know with whom they have ultimately traded.

Compare this with other securities, in which there is a primary market when an issuer issues the security, and a secondary market where the security is later traded independently of the issuer. Legally, the security represents an obligation of the issuer rather than the buyer and seller; even if the issuer buys back some securities, they still exist. Only if they are legally cancelled can they disappear.

Standardization

The contracts traded on futures exchanges are always standardized. In principle, the parameters to define a contract are endless (see for instance in futures contract). To make sure liquidity is high, there is only a limited number of standardized contracts.

Clearing and Settlement

Most large derivatives exchanges operate their own clearing houses, allowing them to take revenues from post-trade processing as well as trading itself. By netting off the different positions traded, a smaller amount of capital is required as security to cover the trades. Of the big derivatives venues Chicago Mercantile Exchange, ICE and Eurex all clear trades themselves. There is sometimes a division of responsibility between provision of trading facility, and that of clearing and settlement of those trades. Derivative exchanges like the CBOE and LIFFE take responsibility for providing the trading environments, settlement of the resulting trades are usually handled by clearing houses that serve as central counterparties to trades done in the respective exchanges. The Options Clearing Corporation (OCC) and LCH.Clearnet (London Clearing House) respectively are the clearing corporations for CBOE and LIFFE, although LIFFE and parent NYSE Euronext has long stated its desire to develop its own clearing service.

Central Counterparty

Derivative contracts are leveraged positions whose value is volatile. They are usually more volatile than their underlying asset. This can lead to credit risk, in particular counterparty risk: a situation in which one party to a trade loses such a large sum of money that it is unable to honor its settlement obligation. In a safe trading environment, the parties to a trade need to be assured that the counterparties will honor the trade, no matter how the market has moved. This requirement can lead to complex arrangements like credit assessments and the setting of trading limits for each counterparty, thus removing many of the advantages of a centralised trading facility. To prevent this, a clearing house interposes itself as a counterparty to every trade, in order to extend a guarantee that the trade will be settled as originally intended. This action is called novation. As a result, trading firms take no risk on the actual counterparty to the trade, but instead the risk falls on the clearing corporation performing a service called central counterparty clearing. The clearing corporation is able to take on this risk by adopting an efficient margining process.

Margin and Mark-to-Market

A margin is collateral that the holder of a financial instrument has to deposit to cover some or all of the credit risk of their counterparty, in this case the central counterparty clearing houses. Clearing houses charge two types of margins: the Initial Margin and the Mark-To-Market margin.

The Initial Margin is the sum of money (or collateral) to be deposited by a firm to the clearing corporation to cover possible future loss in the positions (the set of positions held is also called the portfolio) held by a firm. Several popular methods are used to compute initial margins. They include the CME-owned SPAN (a grid simulation method used by the CME and about 70 other exchanges), STANS

(a Monte Carlo simulation based methodology used by the OCC), TIMS (earlier used by the OCC, and still being used by a few other exchanges).

The Mark-to-Market Margin (MTM margin) on the other hand is the margin collected to offset losses (if any) that have already been incurred on the positions held by a firm. This is computed as the difference between the cost of the position held and the current market value of that position. If the resulting amount is a loss, the amount is collected from the firm; else, the amount may be returned to the firm (the case with most clearing houses) or kept in reserve depending on local practice. In either case, the positions are 'marked-to-market' by setting their new cost to the market value used in computing this difference. The positions held by the clients of the exchange are marked-to-market daily and the MTM difference computation for the next day would use the new cost figure in its calculation.

Clients hold a margin account with the exchange, and every day the swings in the value of their positions is added to or deducted from their margin account. If the margin account gets too low, they have to replenish it. In this way it is highly unlikely that the client will not be able to fulfill his obligations arising from the contracts. As the clearing house is the counterparty to all their trades, they only have to have one margin account. This is in contrast with OTC derivatives, where issues such as margin accounts have to be negotiated with all counterparties.

A futures contract is a type of derivative or financial contract in which two parties agree to make a certain transaction on a specified future date at a specified current price. Trading futures contracts are also known as margin trading.

Margin trading gives a leverage of capital as only a margin needed, usually 5 to 10% of the total value of the contract to trade.

Futures have been gaining popularity throughout the recent years as investors and traders are searching for alternatives for better return of investments and with that popularity, arises different types of futures contract.

Futures contract are classified into two big categories -financial futures and commodities futures.

Types of Future Market

Eurodollar Futures

Eurodollar futures are U.S. dollars that are deposited outside the country in commercial banks mainly in Europe which are known to settle international transactions. They are not guaranteed by any government but only by the obligation of the bank that is holding them.

U.S. Treasury Futures

Because U.S. Dollars is the reserved currency for most countries, the stability of the dollars allows for treasury futures market and instruments such as treasury bonds and treasury bills.

Foreign Government Debt Futures

Most government issue debt that are corresponded to the futures markets that are listed around the world.

Swap Futures

This is generally agreements that are between two parties to exchange periodic interest payments.

Forex Futures

This type of futures is to manage the risks and take advantage of related forex exchange rate fluctuations.

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Single Stock Futures

Most popular futures contracts are related to the equity markets, they are also known as security futures. There are about 10 companies in Malaysia that offer single stock futures. They are Bursa Malaysia Bhd, Air Asia Bhd, AMMB Holdings Bhd, Berjaya Sports Toto Bhd, Genting Bhd, IOI Corporation Bhd, Maxis Communications Bhd, RHB Capital Bhd, Scomi Group Bhd and Telekom Malaysia Bhd.

Index Futures

Futures that are based on the stock index. In the case of the Kuala Lumpur Composite Index, the index futures will be the FTSE Bursa Malaysia KLCI Futures (FKLI).

Types of Commodities Futures

Metals

Major metals traded with futures contracts include copper, gold, platinum, palladium and silver, which are listed on the New York Mercantile Exchange which has merged with the Chicago Mercantile Exchange.

Energy

The most popular energy futures contracts are crude oil, heating oil and natural gas. They have become an important indicator of world economic and political developments and are very much influenced by producing nations such as Malaysia.

Grains & Oil Seeds

Grains such as soybeans and oil seeds are essential to food and feed supplies, and prices are sensitive to the weather conditions, and also to economic conditions that affect demand. Because corn is integral to the increasing popularity of ethanol fuel, the grain markets also are affected by the energy markets and the demand for fuel.

Livestock

Commodity futures on live cattle, feeder cattle, lean hogs and pork bellies are commodities traded at CME Group Inc and prices are affected by consumer demand, competing protein sources, price of feed, and factors that influence the number of animals born and sent to market, such as disease and weather.

Food and Fiber

The food and fiber category for futures trading includes cocoa, coffee, cotton and sugar. In addition to consumer demand globally, factors such as disease, insect's infestation and drought affect prices of these commodities.

3. Forward Market

These transactions are identical to the Futures Market except for one important difference the terms are negotiable between the two parties. This way, the terms can be negotiated and tailored to the needs of the participants. It allows for more flexibility. In many instances, this type of market involves a currency swap, where two entities swap currency for an agreed-upon amount of time, and then return the currency at the end of the contract.

A forward market leads to the creation of forward contracts. While forward contracts, like futures contracts, may be used for both hedging and speculation, there are some notable differences between the two. Forward contracts can be customized to fit a customer's requirements, while futures contracts have standardized features in terms of their contract size and maturity. Forwards are executed between

banks or between a bank and a customer; futures are done on an exchange, which is a party to the transaction. The flexibility of forwards contributes to their attractiveness in the foreign exchange market. *Notes*

Pricing

Prices in the forward market are interest-rate based. In the foreign exchange market, the forward price is derived from the interest rate differential between the two currencies, which is applied over the period from the transaction date to the settlement date of the contract. In interest rate forwards, the price is based on the yield curve to maturity.

Foreign Exchange Forwards

Interbank forward foreign exchange markets are priced and executed as swaps. This means that currency A is purchased vs. currency B for delivery on the spot date at the at the spot rate in the market at the time the transaction is executed. At maturity, currency A is sold vs. currency B at the original spot rate plus or minus the forward points; this price is set when the swap is initiated. The interbank market usually trades for straight dates, such as a week or a month from the spot date. Three- and six-month maturities are among the most common, while the market is less liquid beyond 12 months. Amounts are commonly $25 million or more and can range into the billions.

Customers, both corporations and financial institutions such as hedge funds and mutual funds, can execute forwards with bank counter-party either as a swap or an outright transaction. In an outright forward, currency A is bought vs. currency B for delivery on the maturity date, which can be any business day beyond the spot date. The price is again the spot rate plus or minus the forward points, but no money changes hands until the maturity date. Outright forwards are often for odd dates and amounts; they can be for any size.

Currencies for which there is no standard forward market can be traded via a non-deliverable forward. These are executed off-shore to avoid trading restrictions, are only executed as swaps and are cash-settled in dollars or euros. The most commonly traded currencies are the Chinese remnimbi, South Korean won and Indian rupee.

The forward market is the informal over-the-counter financial market by which contracts for future delivery are entered into. Standardized forward contracts are called futures contracts and traded on a futures exchange.

It should not be confused with the futures market, as:

Future contracts are traded in exchanges whereas a forward contract is traded over the counter.

The forward market is highly customized.

Each party has to deal with counterparty risk, unlike exchange-traded futures where the contracts are renovated.

Futures and forwards share some common characteristics:

a) Both futures and forwards are firm and binding agreements to act at a later date. In most cases this means exchanging an asset at a specific price sometime in the future.

b) Both types of derivatives obligate the parties to make a contract to complete the transaction or offset the transaction by engaging in anther transaction that settles each party's obligation to the other. Physical settlement occurs when the actual underlying asset is delivered in exchange for the agreed-upon price. In cases where the contracts are entered into for purely financial reasons (i.e. the engaged parties have no interest in taking possession of the underlying asset), the derivative may be cash settled with a single payment equal to the market value of the derivative at its maturity or expiration.

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c) Both types of derivatives are considered leveraged instruments because for little or no cash outlay, an investor can profit from price movements in the underlying asset without having to immediately pay for, hold or warehouse that asset.

d) They offer a convenient means of hedging or speculating. For example, a rancher can conveniently hedge his grain costs by purchasing corn several months forward. The hedge eliminates price exposure, and it doesn't require an initial outlay of funds to purchase the grain. The rancher is hedged without having to take delivery of or store the grain until it is needed. The rancher doesn't even have to enter into the forward with the ultimate supplier of the grain and there is little or no initial cash outlay.

e) Both physical settlement and cash settlement options can be keyed to a wide variety of underlying assets including commodities, short-term debt, Eurodollar deposits, gold, foreign exchange, the S&P 500 stock index, etc.

1.10 DEMAND FOR FOREIGN EXCHANGE

The foreign exchange market involves firms, households, and investors who demand and supply currencies coming together through their banks and the key foreign exchange dealers. The demand (or outflow) of foreign exchange comes from those people who need it to make payment in foreign currency.

It is demanded by the domestic residents for the following reasons:

1. ***Imports of Goods and Services:*** Foreign Exchange is demanded to make the payment for imports of goods and services.
2. ***Tourism:*** Foreign exchange is needed to meet expenditure incurred in foreign tours.
3. ***Unilateral Transfers sent abroad:*** Foreign exchange is required for making unilateral transfers like sending gifts to other countries.
4. ***Purchase of Assets in Foreign Countries:*** It is demanded to make payment for purchase of assets, like land, shares, bonds, etc. in the foreign countries.
5. ***Speculation:*** Demand for foreign exchange arises when people want to make gains -from appreciation of currency.

Reasons for 'Rise in Demand' for Foreign Currency

The demand for foreign currency rises in the following situations:

1. When price of a foreign currency falls, imports from that foreign country become cheaper. So, imports increase and hence, the demand for foreign currency rises. For example, if price of 1 US dollar falls from ₹ 75 to ₹ 73, then imports from USA will increase as American goods will become relatively cheaper. It will raise the demand for US dollars.
2. When a foreign currency becomes cheaper in terms of the domestic currency, it promotes tourism to that country. As a result, demand for foreign currency rises.
3. When price of a foreign currency falls, its demand rises as more people want to make gains from speculative activities.

Demand Curve of Foreign Exchange

Demand curve of foreign exchange slope downwards due to inverse relationship between demand for foreign exchange and foreign exchange rate.

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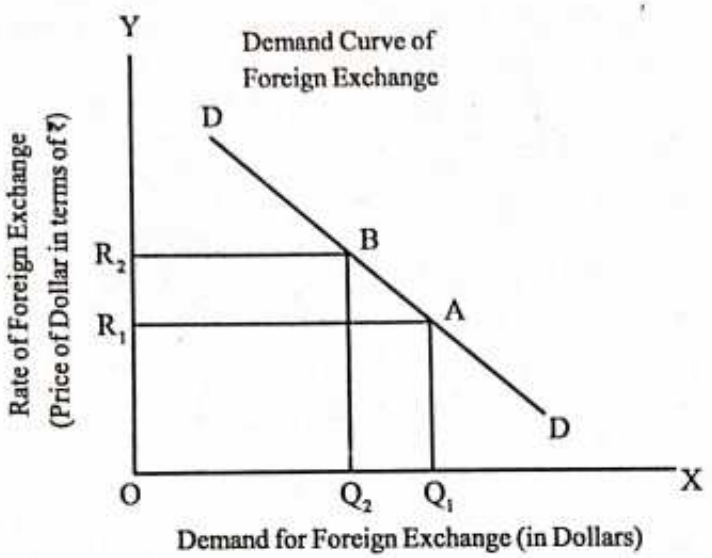

In Fig., demand for foreign exchange (US dollar) and rate of foreign exchange are shown on the X- axis and Y-axis respectively. The negatively sloped demand curve (DD) shows that more foreign exchange (OQ1) is demanded at a low rate of exchange (OR1), whereas, demand for US dollars falls to OQ2 when the exchange rate rises to OR2.

1.11 SUPPLY OF FOREIGN EXCHANGE

The supply (inflow) of foreign exchange comes from those people who receive it due to following reasons:

1. ***Exports of Goods and Services:*** Supply of foreign exchange comes through exports of goods and services.
2. ***Foreign Investment:*** The amount, which foreigners invest in the home country, increases the supply of foreign exchange.
3. ***Remittances (Unilateral transfers) from abroad:*** Supply of foreign exchange increases in the form of gifts and other remittances from abroad.
4. ***Speculation:*** Supply of foreign exchange comes from those who want to speculate on the value of foreign exchange.

Reasons for 'Rise in Supply' of Foreign Currency

The supply of foreign currency rises in the following situations:

1. When price of a foreign currency rises, domestic goods become relatively cheaper. It induces the foreign country to increase their imports from the domestic country. As a result, supply of foreign currency rises. For example, if price of 1 US dollar rises from ₹ 45 to ₹ 50, then exports to USA will increase as Indian goods will become relatively cheaper. It will raise the supply of US dollars.
2. When price of a foreign currency rises, supply of foreign currency rises as people want to make gains from speculative activities.

Supply Curve of Foreign Exchange

Supply curve of foreign exchange slope upwards due to positive relationship between supply for foreign exchange and foreign exchange rate.

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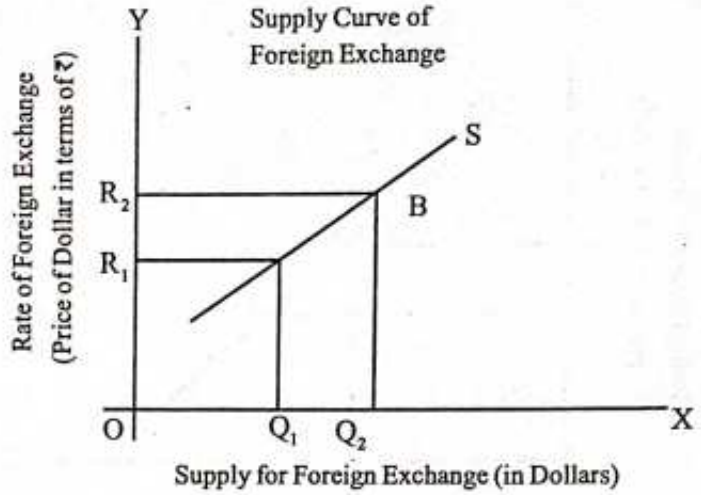

In Fig., supply of foreign exchange (US Dollar) and rate of foreign exchange have been shown on the X-axis and Y-axis respectively. The positively sloped supply curve (SS) shows that supply of foreign exchange rises from OQ1 to OQ2 when the exchange rate rises from OR, to OR2.

1.12 SUPPLY OF FOREIGN EXCHANGE EQUILIBRIUM RATE OF EXCHANGE

The concept of equilibrium rate of exchange corresponds to that of equilibrium price of a commodity or a factor of production. The concept applies only when market forces are allowed to operate freely, and rate of exchange can respond to the interaction of demand and supply functions of a currency in international markets. Rate of exchange of a currency is in equilibrium if there is no excess supply of or demand for it in foreign exchange market and, therefore, there is no inherent tendency for exchange rate to change. This situation continues to hold so long as there no change in demand and/or supply schedule(s) of the currency under consideration.

As in the commodity market, in the foreign exchange market also there is a normal or equal rate of exchange and there is a market of short-term rate of exchange. The equilibrium rate is the "norm" around which the market rate of exchange oscillates.

The equilibrium or normal rate of exchange is determined differently under different monetary standards. The market rate of exchange will reflect the temporary influence of forces of demand and supply in the foreign exchange market, but it will be oscillating around the normal rate of exchange.

According to Scammell, "an equilibrium rate is that rate which, over a standard period, during which full employment is maintained and where there is no change in the amount of restriction on trade or on currency transfer, causes no net change in the holding of gold currency reserves of the country concerned." This definition seems to be very useful for policy-making or for the forming of judgements upon a given exchange rate phenomenon.

In simple words, however, the equilibrium rate of exchange is the rate of exchange at which the par value of home currency with foreign currency is maintained at a stable level over a long period of time, which means it is neither undervalued nor overvalued.

In fact, the concept of equilibrium rate of exchange is analogous to the Marshallian concept of "normal price" in the theory of value. It is the normal rate in the sense that it is determined by the long-term equilibrium in the balance of payment so that demand and supply of foreign exchange in the long run are appropriately balanced at this rate and the foreign exchange reserves position of the country remains intact.

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In short, the exchange rate to be an equilibrium rate must be maintained at par with values of different currencies.

Now the question may be raised: what determines the par values? There are various theoretical explanations advanced in this regard, because the par values and the equilibrium or normal rates of exchange are determined differently under different monetary systems.

Controlled Rate and Equilibrium

Rate of exchange may be chosen arbitrarily and prevented from responding to market forces by means of official regulation and control. However, such a rate may not be in equilibrium.

How to judge whether it is in an equilibrium rate or not? The answer lies in finding out whether this is hiding a 'fundamental equilibrium' (that is, an inconsistency) between domestic and foreign cost-price levels. A fundamental disequilibrium is indicated if:

i) Removal of 'exchange control' (regulating payments in foreign exchange).

ii) Removal of trade restrictions.

Stability of Exchange Rate

An exchange rate is said to be stable if, with given demand and supply schedules of the home currency in exchange markets, it has no tendency to change. In other words, stability or otherwise of the exchange rate of a currency is determined by the nature of its demand and supply schedules.

The demand curve for Rupees is assumed to be inversely related to its exchange rate; thus giving us a negatively sloped demand curve.

i) If the supply schedule is positively related to the exchange rate, then the equilibrium is necessarily a stable one. With reference to the point of intersection between demand and supply curves, the demand curve must be above (below) the supply curve to the left (right) of this point.

ii) If the supply curve is downward sloping, the equilibrium will be stable if the demand is more elastic than supply (that is, the demand curve is flatter than the supply curve).

An exchange rate lower than OA makes the rupee so cheap that demand for rupees exceeds' their supply, and this pushes the exchange rate upwards. Similarly, a rate higher than OA is a self-correcting one.

iii) The demand curve for rupees is less elastic than the supply curve. Here, a fall in external value of the Rupee below OA leads to an excess of its supply over its demand and pushes the exchange rate further down.

Correspondingly, an increase in the external value of the Rupee above OA leads to an excess of its demand over its supply and pushes the exchange rate further up.

1.13 THE BALANCE OF PAYMENTS

Balance of Payments (BOP) accounts are an accounting record of all monetary transactions between a country and the rest of the world. It is the difference over a given time between total payments to foreign nations, arising from imports of goods and services and transfers abroad of capital, interest, grants, etc., and total receipts from foreign nations, arising from exports of goods and services and transfers from abroad of capital, interest, grants, etc.

A country's balance of payments is commonly defined as the record of transactions between its residents and foreign residents over a specified period. Each transaction is recorded in accordance with the principles of double-entry bookkeeping, meaning that the amount involved is entered on each of the two sides of the balance-of-payments accounts.

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These transactions include payments for the country's exports and imports of goods, services, financial capital, and financial transfers. The BOP accounts summarize international transactions for a specific period, usually a year, and are prepared in a single currency, typically the domestic currency for the country concerned. Sources of funds for a nation, such as exports or the receipts of loans and investments, are recorded as positive or surplus items. Uses of funds, such as for imports or to invest in foreign countries, are recorded as negative or deficit items. When all components of the BOP accounts are included they must sum to zero with no overall surplus or deficit. For example, if a country is importing more than it exports, its trade balance will be in deficit, but the shortfall will have to be counter-balanced in other ways such as by funds earned from its foreign investments, by running down central bank reserves or by receiving loans from other countries.

While the overall BOP accounts will always balance when all types of payments are included, imbalances are possible on individual elements of the BOP, such as the current account, the capital account excluding the central bank's reserve account, or the sum of the two. Imbalances in the latter sum can result in surplus countries accumulating wealth, while deficit nations become increasingly indebted. The term "balance of payments" often refers to this sum: a country's balance of payments is said to be in surplus (equivalently, the balance of payments is positive) by a certain amount if sources of funds (such as export goods sold and bonds sold) exceed uses of funds (such as paying for imported goods and paying for foreign bonds purchased) by that amount. There is said to be a balance of payments deficit (the balance of payments is said to be negative) if the former are less than the latter.

Under a fixed exchange rate system, the central bank accommodates those flows by buying up any net inflow of funds into the country or by providing foreign currency funds to the foreign exchange market to match any international outflow of funds, thus preventing the funds flows from affecting the exchange rate between the country's currency and other currencies. Then the net change per year in the central bank's foreign exchange reserves is sometimes called the balance of payments surplus or deficit. Alternatives to a fixed exchange rate system include a managed float where some changes of exchange rates are allowed, or at the other extreme a purely floating exchange rate also known as a purely flexible exchange rate. With a pure float the central bank does not intervene at all to protect or devalue its currency, allowing the rate to be set by the market, and the central bank's foreign exchange reserves do not change.

1.13.1 Evolution of the Balance of Payments Situation

Since the 1950s, the current account has typically been in a deficit position; however, in 1970, 1982 and 1996, it posted a surplus. The trade surplus recorded in 1982 was undoubtedly caused by the recession, which slowed the import of goods and services. During this period, the balance of trade in goods generally posted a surplus, while a substantial deficit persisted in other components of the current account, particularly in services and investment income.

The surplus balance in the goods trade and the deficit on services, investment income and transfers have tended to grow since the mid '70s (see Chart I). The goods trade surplus, which can be attributed largely to exports by the automobile industry as well as energy and forestry products, has usually been overwhelmed by the deficit on services, investment income and transfers, resulting in a deficit on the current account (see Chart II). The deficit on the services, investment income and transfers accounts have usually been caused by large interest payments for outstanding foreign debt.

In 1998, the current account deficit rose to $16.4 billion, an increase of $2.1 billion over 1997. During the same year, exports increased by $20.9 billion while imports grew by $25.7 billion. The more rapid growth of imports than of exports resulted in a smaller goods trade surplus in 1998 than in 1997; it declined from $23.7 billion to $18.9 billion. The lower goods trade surplus was partially offset, however, by a decline in the deficit for the other components of the current account.

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The surplus traditionally posted in the capital and financial account reflects the continuing need of the Canadian economy (and governments) for foreign capital. In 1998, the capital account posted a $5.0 billion surplus, a considerable drop from the 1997 level of $7.5 billion. The financial account showed a $9.5 billion surplus, a $1.1 billion decline from the 1997 level. Since the early '80s, portfolio investments in Canada have been notably higher than foreign direct investments in Canada. However, since 1997 the levels of these two types of investment have been similar.

International capital flows are separated by Statistics Canada into direct investment and portfolio investment. An investment is classified as direct when it allows the investor to influence the management of an enterprise. An ownership level of at least 10% is assumed to provide this ability. Since 1975, increases in Canadian direct investment abroad have been greater than increases in foreign direct investment in Canada. In 1998, Canadian direct investments abroad amounted to $39.4 billion, while foreign direct investments in Canada amounted to $24.5 billion.

Portfolio investments are transactions in bonds and stocks (other than direct investment transactions), official international reserves and foreign investments made by Canadian chartered banks. Net purchases of foreign securities are defined here as total purchases of foreign securities minus total sales of foreign securities. In 1998, net purchases of foreign stocks by Canadians amounted to $15.2 billion, more than three times the 1997 level of $4.5 billion. Foreigners bought Canadian stocks with a total value of $13.5 billion in 1998, up from the $7.5 billion purchased in 1997. Net purchases of Canadian bonds by foreigners totaled $11.8 billion, almost twice the level of the preceding year.

In looking at the current account and the financial account we have to review the net fluctuations in the official reserves before calculating errors and omissions. The official reserves level fell by $7.5 billion in 1998, whereas in 1997 it had increased by $3.4 billion. Reserve fluctuations are caused chiefly by the Bank of Canada's desire to prevent substantial shifts in the value of the Canadian dollar and are included in the financial account.

As described earlier, one means of compensating for a deficit is to draw down official reserves. Other options open to officials include increasing interest rates in order to attract capital and devaluing the currency to rebalance the current account. Raising interest rates also tends to restrain domestic aggregate demand, thereby lowering import levels and moving the current account towards balance. Restrictive fiscal measures, by curbing domestic demand may also serve the same end but at some cost to economic growth and employment levels.

Historically there have been different approaches to the question of how or even whether to eliminate current account or trade imbalances. With record trade imbalances held up as one of the contributing factors to the financial crisis of 2007–2010, plans to address global imbalances have been high on the agenda of policy makers since 2009.

1.13.2 Meaning of Balance of Payment

Balance of payment is a systematic record of a nation's total payments to foreign countries, including the price of imports and the outflow of capital and gold, along with the total receipts from abroad, including the price of exports and the inflow of capital and gold.

1.13.3 Definitions of Balance of Payment

According to Sloman, John, "Balance of payment is an accounting record of all monetary transactions between a country and the rest of the world".

1.13.4 Composition of the Balance of Payments

The main components of the balance of international payments are:

i) The current account

ii) The capital account

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iii) The financial account

iv) The statistical discrepancy

i) The Current Account

The current account records all receipts and payments from goods and services transactions with foreigners. These transactions are divided into three distinct categories: goods and services, investment income and current transfers. In addition to various goods, "goods and services" includes travel, transportation, commercial services and government services. Investment income includes interest as well as profits and dividends on direct investments, portfolio investments and other investments. Current transfers include payments to individuals and institutions, including pensions, withholding taxes and official contributions, such as Canadian aid to other countries.

The current account is affected by several factors. It will post a surplus, or the deficit will shrink, if there is an increase in competitiveness (measured by productivity and relative prices, based on the exchange rate) or if economic growth is less vigorous than in other countries, which would lead to lower import growth. Conversely, an economic decline in foreign countries will negatively affect Canada's current account balance, as the market for Canadian goods and services shrinks.

ii) The Capital Account

The capital account is made up of capital transfers, (e.g. migrants' assets, public service superannuation benefits, debt forgiveness and inheritance funds), and intangible assets (intellectual property rights, such as patents).

iii) The Financial Account

The financial account records Canada's financial transactions with foreign countries, including short-term (1 year or less) and long-term movements of capital. There are two types of capital movements: direct investments in the ownership or control of a business and portfolio investments, which are purchases of company stocks and bonds, both public and private. If a foreign resident purchases a Canadian firm or lends money to the government, a credit, identified by a plus sign, will be recorded in the balance of payments accounting process. In contrast, Canadian residents' purchases of foreign assets are recorded as debits, identified by a minus sign in the balance of payments accounting process. High interest rates in Canada attract foreign capital while encouraging the various levels of government to borrow abroad. Being more speculative in nature, movements of short-term capital exhibit greater sensitivity to short-term interest rates and to exchange rates.

iv) The Statistical Discrepancy

The statistical discrepancy (or errors and omissions) resolves divergences between the balances of the current, capital and financial accounts. A deficit on the current account may be exceeded by a surplus on the capital and financial accounts and this will be partially reflected by a build-up of official currency reserves (changes in such reserves are recorded in the financial account). If, however, the net capital inflow is less than the current account deficit, official reserves must be drawn upon. To the extent that fluctuations in official reserves do not equal the difference between the balances of the current, capital and financial accounts, an allowance for errors and omissions must be made. Such discrepancies often reflect movements of short-term capital which have not been captured by the international financial accounting system. Another source of error is illegal shipments, which, of course, are difficult to account for. The world as a whole records a balance of payments deficit which is mathematically and theoretically impossible. It can be explained by timing differences in accounting for goods in transit, and the possibility that some countries record illegal payments from other countries as receipts.

1.13 5 The IMF definition for Balance of payment (BOP)

Notes

The International Monetary Fund (IMF) use a particular set of definitions for the BOP accounts, which is also used by the Organization for Economic Cooperation and Development (OECD), and the System of National Accounts (SNA). The main difference in the IMF's terminology is that it uses the term "financial account" to capture transactions that would under alternative definitions be recorded in the capital account. The IMF uses the term capital account to designate a subset of transactions that, according to other usage, form a small part of the overall capital account. The IMF separates these transactions out to form an additional top level division of the BOP accounts. Expressed with the IMF definition, the BOP identity can be written:

Current Account + Financial Account + Capital Account + Balancing Item = 0

The IMF uses the term current account with the same meaning as that used by other organizations, although it has its own names for its three leading sub-divisions, which are:

i) The goods and services account (the overall trade balance)

ii) The primary income account (factor income such as from loans and investments)

iii) The secondary income account (transfer payments)

1.13.6 Imbalances of Balance of payment

While the BOP has to balance overall, surpluses or deficits on its individual elements can lead to imbalances between countries. In general there is concern over deficits in the current account. Countries with deficits in their current accounts will build up increasing debt and/or see increased foreign ownership of their assets. The types of deficits that typically raise concern are:

i) A visible trade deficit where a nation is importing more physical goods than it exports even if this is balanced by the other components of the current account.

ii) An overall current account deficit.

iii) A basic deficit which is the current account plus foreign direct investment but excluding other elements of the capital account like short terms loans and the reserve account.

1.13.7 Causes of Balance of Payment Imbalances

There are conflicting views as to the primary cause of BOP imbalances, with much attention on the India which currently has by far the biggest deficit. The conventional view is those current accounts factors are the primary causes these include the exchange rate, the government's fiscal deficit, business competitiveness, and private behavior such as the willingness of consumers to go into debt to finance extra consumption. An alternative view, argued at length in a 2005 paper by Ben Bernanke, is that the primary driver is the capital account, where a global savings glut caused by savers in surplus countries, runs ahead of the available investment opportunities, and is pushed into the India resulting in excess consumption and asset price inflation. The various causes of balance of payment imbalances are as follows:

1. ***Balance of Payments Crisis:*** A BOP crisis, also called a currency crisis, occurs when a nation is unable to pay for essential imports and/or service its debt repayments. Typically, this is accompanied by a rapid decline in the value of the affected nation's currency. Crises are generally preceded by large capital inflows, which are associated at first with rapid economic growth. However a point is reached where overseas investors become concerned about the level of debt their inbound capital is generating, and decide to pull out their funds.

   The resulting outbound capital flows are associated with a rapid drop in the value of the affected nation's currency. This causes issues for firms of the affected nation who have received the inbound investments and loans, as the revenue of those firms is typically mostly derived

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domestically but their debts are often denominated in a reserve currency. Once the nation's government has exhausted its foreign reserves trying to support the value of the domestic currency, its policy options are very limited. It can raise its interest rates to try to prevent further declines in the value of its currency, but while this can help those with debts in denominated in foreign currencies, it generally further depresses the local economy.

2. ***Balancing mechanisms:*** One of the three fundamental functions of an international monetary system is to provide mechanisms to correct imbalances. Broadly speaking, there are three possible methods to correct BOP imbalances, though in practice a mixture including some degree of at least the first two methods tends to be used. These methods are adjustments of exchange rates; adjustment of nation's internal prices along with its levels of demand; and rules based adjustment. Improving productivity and hence competitiveness can also help, as can increasing the desirability of exports through other means, though it is generally assumed a nation is always trying to develop and sell its products to the best of its abilities.

3. ***Rebalancing by changing the exchange rate:*** An upwards shift in the value of a nation's currency relative to others will make a nation's exports less competitive and make imports cheaper and so will tend to correct a current account surplus. It also tends to make investment flows into the capital account less attractive so will help with a surplus there too. Conversely a downward shift in the value of a nation's currency makes it more expensive for its citizens to buy imports and increases the competitiveness of their exports, thus helping to correct a deficit (though the solution often doesn't have a positive impact immediately due to the Marshall-Lerner condition).

   Exchange rates can be adjusted by government in a rules based or managed currency regime, and when left to float freely in the market they also tend to change in the direction that will restore balance. When a country is selling more than it imports, the demand for its currency will tend to increase as other countries ultimately need the selling country's currency to make payments for the exports. The extra demand tends to cause a rise of the currency's price relative to others. When a country is importing more than it exports, the supply of its own currency on the international market tends to increase as it tries to exchange it for foreign currency to pay for its imports, and this extra supply tends to cause the price to fall. BOP effects are not the only market influence on exchange rates however; they are also influenced by differences in national interest rates and by speculation.

4. ***Rebalancing by adjusting internal prices and demand:*** When exchange rates are fixed by a rigid gold standard or when imbalances exist between members of a currency union such as the Euro zone, the standard approach to correct imbalances is by making changes to the domestic economy. To a large degree, the change is optional for the surplus country, but compulsory for the deficit country. In the case of a gold standard, the mechanism is largely automatic. When a country has a favorable trade balance, as a consequence of selling more than it buys it will experience a net inflow of gold. The natural effect of this will be to increase the money supply, which leads to inflation and an increase in prices, which then tends to make its goods less competitive and so will decrease its trade surplus. However, the nation has the option of taking the gold out of economy (sterilizing the inflationary effect) thus building up a hoard of gold and retaining its favorable balance of payments. On the other hand, if a country has an adverse BOP its will experience a net loss of gold, which will automatically have a deflationary effect, unless it chooses to leave the gold standard. Prices will be reduced, making its exports more competitive, and thus correcting the imbalance. While the gold standard is generally considered to have been successful up until 1914, correction by deflation to the degree required by the large imbalances that arose after WWI proved painful, with deflationary policies contributing

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to prolonged unemployment but not re-establishing balance. Apart from the US most former members had left the gold standard by the mid-1930s.

A possible method for surplus countries such as Germany to contribute to re-balancing efforts when exchange rate adjustment is not suitable is to increase its level of internal demand (i.e. its spending on goods). While a current account surplus is commonly understood as the excess of earnings over spending, an alternative expression is that it is the excess of savings over investment. That is:

CA = NS - NI

Where, CA = current account, NS = national savings (private plus government sector), NI = national investment.

If a nation is earning more than it spends the net effect will be to build up savings, except to the extent that those savings are being used for investment. If consumers can be encouraged to spend more instead of saving; or if the government runs a fiscal deficit to offset private savings; or if the corporate sector divert more of their profits to investment, then any current account surplus will tend to be reduced. However in 2009 Germany amended its constitution to prohibit running a deficit greater than 0.35% of its GDP and calls to reduce its surplus by increasing demand have not been welcome by officials, adding to fears that the 2010s will not be an easy decade for the euro zone. In their April 2010 world economic outlook report, the IMF presented a study showing how with the right choice of policy options governments can transition out of a sustained current account surplus with no negative effect on growth and with a positive impact on unemployment.

5. ***Rules based rebalancing mechanisms:*** Nations can agree to fix their exchange rates against each other, and then correct any imbalances that arise by rules based and negotiated exchange rate changes and other methods. The Bretton Woods system of fixed but adjustable exchange rates was an example of a rules based system, though it still relied primarily on the two traditional mechanisms. John Maynard Keynes, one of the architects of the Bretton Woods system had wanted additional rules to encourage surplus countries to share the burden of rebalancing, as he argued that they were in a stronger position to do so and as he regarded their surpluses as negative externalities imposed on the global economy. Keynes suggested that traditional balancing mechanisms should be supplemented by the threat of confiscation of a portion of excess revenue if the surplus country did not choose to spend it on additional imports. However his ideas were not accepted by the Americans at the time. In 2008 and 2009, American economist Paul Davidson had been promoting his revamped form of Keynes's plan as a possible solution to global imbalances which in his opinion would expand growth all rounds without the downside risk of other rebalancing methods.

1.13.8 Indian fiscal 2011-12 Balance of Payment surplus seen at $17.5 billion

New Delhi, April 8: India's financial year 2011-12 balances of payments are likely to be in a surplus of US$ 17.5 billion, as a wide deficit in the current account is offset by robust capital inflows, Standard Chartered Global Research said in a report.

However, the current fiscal BOP will be little changed from US$16.7 billion recorded in the previous fiscal 2010-11, the report said, "An overall capital account surplus in excess of US$80 billion should be enough to finance the current account deficit (driven by higher commodity prices)," the report titled 'The India Chart book: Q1-2011', said.

It expects India's trade deficit to widen to US$172 billion in the financial year 2011-12 from US$133 billion in the previous fiscal 2010-11, as higher prices of commodities including crude oil and metals and rising import volumes will push up the country's import bill.

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On the currency movement, the report said India's deteriorating fundamental outlook and elevated oil prices are likely to stall inflows and push US Dollar-Indian Rupee exchange rate towards 46.20 by June 2011. However, the Indian currency will strengthen to Rs 44.50 per US Dollar over the medium term, the report added.

Balance of Payment (BOP) Account Chart

Credit (Receipts) – Debit (Payments) = Balance [Deficit (-), Surplus (+)]

(i) Deficit if Debit > Credit

(ii) Surplus if Debit < Credit

1.13.9 Difference between Balance of Payment and Balance of Trade

Balance of Payment	*Balance of Trade*
1. Balance of payment is flow of cash between domestic country and all other foreign countries. It includes not only import and export of goods and services but also includes financial capital transfer.	1. Balance of trade may be defined as difference between export and import of goods and services.
2. Balance of payments represents invisible items included in addition to visible items.	2. Balance of trade represents the difference between visible exports and imports of a country.
3. Balance of payment takes into account all payments, both from the foreign sector as well as domestic economy.	3. It is always the desire of a company to have a favorable balance of trade.
4. Balance of Payment will be favourable, if you have surplus in current account for paying your all past loans in your capital account. Balance of payment will be unfavourable, if you have current account deficit and you took more loan from foreigners. After this, you have to pay high interest on extra loan and this will make your BOP unfavourable.	4. If export is more than import, at that time, BOT will be favourable. If import is more than export, at that time, BOT will be unfavourable.
5. Credit means to receipt and earning both current and capital account and debit means total outflow of cash both current and capital account and difference between debit and credit will be net balance of payment.	5. If you see RBI overall balance of payment report, it shows debit and credit of current account. Credit means total export of different goods and services and debit means total import of goods and services in current account.

1.14 THE BALANCE OF TRADE

Balance of trade is the difference in value between the total exports and total imports of a nation during a specific period of time. The balance of trade forms part of the current account, which includes other transactions such as income from the net international investment position as well as international aid. If the current account is in surplus, the country's net international asset position increases correspondingly. A deficit decreases the net international asset position.

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The trade balance is identical to the difference between a country's output and its domestic demand the difference between what goods a country produces and how many goods it buys from abroad; this does not include money re-spent on foreign stock, nor does it factor in the concept of importing goods to produce for the domestic market.

BOP accounts are included they must sum to zero with no overall surplus or deficit. For example, if a country is importing more than it exports, its trade balance will be in deficit, but the shortfall will have to be counterbalanced in other ways such as by funds earned from its foreign investments, by running down central bank reserves or by receiving loans from other countries.

While the overall BOP accounts will always balance when all types of payments are included, imbalances are possible on individual elements of the BOP, such as the current account, the capital account excluding the central bank's reserve account, or the sum of the two. Imbalances in the latter sum can result in surplus countries accumulating wealth, while deficit nations become increasingly indebted. The term "balance of payments" often refers to this sum: a country's balance of payments is said to be in surplus equivalently, the balance of payments is positive by a specific amount if sources of funds such as export goods sold and bonds sold exceed uses of funds such as paying for imported goods and paying for foreign bonds purchased) by that amount. There is said to be a balance of payments deficit (the balance of payments is said to be negative) if the former are less than the latter.

International finance is the branch of economics that studies the dynamics of exchange rates, foreign investment, global financial system, and how these affect international trade. It also studies international projects, international investments and capital flows, and trade deficits. It includes the study of futures, options and currency swaps.

Important theories in international finance include the Mundell-Fleming model, the Optimum Currency Area (OCA) theory, as well as the purchasing power parity (PPP) theory. Whereas international trade theory makes use of mostly microeconomic methods and theories, international finance theory makes use of predominantly macroeconomic methods and concepts. Understanding of the functioning of balance of trade informed the economic policies of Early Modern Europe that are grouped under the heading mercantilism. An early statement appeared in Discourse of the Common Weal of this Realm of England, 1549: "We must always take heed that we buy no more from strangers than we sell them, for so should we impoverish ourselves and enrich them." Similarly a systematic and coherent explanation of balance of trade was made public through Thomas Mun's c1630 "England's treasure by foreign trade or, the balance of our foreign trade is the rule of our treasure"

1.14.1 Meaning of Balance of Trade

Balance of trade is the difference between a country's imports and its exports. Balance of trade is the largest component of a country's balance of payments. Debit items include imports, foreign aid, domestic spending abroad and domestic investments abroad. Credit items include exports, foreign spending in the domestic economy and foreign investments in the domestic economy.

A country has a trade deficit if it imports more than it exports; the opposite scenario is a trade surplus. A positive balance is known as a trade surplus if it consists of exporting more than is imported; a negative balance is referred to as a trade deficit or, informally, a trade gap. The balance of trade is sometimes divided into a goods and a services balance.

Explanation:

The trade balance is identical to the difference between a country's output and its domestic demand. The Balance of Trade encompasses the activity of exports and imports.

The difference between what goods a country produces and how many goods it buys from abroad; this does not include money re-spent on foreign stock, nor does it factor in the concept of importing goods to produce for the domestic market.

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The balance of trade forms part of the current account, which includes other transactions such as income from the international investment position as well as international aid. If the current account is in surplus, the country's net international asset position increases correspondingly. Equally, a deficit decreases the net international asset position.

Measuring the balance of trade can be problematic because of problems with recording and collecting data. As an illustration of this problem, when official data for the entire world's countries are added up, exports exceed imports by almost 1%; it appears the world is running a positive balance of trade with itself. This cannot be true, because all transactions involve an equal credit or debit in the account of each nation. The discrepancy is widely believed to be explained by transactions intended to launder money or evade taxes, smuggling and other visibility problems. However, especially for developed countries, accuracy is likely.

1.14.2 Definition of Balance of Trade

According to ***Sullivan, Arthur and Steven M. Sheffrin,*** "Balance of trade is the difference between the monetary value of exports and imports of output in an economy over a certain period, measured in the currency of that economy. It is the relationship between a nation's imports and exports".

1.14.3 Factors that can affect the Balance of Trade

i) The cost of production (land, labor, capital, taxes, incentives, etc.) in the exporting economy vis-a-vis those in the importing economy;

ii) The cost and availability of raw materials, intermediate goods and other inputs;

iii) Exchange rate movements;

iv) Multi-lateral bilateral and unilateral taxes or restrictions on trade;

v) Non-tariff barriers such as environmental, health or safety standards;

vi) The availability of adequate foreign exchange with which to pay for imports; and

vii) Prices of goods manufactured at home (influenced by the responsiveness of supply)

1.14.4 Indian Balance of Trade

India reported a trade deficit equivalent to 13601 Million USD in November of 2017. India is leading exporter of gems and jewelry, textiles, engineering goods, chemicals, leather manufactures and services. India is poor in oil resources and is currently heavily dependent on coal and foreign oil imports for its energy needs. Other imported products are: machinery, gems, fertilizers and chemicals. Main trading partners are European Union, The United States, China and UAE. This page includes: India Balance of Trade chart, historical data and news.

1.14.5 Composition of Trade Balance

Balance of Trade comprises those products that a country trades on with other countries. The composition of balance of trade consists of the following elements:

i) ***Demand and supply:*** The demand and supply trend defines the cost of domestic products to be sold in the international market.

ii) ***Domestic business:*** Sound domestic policies are required to boost production and international trade. Some countries like the US provide subsidies to local manufacturers for exported goods and services.

iii) ***Trade agreements:*** Bilateral agreements govern international trade and define the products and their prices in the global context.

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iv) *External pressures:* Many countries export items that face heavy competition in international market. This results in market segmentation and low pricing. Countries that are mostly oil exporters or IT hubs tend to generate favorable trade balance due to less competition in the international market. External pressures also work in the form of trade bans. These bans are enforced by either individual countries or international organizations such as the WTO or IMF.

v) *Exchange rate:* For nations with low exchange rate values, balance of trade tends to remain unfavorable. Proactive market policies are required to ensure that a country's trade balance remains favorable. A sound trade balance represents an important benchmark as it reflects economic stability between nations. It fortifies trade ties with other countries and generates immense possibilities to stem job losses, inflation and unemployment.

1.14.6 Determinants of the Balance of trade

There are three major determinants of the trade balance or net exports: Foreign exchange rates, national incomes and domestic and foreign price levels.

i) Effects of the foreign exchange rate

The way the foreign exchange rate affects exports and imports has already been discussed in fair detail. In a nutshell, if the U.S. dollar appreciates (the dollar becomes stronger and the foreign exchange rate increases), exports decline and imports increase, causing the foreign trade deficit to rise. If the dollar depreciates, the foreign trade deficit falls.

ii) Effects of changes in domestic and foreign incomes

Changes in national incomes in foreign countries as well as in the United States have an important effect on net exports.

iii) Conditions where trade imbalances may be problematic

Those who ignore the effects of long run trade deficits may be confusing David Ricardo's principle of comparative advantage with Adam Smith's principle of absolute advantage, specifically ignoring the latter. The economist Paul Craig Roberts notes that the comparative advantage principles developed by David Ricardo do not hold where the factors of production are internationally mobile.

Few economists believe that GDP and employment can be dragged down by an over-large deficit over the long run. Others believe that trade deficits are good for the economy. The opportunity cost of a forgone tax base may outweigh perceived gains, especially where artificial currency pegs and manipulations are present to distort trade.

In 2006, the primary economic concerns focused on: high national debt ($9 trillion), high non-bank corporate debt ($9 trillion), high mortgage debt ($9 trillion), high financial institution debt ($12 trillion), high unfunded Medicare liability ($30 trillion), high unfunded Social Security liability ($12 trillion), high external debt (amount owed to foreign lenders) and a serious deterioration in the United States net international investment position (NIIP) (-24% of GDP), high trade deficits, and a rise in illegal immigration.

These issues have raised concerns among economists and unfunded liabilities were mentioned as a serious problem facing the United States in the President's 2006 State of the Union address. On June 26, 2009, Jeff Immelt, the CEO of General Electric, called for the U.S. to increase its manufacturing base employment to 20% of the workforce, commenting that the U.S. has outsourced too much in some areas and can no longer rely on the financial sector and consumer spending to drive demand.

iv) Conditions where trade imbalances may not be problematic

Small trade deficits are generally not considered to be harmful to either the importing or exporting economy. However, when a national trade imbalance expands beyond prudence (generally thought to be several percent of GDP, for several years), adjustments tend to occur. While unsustainable imbalances

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may persist for long periods (Singapore and New Zealand's surpluses and deficits, respectively), the distortions likely to be caused by large flows of wealth out of one economy and into another tend to become intolerable.

In simple terms, trade deficits are paid for out of foreign exchange reserves, and may continue until such reserves are depleted. At such a point, the importer can no longer continue to purchase more than is sold abroad. This is likely to have exchange rate implications: a sharp loss of value in the deficit economy's exchange rate with the surplus economy's currency will change the relative price of tradable goods, and facilitate a return to balance or (more likely) an over-shooting into surplus the other direction.

More complexly, an economy may be unable to export enough goods to pay for its imports, but is able to find funds elsewhere. Service exports, for example, are more than sufficient to pay for Hong Kong's domestic goods export shortfall. In poorer countries, foreign aid may fill the gap while in rapidly developing economies a capital account surplus often off-sets a current-account deficit. Finally, there are some economies where transfers from nationals working abroad contribute significantly to paying for imports. The Philippines, Bangladesh and Mexico are examples of transfer-rich economies.

1.14.7 Economic Impact of Balance of Trade

Most economists do not believe that trade deficits are inherently good or bad, but must be judged based on the circumstances in which they arose. Large imbalances may sometimes be a sign of underlying economic problems or rigidities. An example includes a situation where exchange rates have been fixed or pegged for political reasons at levels impeding a correction of a trade imbalance.

In order to maintain a negative balance of trade, it must be financed by running down net international assets relative to the case without a deficit. This may be done for example by selling assets, through foreign direct investment or by international borrowing. Potential problems with persistent deficits therefore include the accumulation of foreign debt with associated interest payments or domestic assets passing increasingly into the hands of foreigners.

Deficits may also have intergenerational effects by shifting consumption over time, some generations may gain at the expense of other citizens of countries that run up cumulative trade deficits leave it to their children to pay the bill, in the form of either interest and dividend payments to the rest of the world, or to seeing more and more assets being owned by the rest of the world.

A large trade deficit, in general terms, can only be sustained as long as the rest of the world is willing to finance it. If, for whatever reasons, this ceases, a country may find itself unable to meet its obligations. The mere possibility thereof is likely to result in a rise in interest rates and/or a depreciation of its currency.

However, a trade deficit may be good news if it is used to finance profitable domestic investments or if it is temporary and reflects a boom with strong domestic demand. Further, the consequences of globalization, like the increase of the market share of multinationals and the international merging of stock exchanges decreases the relevance of trade balances of countries according to some sources.

A trade surplus may appear to be a good thing but may not always be so. It is possible for the terms of trade to be lower than before if there is an improvement in the balance of trade (e.g. if an export increase came about by lowering prices). In addition, country with a surplus may come to rely on foreign demand for its industry, which may be problematic once the foreign demand dries up.

An example of an economy in which a positive balance of payments is regarded as a bad thing by some is Japan in the 1990s. The positive balance was partly the result of protectionist measures that also caused the price of goods in Japan to be much higher than they would have been, had imports been freely allowed. The foreign currency Japanese companies earned overseas remained largely unconverted into yen in order to suppress the yen's value, further preventing Japanese consumers from benefiting

from the trade surplus. In addition, the potential benefit from the trade surpluses were partly squandered by spending it on prestige real estate purchases in the United States that often proved unprofitable. *Notes*

Impact on other variables

Trade balance is a component of GDP: other things equal, a surplus increases GDP and deficit reduces it. If this impact is strong enough, it gives rise to the traditional Keynesian multiplier effect with consumption moving in the same direction. In financial terms, trade balance influence the total size and the composition of the current-account balance and, more broadly, it influences the balance of payments (which comprehends not only the trade balance but also income payments, loans and aid from abroad, etc). In particular, long-lasting trade deficit can lead to foreign debt, on which a country has to pay interests. If this debt is judged by market agents as unsustainable, currency crises can erupt. Even before that this perspective materializes; the government can be induced to dampen GDP growth.

Long-term trends: Trade imbalances are widespread throughout the world and persistent over time. In order to reduce the gap with rich countries, poor countries have to rise much faster than them, which are usually their main commercial partners. But this leads to trade deficit, which risks jeopardizing growth with alternate phases of "stop-and-go".

Business cycle behavior: Trade balance tend to be strongly anti-cyclical: in boom periods it usually exhibits deficits, whereas in recessions a trade surplus can help inverting the business cycle.

Physical trade balance: Monetary trade balance is different from physical trade balance (which is expressed in amount of raw materials). Developed countries usually import a lot of primary raw materials from developing countries at low prices. Often, these materials are then converted into finished products, and a significant amount of value is added. Although for instance the EU (as well as many other developed countries) has a balanced monetary trade balance, its physical trade balance (especially with developing countries) is negative, meaning that in terms of materials a lot more is imported than exported. That means the ecological footprint of developed countries is may be larger than that of developing countries, if footprint mainly depends on bulk size.

1.14.8 The Politics and Economics of Foreign Trade

While a foreign trade deficit can be held responsible for some lost jobs, it also provides consumers with lower prices and greater choice. Debate on the foreign trade deficit in the popular media is often unbalanced. During the North American Free Trade Agreement debates in the United States, opponents of the agreement put a lot of emphasis on the "sucking sounds" of jobs lost to Mexico. The trade deficit with Japan is also often debated in a politically charged atmosphere, frequently resulting in Japan-bashing. Recently, the attention has turned to the trade imbalance with the People's Republic of China.

A foreign trade deficit essentially creates a classic conflict between two groups' workers and consumers. Workers as a group may tend to lose due to lost jobs (but not all workers lose since jobs are created in import-related industries). Consumers, on the other hand, gain as explained above. Which group's interest will the government keep in mind in dealing with trade issues? The answer to this question often boils down to whichever group has the greater political influence. It so happens that workers tend to be better organized and they are, thus, able to influence government trade policy in their favor.

Trade Surplus

Trade surplus is a condition in which a country has a positive balance of trade with other countries. Countries that enjoy a trade surplus have more money flowing in than out. This includes both money for the products the country exports and the money spent by foreign visitors to the country. When a nation has a trade surplus, it has more control over its own currency.

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Exports include goods and services produced in a country and sold to one or more other countries. Country exports are of a higher value than imports. Balance of trade is the difference between the value of exports and imports within a specified period of time. A positive balance is a surplus, and a negative balance is a trade deficit.

A trade surplus indicates that there is more demand for the exports of a country than there is demand for foreign products and services. There is therefore a higher employment rate within the country and the standard of living is increased. Positive balance of trade plays an important role in the economic growth of any country.

Trade surplus in goods and services not only influences the level of employment within a country, but it also affects the price level and inflation rate in its economy. As the demand for a country's goods and services increase, producers increase their output to meet the increased demand. This in turn generates additional income that augments the growth of the country's economy. When the economy grows, the output, or gross domestic product, increases and citizens can afford a more expensive lifestyle.

There are drawbacks to the increase in trade surplus. A rise in net exports will force production to meet foreign demand by increasing demand for labor and resource goods and services. Increased demand will increase the cost of wages and raw material, which increases the cost of production. This leads to raised retail prices of goods and services. Therefore, as the trade surplus increases so does inflation.

A trade deficit has a dampening effect on the economy in that it slows growth and increases unemployment as the demand for workers decreases. Whether a deficit has a negative or positive effect depends on who is being affected. Increasing the foreign trade deficit, for example, can be good from the viewpoint of the individual consumer because he or she would end up paying lower prices for goods. Producers and wage earnings, however, would be adversely affected.

Another measure of trade surplus and trade deficit is how they relate to the business cycle within an economy. If a country finds itself in a strong expansion, one strategy is to import more and to provide more price competition. This limits inflation and provides a more varied supply of goods and services than is normally available. On the other hand, during a recession the economy would be better served by exporting more, thus creating more demand and more jobs.

Trade Deficit

A Trade Deficit occurs when the value of a country's imports exceed its exports for a specific period of time, usually a year. The relationship between imports and exports are called the trade balance. When exports exceed imports it is called a trade surplus. Trade deficits can occur in both developing and advanced countries. While a trade surplus contributes to the GDP of a nation, a trade deficit will reduce GDP. While economists state that a controlled short term trade deficit is manageable and in some cases necessary for growth and development, they consider a long-term trade deficit to be a wealth destroyer that can trigger job losses, increase debts and lead to possible speculative attacks on currency. The layman normally thinks of a trade deficit as being bad, but if that deficit means that goods can be bought at a lower price and therefore corporate can increase their profit margins and consumers have greater spending power, then a trade deficit can have beneficial effects.

However, this is not true, as a certain level of trade deficit is required in a flourishing economy. A growth-oriented economy focuses on imports to provide price competition, which in turn limits inflation. In contrast, a trade deficit triggers repercussion during a recession. For instance, the US trade deficit pertaining to goods and services rose to $27.6 billion in March 2009. Japan is also combating high trade deficit. In January 2009, Japan's deficit of ¥952.6 billion indicated that the global recession had weakened the country's exports. A recessive economy endeavors to generate more employment and raise the

demand for domestic products by propelling exports. Hence, a trade deficit has numerous implications for a country's domestic business cycle and economic situation. *Notes*

1.14.9 Indian Trade Deficit

India's trade deficit widened the most in October in at least 17 years, adding pressure on the rupee, Asia's worst performing currency this year. Merchandise exports rose 10.8 percent to $19.9 billion last month from a year earlier, Commerce Secretary Rahul Khullar told reporters in New Delhi yesterday. Imports gained 21.7 percent to $39.5 billion, causing a trade deficit of $19.6 billion. That's the biggest shortfall since April 1994, according to data compiled by Bloomberg.

India's trade gap increased as merchandise shipments grew at the slowest pace in two years, dragged down by waning demand for engineering and petroleum products in Europe, Khullar said. The deficit may enlarge as higher oil costs boost the value of imports, said Hemendra Bhatia, chief currency strategist at Ahmedabad, India-based Vadilal Enterprises Ltd. "The rupee will remain under pressure," Bhatia said in an interview yesterday. "Exports will weaken because of the global slowdown." He expects the currency to fall to as much as 51.20 per dollar by the end of December.

The rupee dropped 0.6 percent to 49.79 against the dollar at 10:29 a.m. in Mumbai, weakening more than 10 percent since Jan. 1. The yield on the 7.80 percent government bond due April 2021 rose seven basis points, or 0.07 percentage point, to 9.10 percent. The BSE India Sensitive Index advanced 0.1 percent.

The trade deficit for the first seven months of the year that started April 1 was $93.7 billion and "that is clearly something to be worried about, because at this rate you're clearly going to breach the $150 billion mark for the fiscal year," he said. India imports almost three-quarters of its oil requirements. Oil prices have gained 6.4 percent in New York this year.

Meanwhile, European finance ministers pledged to roll out a bulked-up rescue fund next month, leaving Greece and Italy on the front lines until then in the fight against the debt crisis. As economic recoveries falter in the U.S. and Europe, India's government plans to increase shipments to Africa and Latin America as it targets $500 billion in exports by 2014. Exports may also get a boost after Pakistan last week granted trade concessions to India. Under the so-called most-favored nation status, Pakistan will give its South Asian neighbor equal standing in international trade by removing non-tariff barriers, lowering customs duties and raising import quotas. India granted most- favored nation status to Pakistan in 1996.

1.14.10 Reasons and Implications of a Trade Deficit

A long-term trade deficit leads to an unstable economy, where unemployment, foreign debt and currency crises become concerns. Agriculture-based economies may face a trade deficit due to:

i) The seasonal nature of trade.

ii) Financial soundness of the domestic business, which significantly impacts the trade balance.

iii) Low domestic production or substandard quality goods downgrade the monetary value of imports.

1.14.11 Economists on Trade Deficits

1. Adam Smith on trade deficits

It is to lay extraordinary restraints upon the importation of goods from those countries with which the balance of trade is supposed to be disadvantageous. Nothing, however, can be more absurd than this whole doctrine of the balance of trade, upon which, not only these restraints, but almost all the other regulations of commerce are founded. When two places trade with one another, this doctrine supposes that, if the balance is even, neither of them either loses or gains; but if it leans in any degree to one side, that one of them loses and the other gains in proportion to its declension from the exact equilibrium.

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2. Frederic Bastiat on the fallacy of trade deficits

The 19th century economist and philosopher Frederic Bastiat expressed the idea that trade deficits actually were a manifestation of profit, rather than a loss. He proposed as an example to suppose that he, a Frenchman, exported French wine and imported British coal, turning a profit. He supposed he was in France, and sent a cask of wine which was worth 50 francs to England. The customhouse would record an export of 50 francs. If, in England, the wine sold for 70 francs (or the pound equivalent), which he then used to buy coal, which he imported into France, and was found to be worth 90 francs in France, he would have made a profit of 40 francs. But the customhouse would say that the value of imports exceeded that of exports and was trade deficit against the ledger of France.

Note that Bastiat only comes to this conclusion thanks to the customhouse's accounting error. The customhouse is valuing imports and exports based on the good's value in their home country, not the price paid when the actual international trade occurs as is conventionally done when calculating the trade balance. Correcting for the accounting error a neutral conclusion is reached: France sells wine for 70 and buys coal for 70, and Bastiat's profit does not come from England but simply from trading goods within France.

By reduction ad absurdum, Bastiat argued that the national trade deficit was an indicator of a successful economy, rather than a failing one. Bastiat predicted that a successful, growing economy would result in greater trade deficits, and an unsuccessful, shrinking economy would result in lower trade deficits. This was later, in the 20th century, affirmed by economist Milton Friedman.

3. John Maynard Keynes on the Balance of Trade

John Maynard Keynes was much preoccupied with the question of balance in international trade. He was the leader of the British delegation to the United Nations Monetary and Financial Conference in 1944 that established the Bretton Woods system of international currency management.

He was the principal author of a proposal the so-called Keynes Plan for an International Clearing Union. The two governing principles of the plan were that the problem of settling outstanding balances should be solved by 'creating' additional 'international money', and that debtor and creditor should be treated almost alike as disturbers of equilibrium. In the event, though, the plans were rejected, in part because "American opinion was naturally reluctant to accept the principle of equality of treatment so novel in debtor-creditor relationships".

His view, supported by many economists and commentators at the time, was that creditor nations may be just as responsible as debtor nations for disequilibrium in exchanges and that both should be under an obligation to bring trade back into a state of balance. Failure for them to do so could have serious consequences. In the words of Geoffrey Crowther, then editor of The Economist, "If the economic relationships between nations are not, by one means or another, brought fairly close to balance, then there is no set of financial arrangements that can rescue the world from the impoverishing results of chaos."

Influenced by Keynes, economics texts in the immediate post-war period put a significant emphasis on balance in trade. For example, the second edition of the popular introductory textbook, An Outline of Money, devoted the last three of its ten chapters to questions of foreign exchange management and in particular the 'problem of balance'. However, in more recent years, since the end of the Bretton Woods system in 1971, with the increasing influence of Monetarist schools of thought in the 1980s, and particularly in the face of large sustained trade imbalances, these concerns and particularly concerns about the destabilizing effects of large trade surpluses have largely disappeared from mainstream economics discourse and Keynes' insights have slipped from view. They are receiving some attention again in the wake of the financial crisis of 2007–2010.

Notes

4. Milton Friedman on trade deficits

In the 1980s, Milton Friedman, the Nobel Prize-winning economist and father of Monetarism, contended that some of the concerns of trade deficits are unfair criticisms in an attempt to push macroeconomic policies favorable to exporting industries.

Prof. Friedman argued that trade deficits are not necessarily important as high exports raise the value of the currency, reducing aforementioned exports, and vice versa for imports, thus naturally removing trade deficits not due to investment. Since 1971, when the Nixon administration decided to abolish fixed exchange rates, America's Current Account accumulated trade deficits have totaled $7.75 Trillion as of 2010. This deficit exists as it is matched by investment coming in to the United States- purely by the definition of the balance of payments; any current account deficit that exists is matched by an inflow of foreign investment.

Milton Friedman's son, David D. Friedman, shares his father's view and cites the comparative advantage concepts of David Ricardo.

In the late 1970s and early 1980s, the U.S. had experienced high inflation and Friedman's policy positions tended to defend the stronger dollar at that time. He stated his belief that these trade deficits were not necessarily harmful to the economy at the time since the currency comes back to the country (country A sells to country B, country B sells to country C who buys from country A, but the trade deficit only includes A and B). However, it may be in one form or another including the possible tradeoff of foreign control of assets. In his view, the "worst case scenario" of the currency never returning to the country of origin was actually the best possible outcome: the country actually purchased its goods by exchanging them for pieces of cheaply-made paper. As Friedman put it, this would be the same result as if the exporting country burned the dollars it earned, never returning it to market circulation. This position is a more refined version of the theorem first discovered by David Hume. Hume argued that England could not permanently gain from exports, because hoarding gold (i.e., currency) would make gold more plentiful in England; therefore, the prices of English goods would rise, making them less attractive exports and making foreign goods more attractive imports. In this way, countries' trade balances would balance out.

Friedman believed that deficits would be corrected by free markets as floating currency rates rise or fall with time to encourage or discourage imports in favor of the exports, reversing again in favor of imports as the currency gains strength. In the real world, a potential difficulty is that currency markets are far from a free market, with government and central banks being major players, and this is unlikely to change within the foreseeable future. Nevertheless, recent developments have shown that the global economy is undergoing a fundamental shift. For many years, the U.S. has borrowed and bought while in general, the rest of the world has lent and sold. However, as Friedman predicted, this paradigm appears to be changing.

Friedman contended that the structure of the balance of payments was misleading. In an interview with Charlie Rose, he stated that "on the books" the US is a net borrower of funds, using those funds to pay for goods and services. He essentially claimed that the foreign assets were not carried on the books at their higher, truer value. Friedman presented his analysis of the balance of trade in Free to Choose, widely considered his most significant popular work.

5. Warren Buffett on trade deficits

The successful American businessman and investor Warren Buffett was quoted in the Associated Press (January 20, 2006) as saying "The U.S trade deficit is a bigger threat to the domestic economy than either the federal budget deficit or consumer debt and could lead to political turmoil... Right now, the rest of the world owns $3 trillion more of us than we own of them." Buffett has proposed a tool called Import Certificates as a solution to the United States' problem and ensure balanced trade.

Notes

1.15 THE BALANCE OF CURRENT ACCOUNT

The balance of the current account tells us if a country has a deficit or a surplus. If there is a deficit, does that mean the economy is weak? Does a surplus automatically mean that the economy is strong?

Not necessarily. But to understand the significance of this part of the BOP, we should start by looking at the components of the current account: goods, services, and income and current transfers.

1. Goods

These are movable and physical in nature and for a transaction to be recorded under "goods," a change of ownership from/to a resident (of the local country) to/from a non-resident (in a foreign country) has to take place. Movable goods include general merchandise, goods used for processing other goods, and non-monetary gold. An export is marked as a credit (money coming in), and an import is noted as a debit (money going out).

2. Services

These transactions result from an intangible action such as transportation, business services, tourism, royalties or licensing. If money is being paid for a service, it is recorded like an import (a debit) and if money is received, it is recorded like an export (credit).

3. Income

Income is money going in (credit) or out (debit) of a country from salaries, portfolio investments (in the form of dividends, for example), direct investments or any other type of investment. Together, goods, services, and income provide an economy with fuel to function. This means that items under these categories are actual resources that are transferred to and from a country for economic production.

4. Current Transfers

Current transfers are unilateral transfers with nothing received in return. These include workers' remittances, donations, aids and grants, official assistance and pensions. Due to their nature, current transfers are not considered real resources that affect economic production.

Now that we have covered the four basic components, we need to look at the mathematical equation that allows us to determine whether the current account is in deficit or surplus (whether it has more credit or debit). This will help us understand where any discrepancies may stem from, and how resources may be restructured in order to allow for a better functioning economy.

The following variables go into the calculation of the current account balance (CAB):

X = Exports of goods and services

M = Imports of goods and services

NY = Net income abroad

NCT = Net current transfers

The formula is:

$$CAB = X - M + NY + NCT$$

1. Balance of trade may be defined as difference between export and import of goods and services.
2. Balance of trade represents the difference between visible exports and imports of a country.
3. It is always the desire of a company to have a favorable balance of trade.
4. If export is more than import, at that time, BOT will be f
export, at that time, BOT

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5. If you see RBI overall balance of payment report, it shows debit and credit of current account. Credit means total export of different goods and services and debit means total import of goods and services in current account.

Theoretically, the balance should be zero, but in the real world this is improbable, so if the current account has a surplus or a deficit, this tells us something about the government and state of the economy in question, both on its own and in comparison to other world markets.

A surplus is indicative of an economy that is a net creditor to the rest of the world. It shows how much a country is saving as opposed to investing. What this means is that the country is providing an abundance of resources to other economies, and is owed money in return. By providing these resources abroad, a country with a CAB surplus gives other economies the chance to increase their productivity while running a deficit. This is referred to as financing a deficit.

A deficit reflects government and an economy that is a net debtor to the rest of the world. It is investing more than it is saving and is using resources from other economies to meet its domestic consumption and investment requirements. For example, let us say an economy decides that it needs to invest for the future (to receive investment income in the long run), so instead of saving, it sends the money abroad into an investment project. This would be marked as a debit in the financial account of the balance of payments at that period, but when future returns are made, they would be entered as investment income (a credit) in the current account under the income section.

A current account deficit is usually accompanied by depletion in foreign-exchange assets because those reserves would be used for investment abroad. The deficit could also signify increased foreign investment in the local market, in which case the local economy is liable to pay the foreign economy investment income in the future.

It is important to understand from where a deficit or a surplus is stemming because sometimes looking at the current account as a whole could be misleading.

1.16 ANALYZING THE CURRENT ACCOUNT

Exports imply demand for a local product while imports point to a need for supplies to meet local production requirements. An export is a credit to a local economy while an import is a debit; an import means that the local economy is liable to pay a foreign economy. Therefore a deficit between exports and imports (goods and services combined) - otherwise known as a balance of trade (BOT) deficit (more imports than exports) - could mean that the country is importing more to increase its productivity and to eventually churn out more exports. This, in turn, could ultimately finance and alleviate the deficit.

A deficit could also stem from a rise in investments from abroad and increased obligations by the local economy to pay investment income (a debit under income in the current account). Investments from abroad usually have a positive effect on the local economy because, if used wisely, they provide for increased market value and production for that economy in the future. This can allow the local economy eventually to increase exports and again, reverse its deficit.

So, a deficit is not necessarily a bad thing for an economy, especially for an economy in the developing stages or under reform: an economy sometimes has to spend money to make money, so it runs a deficit intentionally. However, an economy must be prepared to finance this deficit through a combination of means that will help reduce external liabilities and increase credits from abroad. For example, a current account deficit that is financed by short-term portfolio investment or borrowing is likely riskier. This is because a sudden failure in an emerging capital market or an unexpected suspension of foreign government assistance, perhaps due to political tensions, will result in an immediate cessation of credit in the current account.

Notes

The Bottom Line

The volume of a country's current account is a good sign of economic activity. By scrutinizing the four components of it, we can get a clear picture of the extent of activity of a country's industries, capital market, services and the money entering the country from other governments or through remittances. However, depending on the nation's stage of economic growth, its goals, and of course the implementation of its economic program, the state of the current account is relative to the characteristics of the country in question. But when analyzing a current account deficit or surplus, it is vital to know what is fueling the extra credit or debit and what is being done to counter the effects (a surplus financed by a donation may not be the most prudent way to run an economy). On a separate note, the current account also highlights what is traded with other countries, and it is a good reflection of each nation's comparative advantage in the global economy.

1.17 EQUILIBRIUM OF BALANCE OF PAYMENTS

Equilibrium is that state of balance of payment over the relevant time period which makes it possible to sustain an open economy without severe unemployment on a continuing basis.

In BOP equilibrium, we have to make certain assumptions for the simplicity of our analysis. These assumptions are:

(a) A given supply curve,

(b) No change in price expectations,

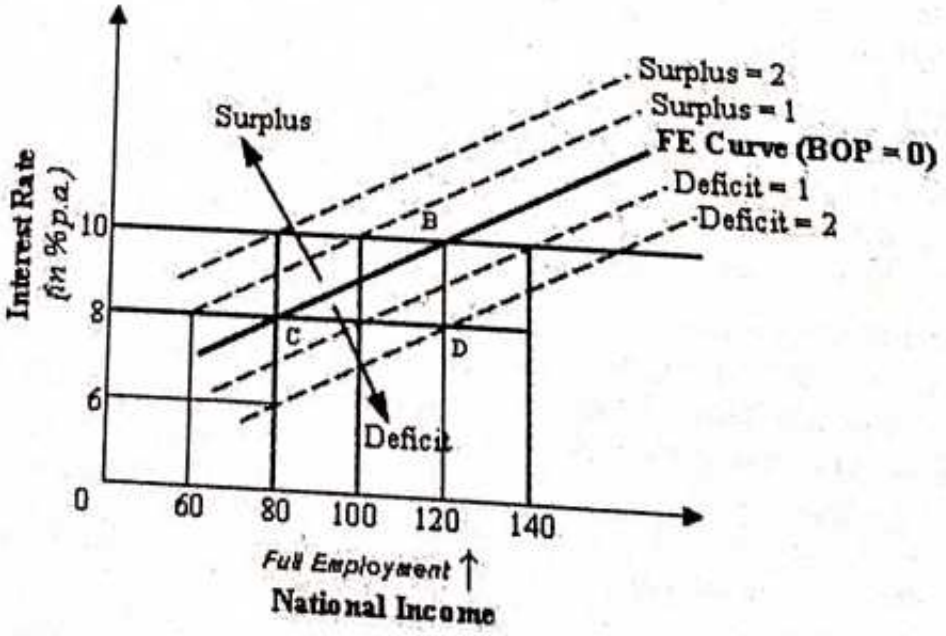
(c) Internal capital flows depend on the level of the interest rate at home and abroad,

(d) No accumulation of real capital.

It is evident that the balance of payments depends on both the level of domestic economic activity and the level of domestic interest rate.

FE curve is the set of all transactions of income and interest rate levels for which the overall payments balance is in equilibrium, i.e. neither in surplus nor in deficit.

In the below figure, FE curve showing equilibrium in BOP. All the points above FE curve show surpluses in BOP and all the points below FE show deficits. B is the target point of policy at which the nation has achieved both internal balance (full employment without excessive inflation) and external balance.



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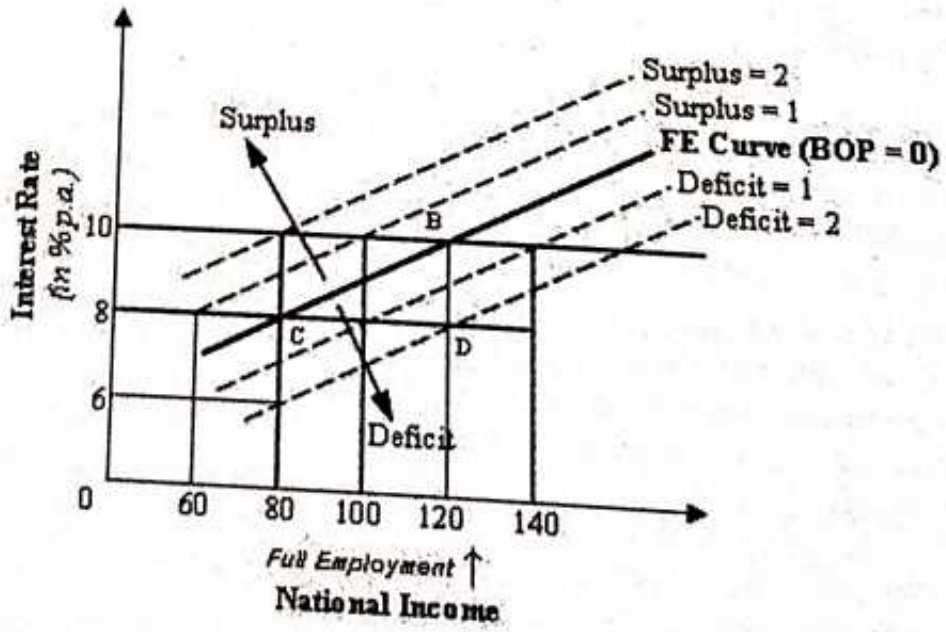

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1.18 TYPES OF BOP EQUILIBRIUM

There are two types of BOP equilibrium, i.e., static equilibrium and dynamic equilibrium:

(a) ***Static Equilibrium:*** The distinction between static and dynamic equilibrium depends upon the time period. In static equilibrium, exports equal imports including exports and imports of services as well as goods and the other items on the BOPs – short term capital, long term capital and monetary gold are on balance zero. Not only should the BOPs be in equilibrium, but also national money incomes should be in equilibrium vis-à-vis money incomes abroad. The foreign exchange rate must also be in equilibrium.

(b) ***Dynamic Equilibrium:*** The condition of dynamic equilibrium for short periods of time is that exports and imports differ by the amount of short-term capital movements and gold (net) and there are no large destabilising short-term capital movements.

The condition for dynamic equilibrium in the long run is that exports and imports differ by the amount of long term autonomous capital movements made in a normal direction, i.e. from the low-interest rate country to those with high rates. When the BOP of a country is in equilibrium, the demand for domestic currency is equal to its supply. The demand and supply situation is thus neither favourable nor unfavourable. If the BOP moves against a country, adjustments must be made by encouraging exports of goods, services or other forms of exports or by discouraging imports of all kinds. No country can have a permanently unfavourable BOP, though it is possible – and is quite common for some countries – to have a permanently unfavourable balance of trade. Total liabilities and total assets of nations, as of individuals, must balance in the long-run.

1.19 DISEQUILIBRIUM IN THE BALANCE OF PAYMENTS

Disequilibrium of Deficit arises when our receipts from the foreigners fall below our payment to foreigners. It arises when the effective demand for foreign exchange of the country exceeds its supply at a given rate of exchange. This is called an 'unfavourable balance'.

Disequilibrium of Surplus arises when the receipts of the country exceed its payments. Such a situation arises when the effective demand for foreign exchange is less than its supply. Such a surplus disequilibrium is termed as 'favourable balance'.

1.20 TYPES OF BOP DISEQUILIBRIUM

There are three main types of BOP Disequilibrium which are as follows:

(a) Cyclical disequilibrium,

(b) Secular disequilibrium, and

(c) Structural Disequilibrium.

(a) Cyclical Disequilibrium

Cyclical disequilibrium occurs because of two reasons. First, two countries may be passing through different paths of business cycle. Second, the countries may be following the same path but the income elasticity's of demand or price elasticity's of demand are different. If prices rise in prosperity and decline in depression, a country with a price elasticity for imports greater than unity will experience a tendency for decline in the value of imports in prosperity; while those for which import price elasticity is less than one will experience a tendency for increase. These tendencies may be overshadowed by the

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effects of income changes, of course. Conversely, as prices decline in depression, the elastic demand will bring about an increase in imports, the inelastic demand a decrease.

(b) Secular Disequilibrium

The secular or long-run disequilibrium in BOP occur because of long-run and deep seated changes in an economy as it advances from one stage of growth to another. The current account follows a varying pattern from one state to another. In the initial stages of development, domestic investment exceeds domestic savings and imports exceed exports. Disequilibrium arises owing to lack of sufficient funds available to finance the import surplus, or the import surplus is not covered by available capital from abroad. Then comes a stage when domestic savings tend to exceed domestic investment and exports outrun imports. Disequilibrium may result, because the long-term capital outflow falls short of the surplus savings or because surplus savings exceed the amount of investment opportunities abroad. At a still later stage, domestic savings tend to equal domestic investment and long term capital movements are on balance, zero.

(c) Structural Disequilibrium

Structural disequilibrium can be further bifurcated into:

(i) ***Structural Disequilibrium at Goods Level:*** Structural disequilibrium at goods level occurs when a change in demand or supply of exports or imports alters a previously existing equilibrium, or when a change occurs in the basic circumstances under which income is earned or spent abroad, in both cases without the requisite parallel changes elsewhere in the economy. Suppose the demand for India handicrafts falls off. The resources engaged in the production of these handicrafts must shift to some other line or the country must restrict imports, otherwise the country will experience a structural disequilibrium. A deficit arising from a structural change can be filled by increased production or decreased expenditure, which in turn affect international transactions in increased exports or decreased imports. Actually it is not so easy, because the resources are relatively immobile and expenditure not readily compressible. Disinflation or depreciation may be called for to correct a serious disequilibrium.

(ii) ***Structural Disequilibrium at Factors Level:*** Structural disequilibrium at the factor level results from factor prices which fall to reflect accurately factor endowments, i.e., when factor prices are out of line with factor endowments, distort the structure of production from the allocation of resources which appropriate factor prices would have indicated. If, for instance, the price of labour is too high, it will be used more sparingly and the country will import goods with a higher labour content. This will lead to unemployment, upsetting the balance in the economy.

1.21 CAUSES OF DISEQUILIBRIUM IN BOP

Following are the main causes of disequilibrium in BOP:

(a) Revenue oriented tariffs

The import and export tariffs of India are by and large revenue oriented. The balance of payment reasons are no doubt taken into account in the determination of import and export duties. However, there are numerous anomalies in these tariffs. There are cases where the raw materials for a finished article are taxed at such a high rate that it is cheaper to import the finished articles rather than import the raw materials and produce the finished articles locally. In cases like this, there can be no possibility for producing such articles for export. The import and export tariffs need a thorough revision from the point of view of minimising the tax element in the cost of production. The approach should be to tax consumption but not production.

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(b) Adverse terms of trade

The terms of trade has a tendency to move against us. This is because of this fact that prices of our exports decreasing the world market while the prices of our imports are constantly rising. The prices of our exports fall because we export raw materials and semi-manufactured goods which cannot be stored for a long time. Our cotton and leather are facing the competition of artificial and synthetic fibre from China, Malaysia, Korea, etc. On the other hand, the prices of our import commodities are rising because they are finished and final products and can be disposed in the market very quickly. In such state of affairs, our international receipts go on falling while our payments go on increasing. Accordingly, the deficit is sure to occur.

(c) Import substitution policy of India

The emphasis of India's industrial policy has been more on import substitution than on export promotion. The position of domestic industries results in higher prices for the consumer. But what is worse is that industries having a sheltered domestic market tend to become inefficient, because, in the absence of foreign competition, there is no incentive to reduce their production costs. The export industries, on the other hand, have to be very efficient in order to be able to compete in the world market, for they don't have the luxury of a sheltered market at home, in which they can thrive at the cost of the consumer. Besides, some of the export industries are much more labour intensive than the import substitution industries.

(d) Export of primary commodities

The main factor for the disturbing export performances is the adverse trend in the terms of trade. But the vulnerability to the TOT shock is the result of heavy dependence of the country's export earnings on primary commodities like cotton, rice, and semi-manufactured goods, which are subject to frequent price fluctuations in the world market. To import stability to the country's export trade, it has been suggested times and again that the export of manufactured goods, for example, textiles, automobiles, heavy engineering goods, etc., should be increased.

(e) Capital account problem

The deficit in Current Account of BOP may be washed out by a surplus in capital account. But this is not the case with India. We have to face the following problems relating to capital account:

(i) The foreign official loans are specific and tied in nature and are attached with political interference and heavy rates of interest.

(ii) A lot of amount is spent on repayment of loans and debt servicing.

(iii) The private investors are still hesitant in making investment in our country because of several reasons, like political instability, lack of proper infra-structure, lack of energy generation plants, involvement of official procedures, and the element of stubbornness in the country.

(f) Trade restrictions of developed countries

The trade barriers raised by developed countries against the import of manufactures especially on agricultural products by the developing countries is one of the important factors preventing greater production and export by some industries in India, particularly the cotton textile industry. The dismantling of these barriers through negotiations can go a long way in increasing India's exports of manufactured goods.

(g) Inflation

Inflationary conditions are a serious obstacle to the promotion of exports. Inflation results in a rise in the domestic cost of production so that the goods produced cannot compete in the world market, if the

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rate of exchange is not suitably adjusted. So the control of inflation is essential for keeping India goods competitive and for promoting exports. It has not been possible to control inflation in India even in recent years.

(h) Ever-increasing demand for imports

Our socio-economic set-up is import and ultra import biased. People have craze to purchase imported goods. Accordingly, the demand for imported vehicles, consumer durables, electronics, etc. is increasing day by day. Moreover, the increased population, urbanisation and demonstration effect has necessitated the increase in demand for imported goods.

(i) Political instability

The development of the economy depends on the political circumstances of that country. India has been chronically suffered from different political shocks since her independence. Our exports and BOP are the clear reflection of these political instabilities. For example, during 1988-89, exports were affected by the political uncertainty and disturbances during the greater part of the year. The events starting from the dissolution of National Assembly on 29th May 1988 made a deep imprint on the psychology of business communities.

1.22 MEASURES TO CORRECT BOP DISEQUILIBRIUM

To correct the different types of disequilibrium in BOP the following general measures are used:

(a) Exchange depreciation (price effect) or devaluation (by government),

(b) Deflate the currency,

(c) Tariffs,

(d) Import quotas, and

(e) Export duties.

(a) Exchange Depreciation

Exchange depreciation means a reduction in the value of a currency in terms of gold or other currencies under 'free market' conditions and coming about through a decline in the demand for that currency in relation to the supply. This is usually applied to 'floating exchange rates'. The purpose of this method is to depreciate the external exchange value of the home currency, thus cheapening the domestic goods for the foreigner. Whereas, under 'fixed-parity system' or 'fixed exchange rate', the reduction of currency value in against the gold or other currencies is official and not market based. This official reduction of exchange rate is called 'devaluation'. The purpose of both 'depreciation' and 'devaluation' is to cheapen the domestic goods and boost up the exports. But the governments regarded devaluation as a means of correcting a balance of payments deficit only as a measure of last resort. They predominantly relied on deflation of the home market and international borrowing. Devaluation or depreciation of the exchange rate can correct a balance of payment deficit because it lowers the price of exports in terms of foreign currencies and raises the price of imports on the home market. This does not necessarily succeed in its purpose. The immediate effect is similar to an unfavourable change in the TOT. For the resources devoted to the production of exports, less foreign exchange is earned with which to pay for imports. If the level of imports remained the same, more output would have to be diverted to exports and away from home consumption and investment simply to maintain the status quo. Devaluation or depreciation could lead to a loss of real income without any benefit
payments.

(b) Deflate the Currency

According to this method, the currency is deflated. As the currency contracts, prices will fall, which will stimulate exports and check imports. But the method of deflation is also full of dangers. If prices are forced down while costs, which are proverbially rigid (especially as regards wages in countries where trade unions are well organised), do not follow suit, the country may face a serious depression and unemployment. Correcting the balance of payments, therefore, once disequilibrium has arisen is not an easy matter.

(c) Tariffs

Tariff is a tax levied on imports. It is synonymous with import duties or custom duties. Tariffs are used for two different purposes; for revenue and for protection. 'Revenue Tariffs' are a source of government revenue and 'Protective Tariffs' are meant to maintain and encourage those branches of home industry protected by the duties.

(d) Import Quotas

As a protective device, import quotas are alternative to tariffs. Under an import quota, fixed amount of a commodity in volume or value is allowed to be imported into the country during a specified period of time.

1.23 AUTONOMOUS AND ACCOMMODATING CAPITAL FLOWS

Economists distinguish between autonomous and accommodating items used in BOP. The basic difference between the two is that whereas deficit or surplus in BOP occurs due to autonomous items, the accommodating items are taken to cover deficit (or surplus) in autonomous transactions.

(a) Autonomous Items in BOP

These refer to international economic transactions that take place due to some economic motives like earning income and profit maximisation. They have nothing to do with foreign exchange payments. Since such transactions are independent of the state of country's balance of payment, i.e., irrespective of whether BOP is favourable or unfavourable, they are, therefore, called autonomous items.

These items are generally called 'above the line items' in BOP Again, it is autonomous transactions which make deficit or surplus in BOP. BOP is in deficit if the autonomous receipts are less than autonomous payments. BOP is in surplus if the autonomous receipts are greater than autonomous pa3anents. In other words, deficit or surplus in BOP depends upon the balance of autonomous items.

Deficit in BOP account: When during the year total inflows of foreign exchange on account of autonomous transactions are less than total outflows on account of such transactions, there is deficit in BOP.

(b) Accommodating Items in BOP

These refer to transactions that take place to cover deficit (or surplus) arising from autonomous transactions. These items are also called 'below the line items'. Because of government financing, official settlements are seen as accommodating items to keep the BOP identity.

To meet deficit, govt. may borrow from abroad or make withdrawals from foreign exchange reserves. The official settlement approach is based on the assumption that monetary authority is the ultimate financier of any deficit in BOP or the ultimate recipient of any surplus.

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1.24 SUMMARY

Monetary management means the management of the money supply and monetary and credit-market conditions by the monetary authority the central bank in the pursuit of certain general social objectives. An international monetary management is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross border investment and generally the reallocation of capital between nation states.

Foreign exchange refers to the exchange of one currency for another or the conversion of one currency into another currency. It is the process by which people in different countries pay each other by exchanging different types of money.

The foreign exchange market is a global decentralized or over-the-counter (OTC) market for the trading of currencies. This market determines the foreign exchange rate. It includes all aspects of buying, selling and exchanging currencies at current or determined prices. In terms of trading volume, it is by far the largest market in the world, followed by the Credit market.

The main participants in this market are the larger international banks. Financial centers around the world function as anchors of trading between a wide range of multiple types of buyers and sellers around the clock, with the exception of weekends. Since currencies are always traded in pairs, the foreign exchange market does not set a currency's absolute value but rather determines its relative value by setting the market price of one currency if paid for with another.

The foreign exchange market is the market in which participants are able to buy, sell, exchange and speculate on currencies. Foreign exchange markets are made up of banks, commercial companies, central banks, investment management firms, hedge funds, and retail forex brokers and investors.

Foreign Exchange Market is the market where the buyers and sellers are involved in the buying and selling of foreign currencies. Simply, the market in which the currencies of different countries are bought and sold is called as a foreign exchange market. The foreign exchange market is commonly known as FOREX, a worldwide network that enables the exchanges around the globe

The foreign exchange market involves firms, households, and investors who demand and supply currencies coming together through their banks and the key foreign exchange dealers. The demand (or outflow) of foreign exchange comes from those people who need it to make payment in foreign currency.

Exchange is also called an organized market where the security or commodity is traded on an exchange using and changing the current market price.

Over the counter (OTC) the trades are based on contracts which are done openly between two parties, and not subject to the guidelines of an exchange. The contract terms are approved between the parties and might be non-standard.

Supply curve of foreign exchange slope upwards due to positive relationship between supply for foreign exchange and foreign exchange rate.

The concept of equilibrium rate of exchange corresponds to that of equilibrium price of a commodity or a factor of production. The concept applies only when market forces are allowed to operate freely, and rate of exchange can respond to the interaction of demand and supply functions of a currency in international markets.

Balance of Payments (BOP) accounts are an accounting record of all monetary transactions between a country and the rest of the world. It is the difference over a given time between total payments to foreign nations, arising from imports of goods and services and transfers abroad of capital, interest, grants, etc., and total receipts from foreign nations, arising from exports of goods and services and transfers from abroad of capital, interest, grants, etc.

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Balance of trade is the difference in value between the total exports and total imports of a nation during a specific period of time. The balance of trade forms part of the current account, which includes other transactions such as income from the net international investment position as well as international aid. If the current account is in surplus, the country's net international asset position increases correspondingly. A deficit decreases the net international asset position.

The trade balance is identical to the difference between a country's output and its domestic demand the difference between what goods a country produces and how many goods it buys from abroad; this does not include money re-spent on foreign stock, nor does it factor in the concept of importing goods to produce for the domestic market.

Balance of trade is the difference between a country's imports and its exports. Balance of trade is the largest component of a country's balance of payments. Debit items include imports, foreign aid, domestic spending abroad and domestic investments abroad. Credit items include exports, foreign spending in the domestic economy and foreign investments in the domestic economy.

Exports imply demand for a local product while imports point to a need for supplies to meet local production requirements. An export is a credit to a local economy while an import is a debit; an import means that the local economy is liable to pay a foreign economy.

Disequilibrium of Deficit arises when our receipts from the foreigners fall below our payment to foreigners. It arises when the effective demand for foreign exchange of the country exceeds its supply at a given rate of exchange. This is called an 'unfavourable balance'.

Disequilibrium of Surplus arises when the receipts of the country exceed its payments. Such a situation arises when the effective demand for foreign exchange is less than its supply. Such a surplus disequilibrium is termed as 'favourable balance'.

Economists distinguish between autonomous and accommodating items used in BOP. The basic difference between the two is that whereas deficit or surplus in BOP occurs due to autonomous items, the accommodating items are taken to cover deficit (or surplus) in autonomous transactions.

Tariff is a tax levied on imports. It is synonymous with import duties or custom duties. Tariffs are used for two different purposes; for revenue and for protection. 'Revenue Tariffs' are a source of government revenue and 'Protective Tariffs' are meant to maintain and encourage those branches of home industry protected by the duties.

These refer to transactions that take place to cover deficit (or surplus) arising from autonomous transactions. These items are also called 'below the line items'. Because of government financing, official settlements are seen as accommodating items to keep the BOP identity.

To meet deficit, govt. may borrow from abroad or make withdrawals from foreign exchange reserves. The official settlement approach is based on the assumption that monetary authority is the ultimate financier of any deficit in BOP or the ultimate recipient of any surplus.

1.25 SELF-ASSESSMENT QUESTIONS

1. What is foreign exchange? Discuss about the market for foreign exchange.
2. What is demand for foreign exchange? Explain about demand for foreign exchange.
3. What is supply of foreign exchange? Discuss supply of foreign exchange equilibrium rate of exchange.
4. Give the meaning of balance of payment. Explain in details about the balance of payments.

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5. What is balance of trade? Discuss about the balance of trade.
6. Give the meaning of current account. Explain the balance of current accounts.
7. What is equilibrium in the balance of payment? Discuss about equilibrium and disequilibrium in the balance of payments.
8. What is disequilibrium in the balance of payment? Discuss reasons for disequilibrium in the balance of payments.
9. What is accommodating capital flow? Explain about autonomous and accommodating capital flows.

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Chapter

2

MONETARY SYSTEMS AND INTERNATIONAL ADJUSTMENT

Objectives

The objectives of this lesson are to:

- Monetary Systems and International Adjustment
- Adjustment under Flexible Rate
- Direct Controls
- Devaluation Fixed vs. Flexible Exchange Rate

Structure:

2.1 Introduction

2.2 Meaning of Monetary System

2.3 Definition of Monetary System

2.4 Importance of Monetary System

2.5 Types of Monetary System

2.6 Functions of Monetary System

2.7 Theories of Monetary System

2.8 International Adjustment

2.9 Foreign Exchange Rate

2.10 Adjustment under Flexible Rate

2.11 Direct Controls

2.12 Devaluation of Foreign Exchange

2.13 Devaluation Fixed vs. Flexible Exchange Rate

2.14 Summary

2.15 Self-Assessment Questions

Notes

2.1 INTRODUCTION

Monetary System is the set of mechanisms by which a government provides money (cash) in a country's economy. It usually consists of a mint, central bank, and commercial banks. This is made up of precious metals or other commodities that have intrinsic value. The monetary system uses the commodity physically in terms of currency. This form of money retains its value even if it's melted down. For example, gold and silver coins have been commonly used throughout history as a form of money. This draws its value from a commodity but doesn't involve handling the commodity on a regular basis. The notes don't have physical value but can be exchanged for the commodity it is backed by. For example, the US Dollar used to draw its value on gold. This was known as the Gold Standard. In this system the currency, which by government decree is legal tender, i.e. that the government guarantees the value of the currency. Today, most monetary systems are fiat money because people use notes or bank balances to make purchases. Fiat money is made up of paper currency or base metal coin. However, today, most of fiat money is in the form of bank balances and records of credit or debit card purchases.

In India, the central monetary authority is the Reserve Bank of India (RBI). It is so designed as to maintain the price stability in the economy. Other objectives of the monetary policy of India, as stated by RBI, are:

Price Stability

Price Stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favourable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

Controlled Expansion of Bank Credit

One of the important functions of RBI is the controlled expansion of bank credit and money supply with special attention to seasonal requirement for credit without affecting the output.

Promotion of Fixed Investment

The aim here is to increase the productivity of investment by restraining non-essential fixed investment.

Restriction of Inventories and Stocks

Overfilling of stocks and products becoming outdated due to excess of stock often results in sickness of the unit. To avoid this problem the central monetary authority carries out this essential function of restricting the inventories. The main objective of this policy is to avoid over-stocking and idle money in the organization.

To Promote Efficiency

It is another essential aspect where the central banks pay a lot of attention. It tries to increase the efficiency in the financial system and tries to incorporate structural changes such as deregulating interest rates, ease operational constraints in the credit delivery system, to introduce new money market instruments etc.

Reducing the Rigidity

RBI tries to bring about the flexibilities in the operations which provide a considerable autonomy. It encourages more competitive environment and diversification. It maintains its control over financial system whenever and wherever necessary to maintain the discipline and prudence in operations of the financial system.

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2.2 MEANING OF MONETARY SYSTEM

Monetary System is defined as a set of policies, frameworks, and institutions by which the government creates money in an economy. Such institutions include the mint, the central bank, treasury and other financial institutions. There are three common types of monetary systems – commodity money, commodity-based money and fiat money.

2.3 DEFINITION OF MONETARY SYSTEM

According to ***Business Dictionary,*** "Monetary system is the set of institutions by which a government provides money in a country's economy. Modern monetary systems usually consist of mints, central banks and commercial banks".

2.4 IMPORTANCE OF MONETARY SYSTEM

1. Monetary system is another important instrument with which objectives of macroeconomic policy can be achieved. It is worth noting that it is the Central Bank of a country which formulates and implements the monetary policy in a country. In some countries such as India the Central Bank (the Reserve Bank is the Central Bank of India) works on behalf of the Government and acts according to its directions and broad guidelines.
2. Monetary system is concerned with changing the supply of money stock and rate of interest for the purpose of stabilizing the economy at full-employment or potential output level by influencing the level of aggregate demand.
3. More specifically, at times of recession monetary policy involves the adoption of some monetary tools which tend the increase the money supply and lower interest rates so as to stimulate aggregate demand in the economy, on the other hand, at times of inflation, monetary policy seeks to contract the aggregate spending by tightening the money supply or raising the rate of interest.
4. It may be noted that in a developing country such as India, in addition to achieving equilibrium at full employment or potential output level, monetary policy has also to promote and encourage economic growth both in the industrial and agricultural sectors of the economy.
5. The central bank undertakes open market operations and buys securities in the open market. Buying of securities by the central bank, from the public, chiefly from commercial banks will lead to the increase in reserves of the banks or amount of currency with the general public. With greater reserves, commercial banks can issue more credit to the investors and businessmen for undertaking more investment. More private investment will cause aggregate demand curve to shift upward. Thus buying of securities will have an expansionary effect.
6. The Central Bank may lower the bank rate or what is also called discount rate, which is the rate of interest charged by the central bank of a country on its loans to commercial banks. At a lower bank rate, the commercial banks will be induced to borrow more from the central bank and will be able to issue more credit at the lower rate of interest to businessmen and investors. This will not only make credit cheaper but also increase the availability of credit or money supply in the economy. The expansion in credit or money supply will increase the investment demand which will tend to raise aggregate output and income.
7. The central bank may reduce the Cash Reserve Ratio (CRR) to be kept by the commercial banks. In countries like India, this is a more effective and direct way of expanding credit and

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increasing money supply in the economy by the central bank. With lower reserve requirements, a large amount of funds is released for providing loans to businessmen and in-vestors. As a result, credit expands and investment increases in the economy which has an expansionary effect on output and employment.

2.5 TYPES OF MONETARY SYSTEM

Various types of Monetary Systems are:

1. Commodity Money

This is made up of precious metals or other commodities that have intrinsic value. In order words, the monetary system uses the commodity physically in terms of currency. This form of money retains its value even if its melted down. For example, gold and silver coins have been commonly used throughout history as a form of money.

2. Commodity-based Money

This draws its value from a commodity but doesn't involve handling the commodity on a regular basis. The notes don't have physical value but can be exchanged for the commodity it is backed by. For example, the US Dollar used to draw its value on gold. This was known as the Gold Standard.

3. Fiat Money

In this system the currency, which by government decree is legal tender, i.e. that the government guarantees the value of the currency. Today, most monetary systems are fiat money because people use notes or bank balances to make purchases. Fiat money is made up of paper currency or base metal coin. However, today, most of fiat money is in the form of bank balances and records of credit or debit card purchases.

2.6 FUNCTIONS OF MONETARY SYSTEM

Some of the important functions are as follows:

i) ***Monetary system is a contributor of liquidity:*** The term liquidity refers to cash or money and other assets which can be converted into cash within a short duration. Almost all the activities of a monetary system are liquidity oriented i.e. there is either provision of liquidity or one can see trading in liquidity.

ii) ***It plays the role of a medium:*** The monetary system plays the role of a catalyst by creation of credit and providing finance and credit facilities to different investment opportunities.

iii) ***It accelerates the rate of economic development:*** Monetary system mobilizes the savings and also the investment. By doing so capital formation is achieved which in turn leads to allocating resources to productive activities, which at last leads to the economic development.

iv) ***It fosters industrial development:*** It is because of Indian monetary system, institutions like IDBI, IFCI, KSFC, ICICI etc. have been developed to foster industrial development. These institutions help industries by providing monetary, technical, marketing assistance.

v) ***It is a guide for investor's education:*** The monetary system play a very important role of providing all necessary investment opportunities to the investors. The monetary institutions, banks etc. from time to time publish the necessary investors guide with required details about investments to enlighten the investors.

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vi) ***It promotes self-employment:*** The development banks and monetary institutions are primarily established with the objective of promoting self-employment. By providing a means of self-employment to young educated men and women, it indirectly solves the problem of unemployment.

vii) ***It helps in the revival of sick units:*** The monetary institutions in our country have specially designed loans schemes to assist the revival of sick units. These loans are provided to sick units at reasonable rate of interest.

viii) ***It ensures effective distribution of resources:*** An effective monetary system always enables proper allocation of resources to different investment avenues.

2.7 THEORIES OF MONETARY SYSTEM

Monetary Theory is a set of ideas about how monetary policy should be conducted within an economy. Monetary theory suggests that different monetary policies can benefit nations depending on their unique set of resources and limitations. It is based on core ideas about how factors like the size of the money supply, price levels and benchmark interest rates affect the economy. Economists and central banking authorities are typically those most involved with creating and executing monetary policy.

1. Ricardo's Monetary Theory

Ricardo has also contributed to the understanding of monetary economies. He was concerned with the monetary problems of his time. His ea on currency can be appreciated from his two writings: (i) Proposal for Economical and Secure Currency and (ii) High Price of Bullion. Gustav Cassel drew inspiration for his purchasing power parity from the writings Ricardo.

Ricardo in his book, High Price of Bullion, explained clearly the theory of exchange rate under two conditions. The first condition was with respect to the gold bullion standard and the second was regarding inconvertible paper currency standard. Ricardo said that in the case of gold standard, the exchange rate can be determined by the Mint Par, i.e., the gold content of domestic and foreign currency, subject to some upper and lower species points. In the case of inconvertible paper currency, exchange rate can be determined by the purchasing power of the two currencies. He pointed out in this connection that "while the circulating medium consists, therefore, of coins undebased or of paper money immediately exchanged for undebased coins, the exchange can never be more above or below the par than the expenses attaining the transportation of precious metals. But when it consists of depreciated paper money, it necessarily will fall according to the degree of depreciation."

Ricardo also had the understanding about the value theory of money. According to him, the value or purchasing power of money depends on velocity, confidence and quantity of money supply and credit policy of the bank. Although Ricardo did not explain the pure quantity theory of money, still he had the understanding of the relation between money supply and price level. Ricardo was writing at a time when the price level went up so much in England. Ricardo anticipated Wicksell in finding out certain suitable remedies for controlling the fluctuations in the price level. Ricardo, like Wicksell, conceived of the effect of the divergence between money rate of interest and natural rate of interest. He observed that such a divergence leads to fluctuating price level.

However, Ricardo could not explain how the divergence between the natural rate of interest and the money rate of interest could be the cause of economic fluctuations. But, nonetheless, Ricardo could suggest some very practical measures. Ricardo's High Price of Bullion was concerned with the contemporary inflationary problem of England. During the Napoleonic Wars, there was a hot controversy known as the Bullionist Controversy. Ricardo contributed notably to the understanding of this Notes controversy and to its solution. During the period of Napoleonic Wars, the U.K.'s price level went up very high.

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The paper currency was also not convertible into good at a fixed price on demand. The gold reserve of the Bank of England fell down considerably and the Bank notes depreciated in value. Ricardo blamed the Bank of England for over-issuing currency notes, which was the cause of hyper-inflation. He observed that the price level in England went up because of an increase in the quantity of money in circulation. Ricardo advised that the remedy proposed for all the evils in the currency is that banks should gradually decrease the amount of their notes in circulation until they shall have rendered the remainder of equal value with coins which they represent. In other words, this should be done till the prices of silver and gold bullion are brought to their Mint Par point. In this way, Ricardo contributed to the understanding of the genesis of inflation and to anti inflationary measures. He was of the opinion that it was the drastic depreciation the value of currency which was necessarily responsible for the outflow If gold from England.

In his book, Proposal of Economical and Secure Currency, Ricardo analyzed the factors which were responsible for the determination of value money. He observed that under competitive conditions of money supply, the value of money will depend on its cost of production. He was of the pinion that a proper control over money supply can maintain the value of money at a level which will neither cause inflation nor cause depression. He was in favour of a paper currency standard but he suggested for the proper regulation and control of the paper money. Ricardo was fully convinced of the superiority of bank notes (paper currency). But he suggested that the cir superiority of bank notes must be based on 100 per cent gold reserves. Ricardo prescribed state regulation over banking policy. Ricardo strongly recommended the introduction of paper currency because he thought that a system could lead to convenience. Stability and automaticity Ricardo's plan to nationalize the bank was a clear recognition of the necessity for a well-defined monetary policy by the central bank.

2. Wicksell's Monetary Theory

Wicksell was enamored with the theory of Léon Walras (the Lausanne school), Eugen von Böhm-Bawerk (the Austrian school) and David Ricardo and sought a synthesis of the three theoretical visions of the economy. Wicksell's work on creating a synthetic economic theory earned him a reputation as an "economist's economist." For instance, although the marginal productivity theory the idea that payments to factors of production equilibrate to their marginal productivity had been laid out by others such as John Bates Clark, Wicksell presented a far simpler and more robust demonstration of the principle and much of the present conception of that theory stems from Wicksell's model.

Extending from Ricardo's investigation of income distribution, Wicksell concluded that even a totally unfettered economy was not destined to equalize wealth as a number of Wicksell's predecessors had predicted. Instead, Wicksell posited, wealth created by growth would be distributed to those who had wealth in the first place. From this and from theories of marginalize, Wicksell defended a place for government intervention to improve national welfare. Wicksell influenced the field of constitutional political economy. His 1896 work on fiscal theory Finanztheoretische Untersuchungen called attention to the significance of the rules within choices are made by political agents and he recognized that efforts at reform must be directed toward changes in the rules for making decisions rather than trying to influence the behaviour of the actors.

Wicksell's most influential contribution was his theory of interest, published in his 1898 work, Interest and Prices. He made a key distinction between the natural rate of interest and the money rate of interest. The money rate of interest, to Wicksell, was merely the interest rate seen in the capital market; the natural rate of interest was the interest rate that was neutral to prices in the real market, or rather, the interest rate at which supply and demand in the real market was at equilibrium – as though there were no need for capital markets. This connected to the theory of the Austrian School, which theorized that an economic boom happened when the natural rate of interest was higher than the market rate.

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This contribution, called the "cumulative process," implied that if the natural rate of interest was not equal to the market rate, demand for investment and quantity of savings would not be equal. If the market rate is beneath the natural rate, an economic expansion occurs and prices, ceteris paribus, will rise. This gave an early theory of endogenous money – money created by the internal workings of the economy, rather than external factors and various theories of endogenous money have since developed.

This idea would be expanded upon by the Austrian school, which used it to form a theory of the business cycle based on central bank policy changes in the level of money in the economy would shift the market rate of exchange in some way relative to the natural rate and thus trigger a change in the relative proportion of the production of consumer goods to investment, which would ultimately result in an economic correction, or recession, in which the proportion of production of consumption goods to investment in the economy is pushed back towards the level that the natural rate of interest would result in. The cumulative process was the leading theory of the business cycle until John Maynard Keynes' The General Theory of Employment, Interest and Money. Wicksell's theory would be a strong influence in Keynes's ideas of growth and recession and also in Joseph Schumpeter's "creative destruction" theory of the business cycle.

Wicksell's main intellectual rival was the American economist Irving Fisher, who espoused a more succinct explanation of the quantity theory of money, resting it almost exclusively on long run prices. Wicksell's theory was considerably more complicated, beginning with interest rates in a system of changes in the real economy. Although both economists concluded from their theories that at the heart of the business cycle and economic crisis was government monetary policy, their disagreement would not be solved in their lifetimes and indeed, it was inherited by the policy debates between the Keynesians and monetarists beginning a half-century later.

Wicksell also expressed his views on many social issues and was often a critic of the status quo. He questioned the institutions of rank, marriage, the church, the monarchy and the military. While Wicksell fought for a more equal distribution of wealth and income, he saw himself primarily as an educator of the public. He desired to influence more than just the field of monetary economics.

3. Fisher's Monetary Theory

Fisher's theory of the price level was the following variant of the quantity theory of money. Let M = stock of money, P = price level, T = amount of transactions carried out using money and V = the velocity of circulation of money. Fisher then proposed that these variables are interrelated by the Equation of exchange:

$$MV = PT$$

Later economists replaced the amorphous T with real output Y or "Q", usually quantified by real GDP.

Fisher was also the first economist to distinguish clearly between real and nominal interest rates:

Where r is the real interest rate, i is the nominal interest rate and the inflation p is a measure of the increase in the price level. When inflation is sufficiently low, the real interest rate can be approximated as the nominal interest rate minus the expected inflation rate. The resulting equation is known as the Fisher equation in his honor.

For more than forty years, Fisher elaborated his vision of the damaging "dance of the dollar" and devised schemes to "stabilize" money, i.e. to stabilize the price level. He was one of the first to subject macroeconomic data, including the money stock, interest rates and the price level, to statistical analysis. In the 1920s, he introduced the technique later called distributed lags. In 1973, the Journal of Political Economy reprinted his 1926 paper on the statistical relation between unemployment and inflation, retiling it as "I discovered the Phillips curve". Index numbers played an important role in his monetary theory and his book The Making of Index Numbers has remained influential down to the present day. Here is

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a different way of approaching this monetary thing which focuses on interest rates and inflation. This requires a discussion of what money is and how it comes about in a natural economy. This is kind of complicated so be warned.

Money comes about in a natural economy to serve two purposes: to act as a medium of exchange and as a store of value. The first of these is well-recognized but the second is often overlooked and it is the second which is primary and makes the first possible. Since a barter economy requires the coincidence of wants for trade to take place it is much more efficient if there is some good which people can keep on hand for the purpose of trading. But this is only possible if there is a good which everyone expects to be able to trade freely for the things that they want in the future. In other words it is only possible if the medium of exchange is expected to hold its value.

At any point in time a typical person may own a house, a car, some quantity of food, furniture, clothes, stocks, bonds, cash etc. These things all represent wealth in a different form. Now to simplify the model consider a person who can hold wealth in one of two forms: chickens or gold. Each of these has two possible uses. Each can be consumed directly or traded for other consumption goods and each has different characteristics which affect their value in each use. A person of sufficient wealth would likely choose to consume some quantity of each directly along with some other goods. For our purposes we will focus on their value in exchange.

If one were to hold their wealth entirely in the form of chickens, they would be faced with some difficulties. For one thing, chickens eventually die. This has a couple of important implications. One is that if you hold them to long they will become worthless. Another is that if the person with whom you want to trade does not want to consume the chicken immediately but rather to hold it and potentially exchange it with someone else for another good later, you cannot divide it up.

On the other hand, gold takes up very little space for its value. It doesn't eat or poop, it just sits there. It can be infinitely divided with no loss of value. And finally, it doesn't degrade over time. All these characteristics make it more convenient to hold as a store of value. But this is only the case because it is possible to rely on it being valuable in the future and it is possible to rely on this because it has value in consumption to somebody somewhere. Because of this people will know that they can take it in exchange for whatever they have to sell and be able to trade it for whatever they want to buy in the future. What all of this adds up to is that people would rather hold some goods as a store of wealth than others. There is another difference between chickens and gold that must be accounted for. Unlike gold, chickens produce more chickens. This means that by foregoing the consumption of a chicken today (and attending to the costs mentioned above) you can potentially have more chickens in the future. Let's assume that the stock of chickens grows at 10% per year. So if you have 10 chickens now and you refrain from eating them for a year you will have 11. Meanwhile, if you hold 10 oz. of gold for one year you will still have 10 oz. In this case the real interest rate will be 10%. This represents the additional amount of real goods (chickens) you can get for giving up some consumption of real goods today. If all markets are in equilibrium it must be true that the benefit to holding each asset is the same. How can this be when chickens multiply and gold doesn't? To see the answer first assume there is no liquidity preference so chickens are just as easy to keep and exchange as gold. In this case the amount of goods that you can get in the future by holding gold must be the same as the amount of goods you can get by holding chickens. This means that prices in terms of gold must fall. Or to put it another way, the same amount of gold must get 10% more valuable. And this is a phenomenon which is not just left up to chance, competition will make this happen.

As an illustration of this process, assume for the sake of simplicity that you know the price of chickens in terms of gold 1 year from now will be 10. If the price of chickens now was 10 (and there were no liquidity preference) then nobody would want to hold gold. This would mean anyone who had gold would try to buy chickens because they have a higher rate of return. This would bid the price of

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chickens today up. People would keep bidding the price up until the fall in prices was just enough to make it worth it to hold the gold (about 11). In this way the market would equate the rate of return on all assets. Alright, now we must turn to a slightly more realistic world where some people raise chickens and finance this activity by borrowing money. Assume that 10% is the real return from this activity net of any expenses involved. The chicken farmers will borrow money and offer IOUs for some amount of money 1 period in the future. The price of this borrowing is the real interest rate and they will bid it up to 10%. That is to say that for lending 1 unit of gold you would receive an IOU for the amount of gold expected to purchase 1.1 chickens in the next period. Again, if there is no preference for one of these securities (gold vs. IOUs) then they will have to generate the same rate of return in equilibrium. This will mean that 1 unit of gold will buy an IOU for 1 unit of gold in the future. In other words the nominal rate of interest will be 0% and again, prices will have to fall by about 10% to equate the return on gold and IOUs with the return on chickens. Notice that the Fisher equation holds.

Nominal interest rate (0) = real interest rate (.10) + inflation rate (-.10)

The situation gets a little more complicated if you add liquidity preference back in. Liquidity preference in this case is any reason people may prefer holding gold over holding IOUs. This is likely to be the case because an IOU will not be as easy to trade to meet some need that may come up between now and 1 year from now (such as a broken button) as gold. Alternatively, there may be some risk of the IOU not being paid back. But even in the absence of this risk, there is still some benefit to holding gold due to its being more useful for satisfying any consumption desires which might come up in the meantime. This means that if gold and IOUs have the same rate of return, people would prefer to just hold gold. Because of this, competition will drive a wedge between the rate of return on IOUs and gold. Let's say that because of liquidity preference, people are only willing to trade 96 units of gold today for an IOU worth 1 unit a year from now. This return of about 4% will be the nominal interest rate or the price paid to have money (gold) now rather than money later. The real rate the price of having goods (chickens) now rather than goods later will remain unchanged since this has nothing to do with the rate at which chickens reproduce. So the change in prices required to bring the economy to equilibrium will now be smaller (only about 6%). The Fisher equation in this case will be:

Nominal rate (.04) = real rate (.10) + inflation rate (-.06)

In this natural economy, markets will efficiently allocate all resources across time. This is possible only because of the relative stability of the money supply (by stability I don't mean that it has to be constant just that it has to be exogenously determined). If the money supply is growing at a slower rate than the real interest rate, then there will be deflation. There would be nothing wrong with this. More importantly, the real rate would be determined by real factors (production possibilities and time preference) and the nominal rate and inflation rate would be determined by liquidity preference.

The system we now have is one where the Federal Reserve's sets the nominal rate (sort of) and lets the money supply expand or contract to bring the market into equilibrium. This alone wouldn't actually be that disruptive. If you imposed a lower nominal rate on the economy, it would not change the real rate, it would cause people to borrow and drive up prices today, causing inflation in the short run. But the system would be brought into equilibrium by the inflation rate falling (even more deflation). In other words, the dollars drawn into the economy would be sucked back out with interest in the next period and prices would be even lower than otherwise.

Again assume that in a natural economy, everyone knew the price of a chicken in 1 year would be 10 units of gold. Also assume, as above, that the nominal rate would be 4%, the real rate 10% and the inflation rate 6%. So people would bid the price of a chicken today up to about 9.4. Now imagine a central bank that can print and lend as much "gold" as they want. And imagine that they offer to lend it at an interest rate of 2%. At this rate people will want to borrow "gold" and use it to buy chickens. This will inflate the money supply and drive the price of chickens up today. But in a year all that money will

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have to be paid back to the central bank with interest which will make the money supply contract. The inflation and contraction of the money supply and resulting increase in price of chickens today and decrease in price of chickens tomorrow will be just enough to make the rate of deflation equal to 8% or in other words to fill the gap between the real interest rate and the (now artificial) nominal interest rate in the Fisher equation.

Nominal rate (.02)=real rate (.10) + inflation rate (-.08)

But even this is not what happens today. Today, the Fed has convinced us that they can keep nominal rates low and also keep inflation rates high. By doing this they are degrading one of the most important characteristics of money: it's ability to hold value. When people believe this, they will be willing to borrow much more and leverage most of their property since they will expect the value of it to be increasing. For instance, if the nominal interest rate were 1% and you expected 2% inflation (because that is what the Fed told you their target was), you would want to borrow as much money as you could and use it to buy real goods just to hold until next period. Then you could sell them at the new high prices, pay back your loans and have money left over. But obviously everyone cannot do this (it is not consistent with the Fisher equation). If everyone rushes out to get a loan and buy some real good, let's say housing. They will drive the prices of housing up today and when they all try to sell them in the future to pay their loans the price will plummet and they will all end up defaulting on their loans.

Monetary Policy Committee

The Reserve Bank of India Act, 1934 (RBI Act) was amended by the Finance Act, 2016, to provide for a statutory and institutionalized framework for a Monetary Policy Committee, for maintaining price stability, while keeping in mind the objective of growth. The Monetary Policy Committee is entrusted with the task of fixing the benchmark policy rate (repo rate) required to contain inflation within the specified target level. As per the provisions of the RBI Act, out of the six Members of Monetary Policy Committee, three Members will be from the RBI and the other three Members of MPC will be appointed by the Central Government.

The Government of India, in consultation with RBI, notified the 'Inflation Target' in the Gazette of India Extraordinary dated 5th August 2016 for the period beginning from the date of publication of this notification and ending on the March 31, 2021 as 4%. At the same time lower and upper tolerance levels were notified to be 2% and 6% respectively.

Monetary Operations

Monetary operations involve monetary techniques which operate on monetary magnitudes such as money supply, interest rates and availability of credit aimed to maintain Price Stability, Stable exchange rate, Healthy Balance of Payment, Financial stability, Economic growth. RBI, the apex institute of India which monitors and regulates the monetary policy of the country stabilizes the price by controlling Inflation. RBI takes into account the following monetary policies:

Open Market Operations

An open market operation is an instrument of monetary policy which involves buying or selling of government securities from or to the public and banks. This mechanism influences the reserve position of the banks, yield on government securities and cost of bank credit. The RBI sells government securities to control the flow of credit and buys government securities to increase credit flow. Open market operation makes bank rate policy effective and maintains stability in government securities market.

Cash Reserve Ratio

Cash Reserve Ratio is a certain percentage of bank deposits which banks are required to keep with RBI in the form of reserves or balances. Higher the CRR with the RBI lower will be the liquidity

in the system and vice versa. RBI is empowered to vary CRR between 15 percent and 3 percent. But as per the suggestion by the Narsimham committee Report the CRR was reduced from 15% in the 1990 to 5 percent in 2002. As of 4 October 2016, the CRR is 4.00 percent. *Notes*

Statutory Liquidity Ratio

Every financial institution has to maintain a certain quantity of liquid assets with themselves at any point of time of their total time and demand liabilities. These assets have to be kept in non cash form such as G-secs precious metals, approved securities like bonds etc. The ratio of the liquid assets to time and demand liabilities is termed as the Statutory liquidity ratio. There was a reduction of SLR from 38.5% to 25% because of the suggestion by Narsimham Committee. The current SLR is 19.50%.

Bank Rate Policy

The bank rate, also known as the discount rate, is the rate of interest charged by the RBI for providing funds or loans to the banking system. This banking system involves commercial and co-operative banks, Industrial Development Bank of India, IFC, EXIM Bank, and other approved financial institutes. Funds are provided either through lending directly or discounting or buying money market instruments like commercial bills and treasury bills. Increase in Bank Rate increases the cost of borrowing by commercial banks which results in the reduction in credit volume to the banks and hence declines the supply of money. Increase in the bank rate is the symbol of tightening of RBI monetary policy. As on 1st August 2018, bank rate is 6.75 percent.

Credit Ceiling

In this operation RBI issues prior information or direction that loans to the commercial banks will be given up to a certain limit. In this case commercial bank will be tight in advancing loans to the public. They will allocate loans to limited sectors. Few examples of ceiling are agriculture sector advances, priority sector lending.

Credit Authorization Scheme

Credit Authorization Scheme was introduced in November, 1965 when P C Bhattacharya was the chairman of RBI. Under this instrument of credit regulation RBI as per the guideline authorizes the banks to advance loans to desired sectors.

Moral Suasion

Moral Suasion is just as a request by the RBI to the commercial banks to take so and so action and measures in so and so trend of the economy. RBI may request commercial banks not to give loans for unproductive purpose which does not add to economic growth but increases inflation.

Repo Rate and Reverse Repo Rate

Repo rate is the rate at which RBI lends to its clients generally against government securities. Reduction in Repo rate helps the commercial banks to get money at a cheaper rate and increase in Repo rate discourages the commercial banks to get money as the rate increases and becomes expensive. Reverse Repo rate is the rate at which RBI borrows money from the commercial banks. The increase in the Repo rate will increase the cost of borrowing and lending of the banks which will discourage the public to borrow money and will encourage them to deposit. As the rates are high the availability of credit and demand decreases resulting to decrease in inflation. This increase in Repo Rate and Reverse Repo Rate is a symbol of tightening of the policy.

Present Monetary System of India

1. ***Unit of Money:*** The unit of money in India is the rupee, it is not only a medium of exchange but also a unit of value which facilitates accounting. As a unit of account, the rupee helps in the estimation of costs and prices and revenues of firms and projects, and the gross national product.

2. ***Monetary Standard:*** The present monetary standard of India is the managed paper currency standard. According to this, the paper currency is in circulation which is non-convertible into gold. It is managed paper standard because the issue of notes and coins is managed by the Reserve Bank of India

3. ***Types of Coins and Notes (or Currency):*** The following types of coins and notes are included in India's present monetary system:

   (i) ***Coins:*** The Rupee-coin in India is a standard token coin whose intrinsic value of the metal is less than its face value. If the Rupee-coin is melted, its metal will not be sold worth one rupee. The Rupee-coin is an unlimited legal tender in which payment of any amount can be made. There are also ₹ 2 coin and ₹ 5 coins in circulation since 1990.

   (ii) ***Subsidiary Coins:*** There are also subsidiary coins in India to assist the token money. At present, coins of the denominations of 1 paisa and 3, 5, 10, 20, 25 and 50 paisa are in circulation. The 50-paise coin like the Indian rupee-coin is unlimited legal tender.

   But all coins from 1 paisa to 25 paise are limited legal tender for which payment can be made only up to ₹ 25. The minting of 1, 3, 5, 9 and 10 paisa coins has been stopped since 1996 but they will remain in circulation till their transactions are stopped by the public themselves.

   (iii) ***Notes or Paper Currency:*** Paper currency in India consists of notes of various denominations which are issued by the Reserve Bank of India and the Government of India. The one-rupee note is issued by the Ministry of Finance of the Government of India and bears the signature of the Secretary.

   It is inconvertible paper money which is also known as fiat money or representative or token money. But it is unlimited legal tender. The other notes of the denominations of ₹ 2, 5, 10, 20, 50, 100 and 500 are issued by the Reserve Bank of India. They are inconvertible into gold but are unlimited legal tender. They are convertible into coins and notes. They are fiduciary money.

   (iv) ***System of Note Issue:*** The present system of note issue in India is the Minimum Reserve System. Under this system, the RBI is authorised to issue notes up to any extent but it must keep a statutory minimum reserve of gold and foreign securities. Accordingly, the RBI is required to keep a minimum reserve of ₹200 crores. Of this, ₹ 115 crores must be in gold and ₹ 85 crores in foreign securities.

4. ***Money Supply:*** In India, the money supply consists of both narrow money (M1) and broad money (M3). M1 consists of currency notes and coins with the public, demand deposits with commercial and co-operative banks and other deposits with RBI. M3 consists of M1 plus time deposits with banks and is also known as aggregate monetary resources. As on 31 March, 2003, the total M1 in India was ₹4,72,827 crores and M3 was ₹ 17,25,222 crores.

External Features of India's Monetary System

The external features of India's present monetary system are the following:

1. Foreign Exchange Rate

Since January 1976 with the signing of Jamaica Agreement, India is following the policy of floating exchange rates. According to this, the external value of Indian rupee is linked to a 'basket' of currencies of those countries with which India has large trade. This is the Nominal Effective Exchange Rate (NEER) of the rupee which is a weighted average of exchange rates vis-a-vis the currencies of India's major trading partners.

[illegible]

[illegible]

2. Exchange Control

[illegible]

[illegible]

[illegible]

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2.8 INTERNATIONAL ADJUSTMENT

International Adjustment is the use of mechanisms by a central bank to influence a home currency's exchange rate. An adjustment is specifically made if the exchange rate is not pegged to another currency, meaning that the currency is valued according to a floating exchange rate. Because the central bank intervenes in the home currency's exchange rate to reduce short-term fluctuations, this is considered a managed floating exchange rate.

Central banks may become involved in adjustment if they believe that movements in the home currency are too "extreme", especially since a rapid increase or decrease in a currency's value can lead to significant effects on its economy. Inconsistent adjustment policies in terms of an exchange rate mechanism (ERM) result in uncertainty on the part of investors and are referred to as a "dirty" managed exchange rate policy.

(a) Adjustment as an Achievement

Adjustment as an achievement means how effectively an individual could perform his duties in different circumstances. Business, military education and other social activities need efficient and well-adjusted men for the progress and wellbeing of the nation. If we interpret adjustment as achievement then we will have to set the criteria to judge the quality of adjustment.

(b) Adjustment as Process

Adjustment as a process is of major importance for psychologists, teachers and parents. To analyze the process we should study the development of an individual longitudinally from his birth onwards. The child, at the time of his birth is absolutely dependent on others for the satisfaction of his needs, but gradually with age he learns to control his needs. His adjustment largely depends on his interaction with the external environment in which he lives. When the child is born, the world for him is a big buzzing, blooming confusion. He cannot differentiate among the various objects of his environment but as he matures he comes to learn to articulate the details of his environment through the process of sensation, perception, and conception.

2.8.1 Concept of Adjustment

Adjustment is the relationship which comes to be established between the individual and the environment. Every individual plays certain position in his social relations. He is trained to play his role in such a way that his maximum needs will be fulfilled. So, he should play his role properly and get maximum satisfaction. If he does not play his role according to standards and training Home Environment received his needs may not be fulfilled and he may get frustrated.

Structural Adjustment in India

In 1991, India faced an unprecedented balance of payments crisis. For almost a decade the government had borrowed heavily to support an economic strategy that relied on expansionary public spending to finance growth. From 1980 to 1991 India's domestic public debt increased steadily, from 36 percent to 56 percent of the GDP, while its external debt more than tripled to $70 billion.

Political changes, unrest in parts of the country, and the 1990 Persian Gulf crisis compounded the already volatile situation. The crisis caused oil prices to rise, substantially increasing the cost of oil imports, and foreign exchange earnings to drop. India's creditworthiness, already under strain, became even more vulnerable as Indians from abroad withdrew their substantial foreign currency deposits and commercial banks reduced their exposure. Toward the end of 1990, India's creditworthiness was downgraded, effectively cutting its access to sources of commercial credit. By early 1991, India was on the brink of default.

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As the crisis unfolded the debates in India's political and economic circles increasingly focused on reform. In India's large and highly diverse democracy, those debates proved important in building political consensus around the voices for reform. Nevertheless, it took a new government, which came to power in June 1991, to launch India's first comprehensive economic policy reform program, which the World Bank supported with a $500 million structural adjustment operation (SAL), approved in December 1991 and closed in December 1993.

Project goals and implementation

The SAL's objectives were twofold: (1) to help India address its immediate balance of payments crisis and (2) to support a broad set of policy reforms aimed at liberalizing the Indian economy and opening it up to more competition both from within and abroad. The SAL was complemented by an IMF-supported stabilization program. And parallel financing was provided by other donors, as agreed at consortium meetings convened by the Bank.

The SAL proved to be the right response at the right time. The program it supported was bold but carefully sequenced to create a workable balance between economic necessity and the realities of India's political economy. The reforms focused first on the most binding constraints, which also produced quick results, helping to strengthen consensus around the reforms.

Within weeks of announcing the reform package, the government devalued the rupee by 23 percent, raised interest rates, and revised the 1991/92 union budget, making sharp cuts in subsidies and transfers to public enterprises. Over the next six months, it abolished the complex system of industrial and import licensing, liberalized trade policy, and introduced measures to strengthen capital markets and institutions. The reform agenda, though ambitious, was nearly fully implemented during the 1991-93 SAL period.

These measures were followed by additional reforms to liberalize investment, further deregulate trade policy, improve tax administration, and strengthen the financial sector. By 1995, India had moved from a regime in which private investment was not allowed in major economic sectors to one whose openness to foreign investment compares favorably with that of most Asian countries.

Results

The reforms produced immediate results. The timely provision of foreign exchange helped India weather its balance of payments crisis and improve its creditworthiness. Several key macroeconomic indicators improved more than projected (see table). After declining in the first year of the reforms, GDP growth resumed to 5 percent in 1993/94 and 6.3 percent in 1994/95. Exports increased almost 12 percent. Most important, there was a surge of foreign investment, which increased almost sevenfold over projections.

Economic Reforms and Structural Adjustment in India

It is evident from the reforms introduced in the Indian economy that from a planned economy it has moved towards a free-market economy. Though we still have mixed economy with both the public and private sectors coexisting but the role of private sector which is governed by market forces has been greatly increased and that of the public sector greatly diluted. So we now have a mixed economy with greater orientation towards a free market and private sector.

Now, 15 years have passed when we initiated economic reforms in 1991 laying greater emphasis on liberalisation and privatisation. Now, the pertinent question is whether these economic reforms have ensured higher and sustained economic growth which the supporters of these reforms argued they would, whether these reforms have led to a higher growth rate and to the greater reduction of poverty and unemployment which was expected of them.

The answer to these questions is a mixed one. Foreign exchange reserves which had gone too low in 1991 due to profligacy of the late 1980s and temporary oil shock of first Iraq (Kuwait) war in 1990,

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have substantially increased in the post- reform period. Foreign exchange reserves now (June 2005) stand at 140 billion US dollars. In fact, with regard to foreign exchange reserves, there is a problem of plenty. How to use this abundant foreign exchange for development purposes is posing a problem?

Following the adoption of export- oriented strategy in place of import-substitution strategy, exports on an average have grown at a higher rate in the post-reform period. As a result, exports of goods and services (including remittances) now (2004-05) account for 20 per cent of GDP as compared to 10 per cent in 1991.

An important achievement in this regard has been that India has become a leading country in software exports. India's software exports rose from near zero in 1991 to 17 billion US dollars in 2004-05. Foreign investment in India has raised from barely $ 100 million in 1990-91 to over $ 16 billion in 2004-05, thanks mainly to the increase in FII (foreign institutional investment) in our stock market.

Another achievement of economic reforms in the initial stages was that inflation rate had been controlled. The inflation rate as measured by change in Whole sale Price Index (WPI) which reached a peak of over 15 per cent in Aug. 1991 was brought down to 4.5 per cent in 1997-98.

The inflation rate as measured by WPI (1999-2000 = 100) varied somewhat since then but it had been small on an average till 2008-09. Annual rate of inflation as measured by WPI (1999-2000 = 100) was 7.1 per cent in 2000-01, 3.6 % in 2003-04, 6.5% in 2004-05 and 5.4% in 2006-07. It was about 4% in 2007- 08.

However, inflation rate flared up in 2008-09 when year-on-year inflation rate started rising from March 2008 and crossed 9% mark in June 2008 and 11% in August 2008 and WPI inflation reached a peak level of 12.63% in mid Sept. 2008 and after it started falling and was estimated at 8.1 per cent during 2008-09. It further fell to 3.8 per cent during 2009-10.

However, WPI inflation flared up again during 2010-11 and was estimated at 9.6% in 2010-11 and 9.4 per cent in 2011-12 and is at present remain (Aug. 2012) remained at around 8 per cent despite tightening of monetary policy by RBI in the last three years.

The inflation regarding consumer price index (CPI-IW) was estimated at 9.1% in 2008-09, 12.4 per cent in 2009-10, 10.4 per cent in 2010-11 and 9.1 per cent in 2011-12. It is now (Aug. 2012) has crossed 11 per cent. Thus, inflation at present is a matter of serious concern.

However, it may be noted that current inflation rate is not due to economic reforms undertaken since 1991. It is the result of both demand and supply-side pressures working in the Indian economy. Government's inability to reduce large fiscal deficit and to increase the supply of essential goods (especially food times) that are responsible for current inflation.

Economic Growth

A significant achievement of economic reforms has been that rate of economic growth on an average rose to 6.1 per cent per annum during 1992-2002 as compared to the previous decade of 1980's when GDP grew at 5.6 per cent annum (See Table 1). After 2003- 04 rate of economic growth rate rose further to 8% to 9% growth rate with the exception of year 2008- 09 when there was 6.7% growth rate brought about by global financial crisis.

It will be seen from the table that growth rate of industry where major reforms have been undertaken was estimated to be lower at 6.4 per cent per annum in the immediate post-reforms period during 1992-93-2000-01 (even omitting the year 1991-92) as compared to 7.1 per cent achieved in the pre-reform decade 1981-82-1990-91.

The industrial growth rate was still lower at 4.6 per cent per annum during the five years period of Ninth Plan, 1997-98-2000-02. The overall growth rate in GDP during the five year period of Ninth Plan (1997-98-2000-02) is 5.5 per cent which is less than that of pre-reform period.

Average Annual Growth Rate

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However industrial growth rate picked up to 8.9 in the 10th plan period 2002-07. It is important to note that overall higher growth rate of 6.1 % per annum in 1992-93 to 2000-01 years was achieved due to higher growth rate (7.8%) achieved in services.

As has been pointed out by Dr. Shankar Acharya the higher growth rate in services was due to large increase in government administration services where as a result of 5th Pay Commission large increases in salaries to the Government employees (including army) were given which pulled up the overall growth rate.

However, during the 9th plan period (1992-98 to 2002) and 10th plan period (2002-07) growth rate in services has been quite high, 8.1 % and 9.3% respectively. In fact, services have been the important driving force of economic growth in India in the last 15 years.

Recently from 2003 onward, industry also achieved appreciable growth rate of 8.9% per cent in the 10th plan period (2002-07) and 9 per cent in 2007-08. Leaving the year 2008-09 when industrial growth rate fell to 4.5 per cent it picked up to 8.3 per cent in 2009-10 and 7.9 per cent in 2010-11. However, during 2011 -12, it fell to 7.1 % due to adverse global conditions created by slow growth in the US and stagnation in European countries due to Eurozone crisis.

Even overall GDP growth in 2011-12 has fallen to 6.5 per cent as against the original target of 9 per cent for this year. Even prospects for industrial growth and overall GDP growth during 2012-13 are not bright due to the above mentioned factors which are still operating to lower economic growth rate of India.

However, it is agriculture which has registered a low growth in the last decade; agriculture grew at the rate of only 2 per cent per annum in the 9th plan period (1997-98 to 2002) and 2.5 per cent per annum in the 10th plan period (2002-07).This is mainly because in the post-reform period investment in agriculture has been very low.

A significant achievement of economic reforms has been a higher overall rate of economic growth in the post reform period A high overall growth rate of 6.2 per cent was achieved during 1991-2002, and about 8 per cent growth in GDP in the five years (2002-07) of 10th plan.

India has become one of the fastest growing economies of the world. In fact in the three years period (2005-08) annual average growth has been over 9 per cent which is quite a high rate of growth. However, the benefits of this high growth rate have not much trickled down to the poor. Therefore, the Eleventh Plan laid stress on inclusive growth along with the target growth of 9 per cent during the plan period.

However, India could not remain unaffected by global financial crisis (2007-09) which began with sub-prime housing loan crisis in the US but its effects spilled over to other countries due to the integration of present-day economies. Despite various stimulus measures (both fiscal and monetary) taken, India's GDP growth rate fell to 6.8 per cent as 2008-09. GDP growth recovered to 8.0% in 2009-10 and to 8.6 per cent in 2010-11.

Again due to slow recovery in the US and sovereign debt crisis in Europe, India's GDP growth is estimated to have fallen to 8 per cent in 2011-12. However, even with this growth rate India is the second highest growth economy of the world next only to China.

Besides, the geographic pattern of India's growth has remained highly uneven with the populous Central and Eastern States of Uttar Pradesh, Madhya Pradesh, Bihar, Jharkhand and Orissa lagging behind the rest of the country. In 2002, per capita income of Bihar was less than one quarter of levels of rich states like Haryana, Punjab and Maharashtra.

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As stated above, quite a dismal performance in the post-reform period has been witnessed in respect of agricultural growth. Agricultural growth has greatly decelerated after mid-1990s. Agriculture which had grown at 3.2 per cent per annum from 1980 to 1996 deteriorated to 2.0 per cent during the ninth plan (1997-2002). In the five years (2002-07) of the Tenth Plan agricultural growth was estimated at 2.5 per cent per annum against the target of 4 per cent per annum.

This shows whatever the objectives, in actual investment effort and implementation of programmes, agriculture, especially irrigation, has been grossly neglected. Besides, this shows that the process of economic growth in the post-reform period has not benefitted much 60 per cent of India's population which is engaged in agriculture.

Employment and Unemployment

But a more dismal performance of the Indian economy has been in respect of growth of employment opportunities. The growth of employment in the organised sector (consisting of industrial and services sectors, both public and private sectors) of the Indian economy has been negative in the last 15 years since 1991.

In fact at present (April 2010) about 40 million jobless persons are registered with the employment exchanges Further, as will be shown below from Table 3 rate of unemployment measured by current daily status approach of NSS rose to 7.3% in 1999-2000 and to 8.3 % in 2004-05.

This knocks out the argument advanced by pro-reform economists that higher economic growth by itself will generate enough employment opportunities. The dismal performance in respect of employment growth is due to three factors.

First, capital-intensive technologies have been used in the organised sector which has tended to displace labour rather than absorbing it in productive employment. Secondly, no attention has been made to the implementation of land reforms and improvement of the credit delivery system in agriculture. Thirdly, investment in agriculture, especially in irrigation, has been neglected.

The rate of daily status unemployment which is comprehensive measure of unemployment in India was estimated at 6.1 per cent of labour force rose to 7.3 per cent in 1999-2000 and further to 8.3 per cent in 2004-0.5. However, 66th round of NSS of 2009-10 found that unemployment rate on current daily status basis fell to 6.6 per cent of labour force.

This has been questioned by economists. It may be noted that 2009-10 was one of the worst drought year it was therefore expected that unemployment in this year would rise. On the other hand, planning commission claims that Mahatma Gandhi National Rural Employment Guarantee scheme (MGNREGS) was started on a large scale in 2009-10 which resulted in a large number of work opportunities. Consequently, rural unemployment declined. However, in our view employment opportunities created under MGNREGA is neither real or genuine nor stable.

Thus 66th NSS 2009-10 does not show any declining trend in unemployment rate in the economy. Further, 66th round (2009-10) of NSS has reported an increase of employment opportunities to the tune of 18 million under the current daily status (CDS) between 2004-05 and 2009-10 as against the target of generation of 58 million work opportunities during the five year period 2007-12.

This indicates unemployment would have risen in 2009-10. It may be noted that the growth rate of employment on current daily status basis has been found to be 2.62 per cent per annum during 1999-2000 to 2004-05 which is higher than 1.25 per cent per annum in 1993-94 to 1999-2000. But this higher growth in employment had been registered in the unorganised and informal sector where productivity of labour is quite low.

This was only to be expected. As mentioned above, the chief drawback of New Economic Policy has been that it involves the use of labour-saving modern technology, the competition from the imported products to be faced by the domestic industries, and public sector disinvestment on a large scale.

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The use of capital intensive technology not only displaces labour already employed but also lowers the growth of employment from the new investment and capital accumulation. Besides, due to the greater role assigned to the private sector, big business houses, foreign capital (MNCs) the already existing inequalities will further increase. This is against the objective of social justice which has been the cherished goal of the Indian planning.

Slowdown in Poverty Reduction and Economic Reforms

The impact of economic reforms on poverty in India is a highly controversial issue. The critics point out that the economic reforms aimed at liberalisation, privatisation and globalisation of the Indian economy has slowed down the reduction in poverty ratio (i.e. the percentage of population living below the poverty line) despite a higher rate of economic growth achieved in the post-reform period.

On the basis of uniform recall period (that is, 30 days recall period for all items included in the consumption basket for estimating poverty ratio), the poverty at all India level fell from 36 per cent in 1993-94 to 27.8 per cent in 2004-05, that is, about 0.79 per cent per annum fall in the poverty ratio in this period. This is much lower than the fall in poverty ratio (on URP basis) which declined from 51.3 per cent in 1977-78 to 38.9 per cent in 1987-88, that is, about 1.24 per cent annual fall in poverty ratio in these 10 years of pre-reform period.

What has caused this slowdown reduction of poverty in the post-reform period? First, there has been slow growth of productive employment opportunities relative to population growth resulting in increase in unemployment which on daily status basis, as mentioned above, rose from 6.1 per cent in 1993-94 to 7.3 per cent in 1999-2000 and further to 8.2 per cent in 2004-05. Secondly, due to liberalisation of cheap imports of capital goods abroad, the small and medium enterprises (SME) could not compete with them resulting in their closure and decrease in employment opportunities.

Thirdly, in the post-reform period the rate of investment in agriculture has been significantly reduced. As a result, there has been a low rate of growth in agriculture in the post-reform period. This caused a relative reduction in the supply of wage goods, especially food-grains which has increased the problem of hunger and malnutrition in various vulnerable sections of population in various parts of the country.

It was expected that higher rate of growth will ensure greater reduction in poverty. However, this did not happen as growth rate achieved from 1993-94 to 2004-05 has been 6.3 percent per annum which is higher than 5.6 percent achieved in the pre-reform period of eighties.

The debate on poverty flared up when the planning commission released the data on poverty estimates for the 66th round of NSS for the year 2009-10. These poverty estimates were based on the new poverty line norm suggested by an expert committee headed by Late Prof. Suresh Tendulkar which submitted its report in 2009.

The committee deviated from the calorie intake as norm for poverty estimates and included in their poverty line poverty-indices for health and education. Thus contrary to popular belief, the poverty line was higher in Tendulkar committee approach. Therefore, to compare the estimates for 2009-10, poverty estimates were prepared afresh on the basis of new poverty line suggested by Tendulkar committee approach.

The poverty line in 2009-10 was fixed at ₹ 4298 per month for a family in urban areas and ₹ 3364 per month for a family in rural areas. According to estimates on the basis of new poverty line, the people living below the poverty line fell to 29.8% of its population in 2009-10 from 37.2% in 2004-05. That is, poverty declined by 1.5 percentage points per annum between 2004-05 and 2009-10.

It is the fastest decline in poverty compared to the earlier periods. The several economists and social scientists challenged the new poverty norm and the significant fall in the poverty ratio keeping in view that 2009-10 was one of the worst drought years.

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However, the Planning Commission attributed it to high rate of economic growth and government intervention by way of starting special anti-poverty schemes such as MGNREA on a large scale during 2009-10. The critics also raised the question regarding whether a person can live or survive with the meagre amount of money fixed as poverty line norm by Tendulkar committee.

The criticism of poverty estimates was so severe that government appointed a new expert committee to suggest appropriate methodology for fixing poverty line norm and prepare estimates of poverty in India on the basis of new norm.

Adverse Effects of Globalisation

Economic reforms undertaken since 1991 brought about globalisation of the Indian economy as under them the Indian economy was opened up. Trade liberalisation occurred following removal of quantitative restrictions on imports and large reduction in tariffs.

Reforms also led to the free flow of foreign capital. This benefitted India as its exports increased at a higher rate and balance of payments on current account improved. Further foreign investment in India contributed to a higher growth rate achieved in the post-reform period. However, globalisation is not without dangers.

Foreign Exchange Rate Volatility

The adverse effect of globalisation has been clearly seen recently in the last two years, 2007 and 2008. First, the free flow of portfolio capital has created a lot of volatility in exchange rate of rupee. Due to large capital inflows the value of rupee which was around ₹ 46 to a US dollar in end-March 2004, appreciated to ₹ 44.27 to a US dollar in end-March 2006 and further to ₹ 39.4 to a dollar in Jan. 2008.

This appreciation of rupee made our exports costlier and thus discouraged the growth of our exports. Besides, appreciation of rupee made our imports cheaper causing increase in our imports. Though the increase in imports helped in controlling inflation, they adversely affected our balance of payments position.

Global Financial Crisis

However, when financial crisis in the US which was triggered by defaults of subprime-housing loans given by American banks and other financial institutions in the US deepened in 2008, creating liquidity crunch in the American economy, Capital outflows started occurring from India. The flight of capital from India led to depreciation of Indian rupee. To meet liquidity requirements in their parent country, foreign financial institutions (FII) started selling shares of Indian corporate companies and got rupee receipts converted into US dollars which they repatriated to their parent country.

These outflows of dollars led to the increase in demand for US dollars in the foreign exchange market which caused the depreciation of Indian rupee. The depreciation of rupee will make our imports, especially crude oil costlier and can adversely affect our balance of payments. The higher prices of imported products, especially capital goods and metals, will tend to raise inflation rate in India.

From August 2011 there was again outflow of capital due to uncertainty caused by worsening of sovereign debt crises of European countries and slowdown of the US economy. The capital outflows led to a large depreciation of rupee from Sept. 2011. The Indian rupee which was around ₹ 44 to a US dollar in Aug. 2011 fell to nearly ₹ 52 to a US dollar on Nov. 2011 and further to ₹ 53 to a US dollar in mid Dec. 2011. From Jan to March 2012 value of the Indian rupee remained within range of ₹ 51 to 52 to a US dollar.

But prospects of growth of the Indian economy became dim and warning of a global rating agency S&P in June 2012 said that India might lose its investment grade sovereign rating spooked investor sentiment which caused capital outflows on a large scale causing a sharp depreciation of rupee in June 2011 which fell even to a very low level of ₹ 57 to a US dollar in late June 2012.

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The sharp depreciation of rupee is harmful for the Indian economy. To prevent excessive depreciation of the Indian rupee, the RBI uses its foreign exchange reserves to sell US dollars in the foreign exchange market.

As a result, there is decline in foreign exchange reserves which are needed to cover imports of goods and services needed for industrial growth. Further, lack of adequate foreign exchange reserves with the RBI leads to the loss of confidence of the foreign investors about the ability of the country to pay back the loans. Besides, weakening of the rupee is likely to cause losses to the foreign investors who repatriate their profits to their home countries. This discourages inflows of foreign direct investment needed for economic growth of the country.

It is thus evident that capital outflows and consequent depreciation of rupee causes a lot of macroeconomic instability in the economy. Therefore, RBI intervened in the foreign exchange market to check the sharp depreciation of rupee through sale of US dollars in the foreign exchange market.

Besides, it took other measures to encourage capital flows into the Indian economy. It relaxed the norms for external commercial borrowing (ECB) so that the Indian companies directly borrow foreign money from abroad rather than through foreign exchange market.

RBI also raised the interest rate cap on NRI deposits of foreign exchange in our banks. Further, it eased the conditions for foreign direct investment (FDI) to encourage more capital inflows through this route. These measures helped in increasing capital inflows and excessive depreciation was checked.

It is evident from above that globalisation with its free capital flows causes a lot of volatility in exchange rate which has adversely affected the Indian economy. Besides, volatility in exchange rate, financial crisis in the US affected our stock market and banking system.

The financial crisis in the second half of 2007 following the defaults in sub-prime housing loans given by the American banks and other financial institutions resulted in the collapse of the banking system and crash in American stock markets.

This caused liquidity crunch in America and affected credit flow in the economy. The effects of this financial crisis were not only confined to America but also spilled over to other countries not only of Europe but also of Asia (including India) as they were integrated with America.

As a result of this world-wide financial crisis global meltdown occurred. Under pressure of redemption of securities of investment banks and other financial institutions, foreign institutional investors started selling shares in the Indian stock market and repatriating dollars to their parent countries.

These outflows of dollars also led to the liquidity crunch in the Indian banking system which affected credit flow for investment in the Indian economy. The recessionary conditions in the United States and global meltdown caused by the financial crisis also adversely affected the growth of our exports. The lower exports and costlier imports affected our current account balance of payments.

Besides, the aggressive selling of shares by FIIs which held substantial stock in the Indian corporate companies resulted in crash in Dalai Street, Sensex of Bombay Stock Exchange which reached the peak of20827 on January 11, 2008 fell to 15976 in May 2008, to 13531 on Sept. 15, 2008 and went below 10,000 mark on 17-10-2008. It reached a three year low of 8000 in the last week of Oct. 2008. This caused huge losses, to the Indian investors and washed away the vast amount of their wealth. Even the share prices of banks (both of public and private sectors) registered a sharp decline.

The negative wealth effect of the fall in the value of shares to affected the investment spending and demand of the investor class which adversely affected our industrial growth.

We have seen above that due to the globalisation of the Indian economy the bad effects of financial crisis originated in the United States have spilled over to the Indian economy.

Notes

Impact of Globalisation on Economic Growth

In the year 2008-09 global financial crises affected the Indian economy as it reduced the growth of our exports and caused capital outflows from the Indian economy as due to uncertain global conditions capital flows went to the safe destination of Government bonds of the US which is considered as quite safe investment.

As a result of this, investment or gross domestic capital formation (GDCF) in India fell to 34.3 per cent of GDP bringing down the growth rate to 6.7 per cent in 2008-09. As a result of various fiscal and monetary stimulus measures by the government investment rate as per cent of GDP rose to 36.6 per cent in 2009-10 and 35.1 per cent in 2010-11 which caused higher GDP growth rate of 8.4 per cent in both these years. But in 2011-12, the global environment again changed.

The deepening financial crisis in European countries, especially Greece and Spain, slow growth in the US and Japanese nuclear disaster resulted in a sharp global slowdown during 2011-12. As this happened quickly after the global recession of 2008-09 when the economies of the US and Europe had not yet fully recovered from the previous crisis, it was difficult to deal with Eurozone crisis.

Much of the fiscal and monetary policies to revive and stimulate the earlier recession of 2008-09 had not yet been fully withdrawn that threat of new global meltdown had to be faced. Thanks to India's rapid growth over the last two decades and its increasing integration with the world it could no longer be impervious to global developments.

Not surprisingly the Indian economy was adversely affected and its GDP growth fell to 6.5 per cent in 2011-12, the lowest in nine years since 2003. Further, even for the year 2012-13 RBI has forecast 6.5 per cent growth rate of GDP.

Besides, adverse global environment domestic factors also contributed to slowdown in economic growth in 2011-12 and 2012-13. The persistent inflation in the last three years required to control inflation by tightening monetary policy (i.e., raising interest rate and checking excessive growth in liquidity in the banking system by the RBI) raised the borrowing costs of the private corporate sector which forced them to defer various investment projects.

This resulted in lower investment in fixed capital assets and as a result as pt: cent of GDP it fell to 32.3 per cent in 2010-11 and further to 30 per cent in 2011-12. Further, policy paralysis caused by various scams and corruption charges on Ministers and top bureaucrats and hurdles put by various coalition partners of the government stalled the process of economic reforms.

Market Failures and Role of Government

The supporters of economic reforms which argued for diluting the role of public sector or Government as it does not ensure efficiency in production laid great stress on 'Government failures' in promoting economic growth. They however turned a blind eye to the market failures. To quote an eminent American economist Dr. Joseph Stiglitz, who won Nobel Prize in economics in recent years, "Market failures are a fact of life, as are government failures?

New liberal ideologies assume perfect markets, perfect information, and a host of other things which even the best performing market economies cannot satisfy". He therefore forcefully argues for a balanced approach to government and markets recognising that both are important and complementary".

This means both public sector and private sectors should play complementary roles in bringing about economic growth. Due to market failures we cannot rely on private sector alone to bring about sustained economic growth and adequate expansion in employment opportunities.

We are not arguing here that we should go back to 'license-permit Raj'. What we are stating is that (1) markets need to be regulated effectively by the Government if the objective of growth with equity is to be realised. Stock market scam of 1992 prompted by Harshad Mehta and the recent stock market

scam of 2001 engineered by Ketan Parikh and recent (2008) the Indian stock market crash triggered by financial crisis in the US caused by defaults of sub-prime housing loans there and collapse of the American banking system are shining examples of the absence of effective regulation of the market by the Government which is playing havoc with the economy.

Again UTI fiasco of July 2001 suspending the sale and repurchase of US-64 units has showed that activities of mutual funds and be effectively regulated and not left to the free working of markets. The recent financial crises in the US which has spilled ever to the European and Asian countries (including Indian) has clearly shown that free markets economy is not self-correcting.

It is due to the failure of market system to correct itself that even in the capitalist America the President Bush has planned 700 billion dollars to bail out the US economy. The US Government has announced buying of CDO securities and also equity shares of the banks and other financial institutions to solve their liquidity problem.

This implies a part ownership by the Government of banks and other financial institutions. This means free market or capitalist system cannot be relied upon for smooth functioning of an economy and the Government has to play an important role to avoid and overcome recession in the economy.

Further, apart from regulation of markets and private sector what is needed in the context of the Indian economy is the paramount role of Government in stepping up public sector investment in infrastructure if sustained rate of higher growth rate is to be achieved.

Government role is also crucial for adequate investment in social sectors such as education, health care and poverty alleviation programmes which are generally neglected by the private sector. For the purpose of poverty alleviation, undertaking of rural public works to utilise not only accumulated food stocks but also to generate employment opportunities for the poor and unemployed is of paramount importance for which the Government should increase its expenditure.

For the purpose of investment in infrastructure and social sectors (education and health care) and expenditure on employment schemes for the poor it should not hesitate to incur fiscal deficit. In this way if fiscal deficit increases, it should do so and does not follow unthinkingly IMF inspired policy of reducing fiscal deficit under all circumstances.

In our view reduction in fiscal deficit should not be elevated to a dogma. What is relevant is that Government should spend its borrowing for investment purposes, especially infrastructure and on development of human capital education and health care.

What is needed is that Government should not borrow for consumption purposes. Prof. Amartya Sen rightly writes that the success of liberalisation and closer integration with the world economy may be severely impaired by India's backwardness in basic education, elementary health care, gender inequality and limitations of land reforms.

While Manmohan Singh did initiate the correction of governmental over-activity in some fields, the need to correct the governmental under-activity in other areas has not really been addressed. Further, referring to the higher growth rate in some East and South East Countries which have received high growth rate with considerable equality he writes, "These countries all share some conditions that are particularly favourable to widespread participation of the population in economic change. The relevant features include high rates of literacy, a fair degree of female empowerment, and quite radical land reforms.

2.8.2 Types of Adjustment

1. Normal Adjustment
2. Abnormal adjustment

Notes

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Notes

1. Normal Adjustment

When a relationship between an individual and his environment is according to established norms then that relationship is considered as normal adjustment. A child who obey his parents, who is not unduly stubborn; who studies regularly and has neat habit is considered adjusted.

2. Abnormal Adjustment

Abnormal Adjustment means problem behavior or popular speaking maladjustment. Maladjustment takes place when the relationship between an individual and his environment is not according to established standards or norms. A delinquent child adjusts with his environment but he is a maladjusted child because he is violating certain moral codes.

2.8.3 Adjustment Mechanism

An adjustment mechanism may be defined as "any habitual method of overcoming blocks, reaching goals, satisfying motives, relieving frustrations and maintains equilibrium". Adjustment mechanism is a device by which an individual reduces his tensions or anxiety in order to adjust himself properly with the environment. It helps him to regain his mental health. To solve his problems or to meet conflicting situations a child's uses certain self-adjective, self-defensive approaches which may protect him from his frustactive situations. These are called defense mechanism. For e.g. A child is trained to sleep throughout the night without asking for milk. A child who plays his role successfully gets love and emotional security from his mother and he adjusts well to his home environment. On the other hand, if the child does not sleep properly and carries on his infantile role, he may get scolding and spanking from his mother. He may not be looked after properly and his mother's attitude may become indifferent and formal about him. Naturally the child may feel frustration. For e.g. Once the child learns that while he is sleeping, his mother does not remain with him, his first reaction may be of frustration, then he may accommodate and later on, he may assimilate in the situation so completely that he may accept it ads life and he may not mind his mother's going out of his room while he is awake. The conscious and the rational method are known as direct method and unconscious method is known as indirect method.

2.8.4 Characteristics of Adjustment Mechanism

Adjustment mechanism is almost used by all people. They are ideas which are inferred from the behavior of the individuals. All mechanisms are used to protect or enhance the persons self-esteemed against dangers. They increase satisfaction and help in the process of adjustment if used with in limit.

The danger is always with in the person. He fears his own motives. The fear and danger are manifested in adjustment mechanism. The overall effect of adjustment mechanism is to cripple the individual's functioning and development through falsifying some aspects of his impulses so that he is deprived of accurate self-knowledge as a basis for action.

2.9 FOREIGN EXCHANGE RATE

Foreign exchange rate is the conversion rate of one currency into another. This rate depends on the local demand for foreign currencies and their local supply, country's trade balance, strength of its economy and other such factors.

Exchange rates impact and are impacted by, international trade, in a free-market system that helps to maintain a balance of trade and balance of capital. For example, a skewed change rate can make a company's exports cheaper than their foreign counterparts, but for a country to achieve this artificially they must sell their own currency by borrowing against the nation's wealth to purchase another nation's currency. If exports or all capital are in high demand, a country's currency will rise in value because of the demand for that currency to pay for exported goods, services and capital.

Notes

2.9.1 Meaning of Foreign Exchange Rate

Foreign exchange rate refers to an exchange rate between two currencies at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in terms of another currency. Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous 24 hours a day except weekends.

2.9.2 Importance of Foreign Exchange Rate

Exchange rates are important because they value of money isn't the same everywhere. If the exchange rate in one country is higher than another, this means that the value of money is worth more when trading to a country with money of a lower exchange rate.

Foreign exchange rates play a vital role in a country's level of trade, which is critical to most every free market economy in the world. For this reason, exchange rates are among the most watched analyzed and governmentally manipulated economic measures. But exchange rates matter on a smaller scale as well: they impact the real return of an investor's portfolio.

A higher currency makes a country's exports more expensive and imports cheaper in foreign markets; a lower currency makes a country's exports cheaper and its imports more expensive in foreign markets. A higher exchange rate can be expected to lower the country's balance of trade, while a lower exchange rate would increase it.

Numerous factors determine exchange rates and all are related to the trading relationship between two countries. The exchange rates are relative, and are expressed as a comparison of the currencies of two countries.

Exchange Rates are very important for any country as they determine the level of imports and exports. If a domestic currency appreciates with respect to a foreign currency, imported goods will be cheaper in the domestic market and local companies would find that their foreign competitor's goods become more attractive to customers. If the country has a strong currency then its goods become more expensive in the international market, which results in lost competitiveness

2.9.3 Objectives of Foreign Exchange Rate

Monetary policy strategies have been implemented within a flexible exchange rate scheme that is governed by intervention rules with the following objectives:

i) To maintain an adequate level of international reserves that will lessen the economy's vulnerability to external shocks, both in the current and capital accounts.

ii) To limit excessive volatility of the exchange rate in the short term.

iii) To moderate excessive appreciation or depreciation of the nominal exchange rate that could jeopardize the achievement of future inflation targets, as well as the economy's external and financial stability.

2.9.4 Foreign Exchange Regulation Act, 1973

The origin of the Foreign Exchange Regulation Act dates back to the year of Indian independence, 1947. At that time, it was legislated as a temporary measure to regulate the inflow of foreign capital in the form of branches and concerns with the substantial non-resident interest, and the employment of foreigners and later in 1957, it was placed permanently. Gradually, there arose the need to conserve foreign exchange owing to the rapid industrialization in the country. Consequently, The Foreign Exchange Regulation Act, 1973 was passed with some important changes in the old version which contained very harsh laws. Every offence under the act was made punishable with imprisonment. Thereafter, FERA 1973 was amended in order to remove unnecessary restrictions in respect of companies registered in

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India and to simplify the regulations regarding foreign investment in order to attract better flow of foreign capital and investment. Finally, Foreign Exchange Management Act (FEMA) was enacted in 1999 to replace the Foreign Exchange Regulation Act, 1973.

Important features of FERA are as follows:

1) RBI can authorize a person/company to deal in foreign exchange.
2) RBI can authorize the dealers to do transact the Foreign Currencies, subject to review and RBI was given power to revoke the authorization in case of non-compliancy
3) RBI would authorize the persons as Money Changers who will convert the currency of one nation to currency of their nation at rates "Determined by RBI"
4) NO person, other than "authorized dealer" would enter in any transaction of the foreign currency.
5) For whatever purpose Foreign exchange was required, it was to be used only for that purpose. If he feels that he cannot use the currency of that particular purpose, he would sell it to a authorized dealer within 30 days.
6) No person in India, without "permission from RBI" shall make payments to a person resident outside India and receive any payment from a person from outside India.
7) No person shall draw issue or negotiate any bill of exchange in which a right to receive payment outside India is created.
8) No person shall make any credit in an account of a person resident out of India.
9) No person except authorized by RBI shall send foreign currency out of India.
10) A person who has right to receive the foreign exchange would have not to delay the receipt of the foreign exchange.

To sum up, in FERA "anything and everything" that has to do something with Foreign Exchange was regulated. The Experts called it a "Draconian Act" which hindered the growth and modernization of Indian Industries. The important aspect of FEMA, in contrast with FERA is that it facilitates Trade, while that of FERA was that it "prevented" misuse. The focus was shifted from Control to Management.

2.9.5 Foreign Exchange Management Act, 1999

The Foreign Exchange Regulation Act of 1973 (FERA) in India was repealed on 1 June, 2000. It was replaced by the Foreign Exchange Management Act (FEMA), which was passed in the winter session of Parliament in 1999. Enacted in 1973, in the backdrop of acute shortage of Foreign Exchange in the country, FERA had a controversial 27 year stint during which many bosses of the Indian Corporate world found themselves at the mercy of the Enforcement Directorate (E.D.). Any offense under FERA was a criminal offense liable to imprisonment, whereas FEMA seeks to make offenses relating to foreign exchange civil offenses.

FEMA, which has replaced FERA, had become the need of the hour since FERA had become incompatible with the pro-liberalization policies of the Government of India. FEMA has brought a new management regime of Foreign Exchange consistent with the emerging frame work of the World Trade Organization (WTO). It is another matter that enactment of FEMA also brought with it Prevention of Money Laundering Act, 2002 which came into effect recently from 1 July, 2005 and the heat of which is yet to be felt as "Enforcement Directorate" would be investigating the cases under PMLA too.

Unlike other laws where everything is permitted unless specifically prohibited, under FERA nothing was permitted unless specifically permitted. Hence the tenor and tone of the Act was very drastic. It provided for imprisonment of even a very minor offence. Under FERA, a person was presumed guilty unless he proved himself innocent whereas under other laws, a person is presumed innocent unless he is proven guilty.

Notes

2.9.6 Salient features of FEMA

i) It will facilitate trade rather than prevent misuse of foreign exchange.

ii) Definitions of capital account transaction and current account transaction have been introduced keeping in mind the possibility of introduction of capital account convertibility in the near future.

iii) All current account transactions shall be allowed (subject to reasonable restrictions). Reserve Bank to classify those capital account transactions that are to be permitted and to regulate transfer and issue of foreign securities by a resident in/outside India as well as setting up of branches/offices by foreign companies in India.

iv) All key sections relating to dealings, holding and payments in foreign exchange and exports have been simplified.

v) Liberalization in enforcement provisions reflects that the attitude is of putting trust in the persons covered.

2.9.7 Foreign Exchange Management Policy in India

Independence ushered in a complex web of controls for all external transactions through a legislation i.e., Foreign Exchange Regulation Act (FERA), 1947. There were further amendments made to the FERA in 1973 where the regulation was intensified. The policy was designed around the need to conserve Foreign Exchange Reserves for essential imports such as Petroleum goods and food grains.

The year 1991 was an important milestone for the Economy. There was a paradigm shift in the Foreign Exchange Policy. It moved from an Import Substitution strategy to Export Promotion with sufficient Foreign Exchange Reserves. The adequacy of the Reserves was determined by the Guidotti (1) Rule, though the actual implementation of the rule was modified to meet our requirements.

As a result of measures initiated to liberalize capital inflows, India's Foreign Exchange

Reserves (mainly foreign currency assets) have increased from US$6 billion at end-March 1991 to US$ 270 billion (2) as on 9th November 2007. It would be useful to note that the Reserves accretion can be attributed to large Foreign Capital Inflow that could not be absorbed in the economy. This has been as a result of shift of funds from developed economies to emerging markets like India, China and Russia.

2.9.8 Determinants of Foreign Exchange Rates

There are several factors determine exchange rates and all are related to the trading relationship between two countries. The exchange rates are relative and are expressed as a comparison of the currencies of two countries. The following are some of the principal determinants of the exchange rate between two countries:

1. Differentials in Inflation

As a general rule, a country with a consistently lower inflation rate exhibit a rising currency value, as its purchasing power increases relative to other currencies. During the last half of the twentieth century, the countries with low inflation included Japan, Germany and Switzerland, while the U.S. and Canada achieved low inflation only later. Those countries with higher inflation typically see depreciation in their currency in relation to the currencies of their trading partners. This is also usually accompanied by higher interest rates.

2. Differentials in Interest Rates

Interest rates, inflation and exchange rates are all highly correlated. By manipulating interest rates, central banks exert influence over both inflation and exchange rates, and changing interest rates impact inflation and currency values. Higher interest rates offer lenders in an economy a higher return relative

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to other countries. Therefore, higher interest rates attract foreign capital and cause the exchange rate to rise. The impact of higher interest rates is mitigated, however, if inflation in the country is much higher than in others, or if additional factors serve to drive the currency down. The opposite relationship exists for decreasing interest rates - that is, lower interest rates tend to decrease exchange rates.

3. Current-Account Deficits

The current account is the balance of trade between a country and its trading partners, reflecting all payments between countries for goods, services, interest and dividends. A deficit in the current account shows the country is spending more on foreign trade than it is earning, and that it is borrowing capital from foreign sources to make up the deficit. In other words, the country requires more foreign currency than it receives through sales of exports, and it supplies more of its own currency than foreigners demand for its products. The excess demand for foreign currency lowers the country's exchange rate until domestic goods and services are cheap enough for foreigners, and foreign assets are too expensive to generate sales for domestic interests.

4. Public Debt

Countries will engage in large-scale deficit financing to pay for public sector projects and governmental funding. While such activity stimulates the domestic economy, nations with large public deficits and debts are less attractive to foreign investors. A large debt encourages inflation, and if inflation is high, the debt will be serviced and ultimately paid off with cheaper real dollars in the future. In the worst case scenario, a government may print money to pay part of a large debt, but increasing the money supply inevitably causes inflation. Moreover, if a government is not able to service its deficit through domestic means (selling domestic bonds, increasing the money supply), then it must increase the supply of securities for sale to foreigners, thereby lowering their prices. Finally, a large debt may prove worrisome to foreigners if they believe the country risks defaulting on its obligations. Foreigners will be less willing to own securities denominated in that currency if the risk of default is great. For this reason, the country's debt rating (as determined by Moody's or Standard & Poor's, for example) is a crucial determinant of its exchange rate.

5. Terms of Trade

The ratio comparing export prices to import prices, the terms of trade is related to current accounts and the balance of payments. If the price of a country's exports rises by a greater rate than that of its imports, its terms of trade have favorably improved. The increasing terms of trade shows greater demand for the country's exports. This, in turn, results in rising revenues from exports, which provides increased demand for the country's currency (and an increase in the currency's value). If the price of exports rises by a smaller rate than that of its imports, the currency's value will decrease in relation to its trading partners.

6. Political Stability and Economic Performance

Foreign investors inevitably seek out stable countries with strong economic performance in which to invest their capital. A country with such positive attributes will draw investment funds away from other countries perceived to have more political and economic risk. Political turmoil, for example, can cause a loss of confidence in a currency and a movement of capital to the currencies of more stable countries.

2.9.9 Types of Foreign Exchange Rates

In the foreign exchange market, at a particular time, there exists, not one unique exchange rate, but a variety of rates, depending upon the credit instruments used in the transfer function. Major types of exchange rates are as follows:

Notes

1. Spot Rate
2. Forward Rate
3. Long Rate
4. Fixed Exchange Rate
5. Flexible Exchange Rate

1. Spot Rate

Spot rate of exchange is the rate at which foreign exchange is made available on the spot. It is also known as cable rate or telegraphic transfer rate because at this rate cable or telegraphic sale and purchase of foreign exchange can be arranged immediately. Spot rate is the day-to-day rate of exchange. The spot rate is quoted differently for buyers and sellers. For example, $ 1 = ₹ 15.50 for buyers and $ 1 = ₹ 15.30 for the seller. This difference is due to the transport charges, insurance charges, dealer's commission, etc. These costs are to be borne by the buyers.

Spot market is the commodities or securities market in which goods are sold for cash and delivered immediately. Contracts bought and sold on these markets are immediately effective.

A futures transaction is for which commodities can be reasonably expected to be delivered in one month or less. Though these goods may be bought and sold at spot prices, the goods in question are traded on a forward physical market.

The spot market is also called the "cash market" or "physical market", because prices are settled in cash on the spot at current market prices, as opposed to forward prices. Crude oil is an example of a future that is sold at spot prices but its physical delivery occurs in one month or less.

Depending on the item being traded, spot prices can indicate market expectations of future price movements in different ways. For a security or non-perishable commodity (e.g. silver), the spot price reflects market expectations of future price movements. In theory, the difference in spot and forward prices should be equal to the finance charges, plus any earnings due to the holder of the security, according to the cost of carry model. For example, on a share the difference in price between the spot and forward is usually accounted for almost entirely by any dividends payable in the period minus the interest payable on the purchase price. Any other cost price would yield an arbitrage opportunity and riskless profit.

2. Forward Rate

Forward rate of exchange is the rate at which the future contract for foreign currency is made. The forward exchange rate is settled now but the actual sale and purchase of foreign exchange occurs in future. The forward rate is quoted at a premium or discount over the spot rate. Forward Rate Agreement is an over-the-counter contract between parties that determines the rate of interest, or the currency exchange rate, to be paid or received on an obligation beginning at a future start date. The contract will determine the rates to be used along with the termination date and notional value. On this type of agreement, it is only the differential that is paid on the notional amount of the contract.

Typically, for agreements dealing with interest rates, the parties to the contract will exchange a fixed rate for a variable one. The party paying the fixed rate is usually referred to as the borrower, while the party receiving the fixed rate is referred to as the lender.

3. Long Rate

Long rate of exchange is the rate at which a bank purchases or sells foreign currency bills which are payable at a fixed future date. The basis of the long rate of exchange is the interest on the delayed payment. The long rate of exchange is calculated by adding premium to the spot rate of exchange in the

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case of credit purchase of foreign exchange and deducting premium from the spot rate in the case of credit sale.

4. Fixed Exchange Rate

Fixed or pegged exchange rate refers to the system in which the rate of exchange of a currency is fixed or pegged in terms of gold or another currency.

A fixed exchange rate system maintains fixed exchange rates between currencies; those rates are referred to as official parity. A nation with fixed exchange rates must enforce those rates. An early form of fixed exchange rates was to specify the value of a nation's currency in terms of gold (the "gold standard").

Fixed or Pegged exchange rates are typically used by smaller countries. To defend a particular rate, they may need to resort to central bank intervention, the imposition of tariffs or quotas, or the placement of restrictions on capital flow.

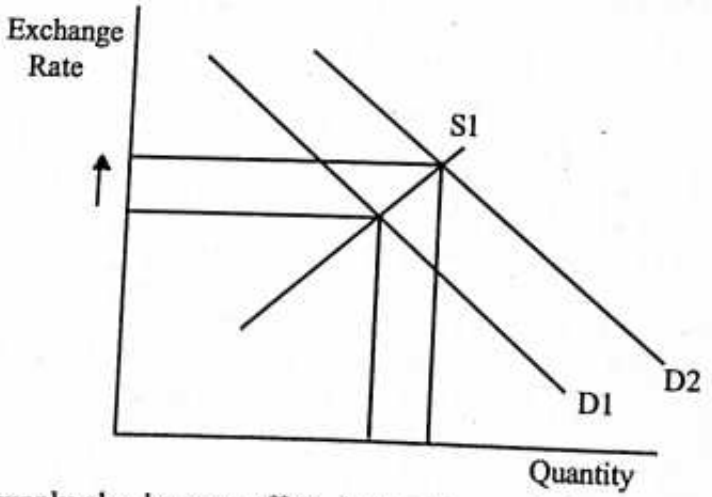
If the pegged exchange rate is too far from the actual market rate, it will be costly to defend and it will probably not last. Currency speculators may benefit from such a situation. Advantages of pegged exchange rates include a reduction in the volatility of the exchange rate (at least in the short-run) and the imposition of some discipline on government policies. One disadvantage is that it can introduce currency speculation.

5. Flexible Exchange Rate

Flexible or floating exchange rate refers to the system in which the rate of exchange is determined by the forces of demand and supply in the foreign exchange market. It is free to fluctuate according to the changes in the demand and supply of foreign currency.

2.9.10 Exchange Rates under Fixed and Floating Regimes

With floating exchange rates, changes in market demand and market supply of a currency cause a change in value. In the diagram below we see the effects of a rise in the demand for sterling perhaps caused by a rise in exports or an increase in the speculative demand for sterling. This causes an appreciation in the value of the pound.



Changes in currency supply also have an effect. In the diagram below there is an increase in currency supply (S1-S2) which puts downward pressure on the market value of the exchange rate.

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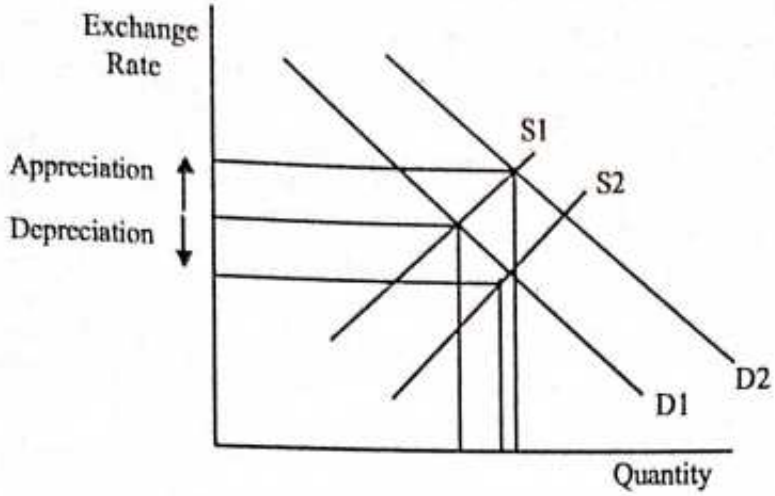

A currency can operate under one of four main types of exchange rate system.

2.9.11 Foreign Exchange Rate Risk

The price of one country's currency in terms of another country is called the exchange rate. When the currency of one country depreciates, there will be a corresponding appreciation of value in another country's currency. Depreciation occurs when it takes more currency to purchase the currency of another country. Appreciation is just the opposite; the currency is able to purchase more units of the other country's currency. Since most currencies are valued according to the marketplace, there are constant changes to exchange rates. This gives rise to exchange rate risk.

There are several ways to reduce exchange rate risk. Two popular approaches are hedging and netting. Hedging is where you buy or sell a forward exchange contract to cover liabilities or receivables that are denominated in a foreign currency. Forward exchange contracts offset the gains or losses associated with foreign receivables or payables. A very popular form of hedging is the Interest Rate Swap. Interest rate swaps are arrangements whereby two companies located in different countries agree to exchange or swap debt-servicing obligations. This swap helps each company avoid the risks of changes in the foreign currency exchange rates. Due to the popularity of interest rate swaps, most major international banks offer interest rate swaps for organizations concerned about foreign exchange rate risks when making interest payments. The costs charged by banks for interest rate swaps are relatively low.

Another solution to foreign exchange rate risk is the use of netting. Netting is the practice of maintaining an equal level of foreign receivables against foreign payables. The net position is zero and thus exchange rate risk is avoided. If you expect the currency to depreciate in value, than you should hold a net liability position since it will take fewer units of currency to pay the foreign currency debt. If you expect the currency to appreciate in value, then you would want to have a net receivable position to take advantage of the increased purchasing power of the foreign currency. There are other vehicles for dealing with exchange rate risk, such as option hedges and other types of derivatives. However, the costs and risks associated with these types of arrangements can be much higher than a simple approach such as the interest rate swap. If you have exchange rate exposure, then take a look at simple hedges and netting as ways of avoiding foreign exchange rate risk.

2.9.12 Exchange Rate Management

The management of the exchange rate is possible only if the government pursues a monetary-fiscal policy mix which is consistent with its exchange rate targets. In this paper with uncertainty concerning the length of individual life the real consequences of exchange rate management depend on the precise time pattern of the accompanying policies.

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Each country, through varying mechanisms, manages the value of its currency. As part of this function, it determines the exchange rate regime that will apply to its currency. For example, the currency may be free-floating, pegged or fixed, or a hybrid. If a currency is free-floating, its exchange rate is allowed to vary against that of other currencies and is determined by the market forces of supply and demand. Exchange rates for such currencies are likely to change almost constantly as quoted on financial markets, mainly by banks, around the world.

A movable or adjustable peg system is a system of fixed exchange rates, but with a provision for the devaluation of a currency. For example, between 1994 and 2005, the Chinese yuan renminbi (RMB) was pegged to the United States dollar at RMB 8.2768 to $1. China was not the only country to do this; from the end of World War II until 1967, Western European countries all maintained fixed exchange rates with the US dollar based on the Bretton Woods system. But that system had to be abandoned due to market pressures and speculations in the 1970s in favor of floating, market-based regimes. Still, some governments keep their currency within a narrow range. As a result currencies become over-valued or under-valued, causing trade deficits or surpluses.

A market based exchange rate will change whenever the values of either of the two component currencies change. A currency will tend to become more valuable whenever demand for it is greater than the available supply. It will become less valuable whenever demand is less than available supply (this does not mean people no longer want money, it just means they prefer holding their wealth in some other form, possibly another currency).

Increased demand for a currency can be due to either an increased transaction demand for money or an increased speculative demand for money. The transaction demand is highly correlated to a country's level of business activity, gross domestic product (GDP), and employment levels. The more people that are unemployed, the less the public as a whole will spend on goods and services. Central banks typically have little difficulty adjusting the available money supply to accommodate changes in the demand for money due to business transactions.

Speculative demand is much harder for central banks to accommodate, which they influence by adjusting interest rates. A speculator may buy a currency if the return that is the interest rate is high enough. In general, the higher a country's interest rates, the greater will be the demand for that currency. It has been argued that such speculation can undermine real economic growth, in particular since large currency speculators may deliberately create downward pressure on a currency by shorting in order to force that central bank to sell their currency to keep it stable.

2.9.13 Elements of Exchange Rate Management

Exchange Rate Management consists of the following elements:

1. Bilateral vs. effective exchange rate

Bilateral exchange rate involves a currency pair, while an effective exchange rate is a weighted average of a basket of foreign currencies, and it can be viewed as an overall measure of the country's external competitiveness. A nominal effective exchange rate (NEER) is weighted with the inverse of the asymptotic trade weights. A real effective exchange rate (REER) adjusts NEER by appropriate foreign price level and deflates by the home country price level. Compared to NEER, a GDP weighted effective exchange rate might be more appropriate considering the global investment phenomenon.

2. Uncovered interest rate parity

Uncovered interest rate parity (UIRP) states that an appreciation or depreciation of one currency against another currency might be neutralized by a change in the interest rate differential. If US interest rates increase while Japanese interest rates remain unchanged then the US dollar should depreciate against the Japanese yen by an amount that prevents arbitrage (in reality the opposite, appreciation,

quite frequently happens in the short-term, as explained below). The future exchange rate is reflected into the forward exchange rate stated today. In our example, the forward exchange rate of the dollar is said to be at a discount because it buys fewer Japanese yen in the forward rate than it does in the spot rate. The yen is said to be at a premium. *Notes*

UIRP showed no proof of working after the 1990s. Contrary to the theory, currencies with high interest rates characteristically appreciated rather than depreciated on the reward of the containment of inflation and a higher-yielding currency.

3. *Balance of payments model*

This model holds that a foreign exchange rate must be at its equilibrium level - the rate which produces a stable current account balance. A nation with a trade deficit will experience reduction in its foreign exchange reserves, which ultimately lowers (depreciates) the value of its currency. The cheaper currency renders the nation's goods (exports) more affordable in the global market place while making imports more expensive. After an intermediate period, imports are forced down and exports rise, thus stabilizing the trade balance and the currency towards equilibrium.

Like PPP, the balance of payments model focuses largely on trade-able goods and services, ignoring the increasing role of global capital flows. In other words, money is not only chasing goods and services, but to a larger extent, financial assets such as stocks and bonds. Their flows go into the capital account item of the balance of payments, thus balancing the deficit in the current account. The increase in capital flows has given rise to the asset market model.

4. *Asset market model*

The expansion in trading of financial assets (stocks and bonds) has reshaped the way analysts and traders look at currencies. Economic variables such as economic growth, inflation and productivity are no longer the only drivers of currency movements. The proportion of foreign exchange transactions stemming from cross border-trading of financial assets has dwarfed the extent of currency transactions generated from trading in goods and services.

The asset market approach views currencies as asset prices traded in an efficient financial market. Consequently, currencies are increasingly demonstrating a strong correlation with other markets, particularly equities. Like the stock exchange, money can be made or lost on the foreign exchange market by investors and speculators buying and selling at the right times. Currencies can be traded at spot and foreign exchange options markets. The spot market represents current exchange rates, whereas options are derivatives of exchange rates

2.9.14 Manipulation of Exchange Rates

Countries may gain an advantage in international trade if they manipulate the value of their currency by artificially keeping its value low, typically by the national central bank engaging in open market operations. It is argued that the People's Republic of China has succeeded in doing this over a long period of time. However, in a real-world situation, a 2005 appreciation of the Yuan by 22% was followed by a 38.7% increase in Chinese imports to the US. In 2010, other nations, including Japan and Brazil, attempted to devalue their currency in the hopes of subsidizing cheap exports and bolstering their ailing economies. A low exchange rate lowers the price of a country's goods for consumers in other countries but raises the price of goods, especially imported goods, for consumers in the manipulating country. The foreign exchange market is a global, worldwide-decentralized financial market for trading currencies. Financial centers around the world function as anchors of trading between a wide range of different types of buyers and sellers around the clock, with the exception of weekends. The foreign exchange market determines the relative values of different currencies.

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The foreign exchange market assists international trade and investment, by enabling currency conversion. For example, it permits a business in the United States to import goods from the United Kingdom and pay pound sterling, even though its income is in United States dollars. It also supports direct speculation in the value of currencies, and the carry trade, speculation on the change in interest rates in two currencies.

In a typical foreign exchange transaction, a party purchases a quantity of one currency by paying a quantity of another currency. The modern foreign exchange market began forming during the 1970s after three decades of government restrictions on foreign exchange transactions (the Bretton Woods system of monetary management established the rules for commercial and financial relations among the world's major industrial states after World War II), when countries gradually switched to floating exchange rates from the previous exchange rate regime, which remained fixed as per the Bretton Woods system.

The foreign exchange market is the most liquid financial market in the world. Traders include large banks, central banks, institutional investors, currency speculators, corporations, governments, other financial institutions, and retail investors. The average daily turnover in the global foreign exchange and related markets is continuously growing. According to the 2010 Triennial Central Bank Survey, coordinated by the Bank for International Settlements, average daily turnover was US$3.98 trillion in April 2010 (vs $1.7 trillion in 1998). Of this $3.98 trillion, $1.5 trillion was spot transactions and $2.5 trillion was traded in outright forwards, swaps and other derivatives.

Trading in the United Kingdom accounted for 36.7% of the total, making it by far the most important center for foreign exchange trading. Trading in the United States accounted for 17.9%, and Japan accounted for 6.2%. Turnover of exchange-traded foreign exchange futures and options have grown rapidly in recent years, reaching $166 billion in April 2010 (double the turnover recorded in April 2007). Exchange-traded currency derivatives represent 4% of OTC foreign exchange turnover. Foreign exchange futures contracts were introduced in 1972 at the Chicago Mercantile Exchange and are actively traded relative to most other futures contracts.

Most developed countries permit the trading of derivative products like futures and options on futures on their exchanges. All these developed countries already have fully convertible capital accounts. Some governments of emerging economies do not allow foreign exchange derivative products on their exchanges because they have capital controls. The use of derivatives is growing in many emerging economies. Countries such as Korea, South Africa, and India have established currency futures exchanges, despite having some capital controls.

Foreign exchange trading increased by 20% between April 2007 and April 2010 and has more than doubled since 2004. The increase in turnover is due to a number of factors: the growing importance of foreign exchange as an asset class, the increased trading activity of high-frequency traders, and the emergence of retail investors as an important market segment. The growth of electronic execution and the diverse selection of execution venues has lowered transaction costs, increased market liquidity, and attracted greater participation from many customer types. In particular, electronic trading via online portals has made it easier for retail traders to trade in the foreign exchange market. By 2010, retail trading is estimated to account for up to 10% of spot turnover, or $150 billion per day.

Foreign exchange is an over-the-counter market where brokers/dealers negotiate directly with one another, so there is no central exchange or clearing house. The biggest geographic trading center is the United Kingdom, primarily London, which according to The City UK estimates has increased its share of global turnover in traditional transactions from 34.6% in April 2007 to 36.7% in April 2010. Due to London's dominance in the market, a particular currency's quoted price is usually the London market price. For instance, when the International Monetary Fund calculates the value of its Special Drawing Rights every day, they use the London market prices at noon that day.

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2.9.15 Actors in Foreign Exchange Market

The various actors in foreign exchange market are as follows:

1. Banks

The interbank market caters for both the majority of commercial turnover and large amounts of speculative trading every day. Many large banks may trade billions of dollars, daily. Some of this trading is undertaken on behalf of customers, but much is conducted by proprietary desks, which are trading desks for the bank's own account. Until recently, foreign exchange brokers did large amounts of business, facilitating interbank trading and matching anonymous counterparts for large fees. Today, however, much of this business has moved on to more efficient electronic systems. The broker squawk box lets traders listen in on ongoing interbank trading and is heard in most trading rooms, but turnover is noticeably smaller than just a few years ago.

2. Commercial companies

An important part of this market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. Commercial companies often trade fairly small amounts compared to those of banks or speculators, and their trades often have little short term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency's exchange rate. Some multinational companies can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

3. Central banks

National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market. Nevertheless, the effectiveness of central bank "stabilizing speculation" is doubtful because central banks do not go bankrupt if they make large losses, like other traders would, and there is no convincing evidence that they do make a profit trading.

4. Foreign exchange fixing

Foreign exchange fixing is the daily monetary exchange rate fixed by the national bank of each country. The idea is that central banks use the fixing time and exchange rate to evaluate behavior of their currency. Fixing exchange rates reflects the real value of equilibrium in the market. Banks, dealers and traders use fixing rates as a trend indicator.

The mere expectation or rumor of a central bank foreign exchange intervention might be enough to stabilize a currency, but aggressive intervention might be used several times each year in countries with a dirty float currency regime. Central banks do not always achieve their objectives. The combined resources of the market can easily overwhelm any central bank. Several scenarios of this nature were seen in the 1992–93 European Exchange Rate Mechanism collapse, and in more recent times in Southeast Asia.

5. Hedge funds as speculators

About 70% to 90% of the foreign exchange transactions are speculative. In other words, the person or institution that bought or sold the currency has no plan to actually take delivery of the currency in the end; rather, they were solely speculating on the movement of that particular currency. Hedge funds have gained a reputation for aggressive currency speculation since 1996. They control billions of dollars of equity and may borrow billions more, and thus may overwhelm intervention by central banks to support almost any currency, if the economic fundamentals are in the hedge funds' favor.

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6. Investment management firms

Investment management firms (who typically manage large accounts on behalf of customers such as pension funds and endowments) use the foreign exchange market to facilitate transactions in foreign securities. For example, an investment manager bearing an international equity portfolio needs to purchase and sell several pairs of foreign currencies to pay for foreign securities purchases.

Some investment management firms also have more speculative specialist currency overlay operations, which manage clients' currency exposures with the aim of generating profits as well as limiting risk. Whilst the number of this type of specialist firms is quite small, many have a large value of assets under management), and hence can generate large trades.

7. Retail foreign exchange traders

Individual Retail speculative traders constitute a growing segment of this market with the advent of retail foreign exchange platforms, both in size and importance. Currently, they participate indirectly through brokers or banks. Retail brokers, while largely controlled and regulated in the USA by the Commodity Futures Trading Commission and National Futures Association have in the past been subjected to periodic Foreign exchange fraud. To deal with the issue, the NFA and CFTC began (as of 2009) imposing stricter requirements, particularly in relation to the amount of Net Capitalization required of its members. As a result many of the smaller and perhaps questionable brokers are now gone or have moved to countries outside the US. A number of the foreign exchange brokers operate from the UK under Financial Services Authority regulations where foreign exchange trading using margin is part of the wider over-the-counter derivatives trading industry that includes Contract for differences and financial spread betting.

There are two main types of retail FX brokers offering the opportunity for speculative currency trading: brokers and dealers or market makers. Brokers serve as an agent of the customer in the broader FX market, by seeking the best price in the market for a retail order and dealing on behalf of the retail customer. They charge a commission or mark-up in addition to the price obtained in the market. Dealers or market makers, by contrast, typically act as principal in the transaction versus the retail customer, and quote a price they are willing to deal at.

8. Non-bank foreign exchange companies

Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. These are also known as foreign exchange brokers but are distinct in that they do not offer speculative trading but rather currency exchange with payments (i.e., there is usually a physical delivery of currency to a bank account).

It is estimated that in the UK, 14% of currency transfers/payments are made via Foreign Exchange Companies. These companies' selling point is usually that they will offer better exchange rates or cheaper payments than the customer's bank. These companies differ from Money Transfer/Remittance Companies in that they generally offer higher-value services.

2.9.16 Factors Affecting Exchange Rates

Consumer spending is influenced by a number of factors: the price of goods and services, employment, interest rates, government initiatives, and so on. Here are some economic factors you can follow to identify economic trends and their effect on currencies.

1. Interest Rates

Benchmark interest rates from central banks influence the retail rates financial institutions charge customers to borrow money. For instance, if the economy is under-performing, central banks may lower interest rates to make it cheaper to borrow; this often boosts consumer spending, which may help

expand the economy. To slow the rate of inflation in an overheated economy, central banks raise the benchmark so borrowing is more expensive.

Interest rates are of particular concern to investors seeking a balance between yield returns and safety of funds. When interest rates go up, so do yields for assets denominated in that currency; this leads to increased demand by investors and causes an increase in the value of the currency in question. If interest rates go down, this may lead to a flight from that currency to another.

2. *Employment Outlook*

Employment levels have an immediate impact on economic growth. As unemployment increases, consumer spending falls because jobless workers have less money to spend on non-essentials. Those still employed worry for the future and also tend to reduce spending and save more of their income. An increase in unemployment signals a slowdown in the economy and possible devaluation of a country's currency because of declining confidence and lower demand. If demand continues to decline, the currency supply builds and further exchange rate depreciation is likely. One of the most anticipated employment reports is the U.S. Non-Farm Payroll (NFP), a reliable indicator of U.S. employment issued the first Friday of every month.

3. *Economic Growth Expectations*

To meet the needs of a growing population, an economy must expand. However, if growth occurs too rapidly, price increases will outpace wage advances so that even if workers earn more on average, their actual buying power decreases. Most countries target economic growth at a rate of about 2% per year. With higher growth comes higher inflation, and in this situation central banks typically raise interest rates to increase the cost of borrowing in an attempt to slow spending within the economy. A change in interest rates may signal a change in currency rates. Deflation is the opposite of inflation; it occurs during times of recession and is a sign of economic stagnation. Central banks often lower interest rates to boost consumer spending in hopes of reversing this trend.

4. *Trade Balance*

A country's balance of trade is the total value of its exports, minus the total value of its imports. If this number is positive, the country is said to have a favorable balance of trade. If the difference is negative, the country has a trade gap, or trade deficit.

Trade balance impacts supply and demand for a currency. When a country has a trade surplus, demand for its currency increases because foreign buyers must exchange more of their home currency in order to buy its goods. A trade deficit, on the other hand, increases the supply of a country's currency and could lead to devaluation if supply greatly exceeds demand.

5. *Central Bank Actions*

With interest rates in several major economies already very low (and set to stay that way for the time being), central bank and government officials are now resorting to other, less commonly used measures to directly intervene in the market and influence economic growth.

For example, quantitative easing is being used to increase the money supply within an economy. It involves the purchase of government bonds and other assets from financial institutions to provide the banking system with additional liquidity. Quantitative easing is considered a last resort when the more typical response lowering interest rates fails to boost the economy. It comes with some risk: increasing the supply of a currency could result in a devaluation of the currency.

2.9.17 India's exchange rate policy needs a re-look

Following the appreciation of the rupee/dollar exchange rate in early May and the expectation of interest rate hikes, there was some apprehension that the rate hike could result in further appreciation of

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the rupee and could hurt exports. In particular, it would hurt the low value-added exports from small and medium enterprises.

Since the recent recovery in exports happens to be the biggest factor for a sharp rise in industrial output growth, this imminent rate hike was opposed. There were calls for the Reserve Bank of India (RBI) to intervene in the forex market to contain the strengthening of the rupee largely to support the export-sector recovery. There were even suggestions to continue the export incentives that were part of the overall stimulus packages of 2009.

These suggestions are based on the assumption that in India, a weak rupee would encourage exports, and thus, help the overall growth recovery. Many economists have argued for intervention in the forex market, and some Asian economies, notably China, maintain artificially under-valued exchange rates to maintain international competitiveness.

The important question is: Do we have any clear-cut proof that suggests whether exchange rate appreciation (or depreciation) has any significant impact on exports in the post-reform (post-2002/03) period in India? At least based on the recent literature, the answer is no. But the issue is important for policy makers, who may be constraining growth by manipulating the rupee's value in foreign exchange markets. It is a separate issue whether an export-led growth strategy is relevant or not. Of more interest, should exchange rate policy solely aim at export promotion in isolation, disregarding the growth effects of imports?

In a recent research paper we failed to establish the theoretical positive impact of the exchange rate on exports. But we find that changes in the exchange rate strongly affect imports. Additionally, we find a strong uni-directional causation running from imports to exports, and not vice versa.

This is particularly pertinent for Indian policy makers. The impact of the exchange rate on exports appears to pass through imports. Hence, one can argue that exchange rate appreciation indeed could have a positive impact on exports through reduced input costs (and price) and improvements in competitiveness (through cheaper technology imbedded in imports).

Furthermore, evidence suggests that exports and imports of firms are highly correlated, and exports are largely driven by imports, with other control variables such as innovation playing a minimal role. This suggests that Indian firms' competitiveness depends, in part, on low cost inputs imported from abroad. One may remember the most significant trade policy reforms in India resulted in a sharp rise in total trade because of the substantial reduction in import tariffs.

Overall, these results suggest that India's exchange rate policy, which is generally aimed at supporting exports, will need to be re-evaluated.

Exchange rate policy should not aim at export promotion in isolation, instead it should balance both exports and imports growth. This will, in turn, help Indian firms to export more and, more importantly, facilitate firms to achieve a higher level of productivity and efficiency.

The central bank's intervention to control any rupee appreciation may be risky for India's overall long-term recovery process. During the very recent appreciation period, the RBI has done a wise job in not falling into the trap of keeping the rupee weak to help exports. It had rightly focused on controlling inflation by hiking interest rates rather than focusing on exchange rates and exports.

If the RBI intervention is warranted to ward off appreciation following speculative capital inflows, then going for capital controls could be a sensible option. But the 'real' appreciation needs to be allowed to improve economy-wide productivity and competitiveness in the international markets.

India's Exchange Rate Conundrum

The debate on exchange rate policy tends to surface during periods of prolonged and undue appreciation. At its centre is the degree of flexibility that is beneficial for the economy as a whole. The

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issue is not about following a policy of persistent undervaluation, as occurred in China, but to avoid excessive determination by capital account movements; the shift to a flexible exchange rate regime in 1998 being widely accepted. There is a trade-off between exchange rate deployment to attract foreign capital and macroeconomic stabilization vis-à-vis growth promotion through exports. At the current critical juncture of global uncertainty and weak external demand, the exchange rate policy of the Reserve Bank of India (RBI) has shown a pronounced tilt towards exchange rate deployment. This has coincided with a change in leadership at the RBI.

The rebound of the currency from the depths following the September 2008 crisis is notable. Although its bilateral value in relation to the US dollar is now oscillating around its decade average, in real terms the rupee level equals the 2007 peak, when it was boosted by a prolonged surge in capital flows. The broad equivalence of the rupee's real value to its cyclical peak raises concerns about currency drivers and their full reflection in exchange rate movements. Notwithstanding appreciation due to changes in structural factors such as productivity growth, the pace of currency normalization has remained below the 2007 peak, whether measured by the official RBI or Bank for International Settlements' (BIS) real effective exchange rate (REER) indices.

The current macroeconomic configuration is significantly inferior to the boom periods. The high rates of export growth have reversed into a 5 per cent contraction; and indicators such as fiscal balance, current account, savings and investment rates are also down. In particular, the global external environment, including the recovery prospects in advanced economies, is vastly different. Over time, it will be known whether the V-shaped recovery of the rupee represents a new regime of higher currency flexibility. The changing patterns of currency deployment to achieve the following objectives offer insight to the central bank's changing beliefs.

First, the objective of maximizing growth can occur through augmenting the pool of available capital via the finance channel, or by affecting the direct component of aggregate demand: India's net exports. The weight assigned to the former suggests that the foreign savings route is superior. Contrastingly, the evidence suggests that the foreign savings-growth relationship is, at best, nebulous, with recent studies showing a negative association. Further, history abounds with instances of exports as a driver of growth. Thus, it is little wonder that there is serious advocacy of dollar depreciation to help the US economy recover.

The second objective is exchange rate-based stabilization. Between October, 2009 and April, 2010 Real Effective Exchange Rate appreciation has accelerated by an average of 2 per cent per month, alongside increasing inflation and capital inflows. In the not too-distant past (2007-08), the RBI had considered this channel to be fairly ineffective. Its estimated pass-through showed that a 10 per cent appreciation lowered Wholesale Price Index (WPI) inflation by 1.1-1.3 per cent; this would be lower in a slowdown as the exchange rate pass-through to prices weakens when demand conditions are soft and the exchange rate environment is volatile.

Lastly, in an environment of tightening liquidity, there is a preference for exchange rate-based stabilization over increased interest rate defence and higher cash reserve requirements. The exit roll-out and resolute speak of the RBI in October had the markets braced for a 25 basis points cash reserve ratio (CRR) hike in November and December, 2009, followed by a CRR-come-interest rate hike in January, 2010. The CRR increase materialized in January and the interest rate defence in March. The response to appreciation has been less discernable, yet still comprehensive over the same period. The macroeconomic conditions are a key determinant of the decision-making process.

In short, the central bank's motives are not easily determined. The concern is that over the medium term, an excessive reliance on growth from foreign capital could obscure export competitiveness. It may also skew the industrial structure towards non-tradeable goods geared to the domestic market and sheltered from foreign competition. This is not a desirable outcome for India at this stage of development.

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Perhaps, these currency responses in time of crisis serve multiple objectives, such as attracting foreign capital, offsetting negative confidence shifts triggered by rating agencies' downgrades, and providing low-cost funds to firms facing high domestic lending rates. This will be known soon, as capital inflows continue to surge.

Real exchange rate (RER) is considered as barometer of the competitiveness of an economy for international trade. The higher real exchange rate ceteris paribus entails country's exports more expensive and imports relatively cheaper. Thus, affecting the prices of exports and imports, RER movements result in to variation in the allocation of internal production and consumption between traded and non-traded goods. RER assumes utmost importance in developing countries where non-tradable goods constitute a large segment of the goods market and only their prices are flexible as prices of traded goods are largely determined in world market. Therefore, the volatility in the prices of non-traded goods leads to misalignment of RER from its equilibrium level and supposedly, affects adversely the competitiveness and economic growth. In fact, recurrent and large misalignments are linked to lower growth rates and current account deficits in the long run and very frequently with currency and financial crisis. However, it has been debated for some times whether devaluations in RER are contractionary or expansionary. On the one hand, in the conventional textbook model, assuming the Marshall- Lerner condition holds, devaluations are supposed to increase competitiveness, increase production and exports of tradable goods, reduce imports, and thereby improve trade balance, GDP and employment. On the other hand, evidence from many countries reveals that currency appreciation results from accelerated economic development, whereas reverse is true in case of deceleration in economic development. Balassa-Samuelson hypothesis (1963), one of the most important hypotheses with respect to the equilibrium real exchange rate level, postulates that rapid economic growth is accompanied by real exchange rate appreciation because of differential productivity growth between tradable and non-tradable sectors. However, the analysis of the relationship between the level of economic development and real exchange rate, as was suggested by the seminal paper of Balassa-Samuelson, do not find much of the place in the history of research. Nevertheless, open economy macroeconomics has provided with a framework on equilibrium exchange rate level compatible with overall economic equilibrium, as well as policy instruments necessary to correct the possible misalignment.

The findings of various studies on the impact of real exchange rate on economic activities also differ distinctly. Aguirre and Calderon (2005) have found that large overvaluations and undervaluation in RER hurt growth, whereas small undervaluation can boost growth. On the other hand, Diaz-Alejandro (1963), Krugman and Taylor (1978), and Lizondo and Montiel (1989) have found that expansionary effect of real devaluations in tradable sector could be offset by contractionary impact in the non-tradable sector. Edwards (1989) investigated the relationship between real exchange rate misalignment and economic performances and concludes that real exchange rate difference with regards to its equilibrium level has a negative effect. Cottietal (1990) confirms that for some Latin American countries real exchange rate instability has handicapped exportation growth, whereas Asian exportation growth has been for the most part accounted for by real exchange rate stability. According to Sekkat and Varoudakis (1998), the chronic misalignments of real exchange rate are a major factor of the weak economic performances of developing countries. Ghura and Grennes (1993) show on a panel of African countries that real exchange rate misalignment negatively affected economic growth, exports, investment and saving.

Even though, it is not very clear whether net impact of RER devaluations is positive or negative in an economy, several emerging market and developing economies have resisted devaluation in the last many years partly because of concerns that such policy would be contractionary. This view arises from the experience of countries such as Mexico, where real depreciations (increase) of the Peso have consistently been associated with declines in output, while real appreciations (decrease) have been linked to expansion (Villavicencio and Bara, 2006). Furthermore, real exchange rate stability and alignments

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have assumed critical importance in policy formulations particularly in EMEs to improve economic performance during recent years. Real exchange rate misalignment affects economic activity in developing countries mainly due to their dependence on imported capital goods and specialization in commodity exports. Evidence from developing countries is often quoted to support the view that the link between RER misalignment and economic performance is strong.

Given the fact that RER movements and economic growth have got some association positive or negative, the determinants of RER becomes more relevant from policy perspective. In fact, a number of researchers have also pointed out the importance of understanding the main determinants of real exchange rate (Edwards, 1989; Elbadawi and Soto, 1997; Ebadawi, 1994; and Ghura and Grennes, 1993).

Furthermore, this is well established that in most of the cases, especially in emerging market and developing economies, RER does not strictly converge to purchasing power parity (PPP) and even if it does in some cases in the long-run, the rate of convergence remains very slow resulting from underlying macroeconomic fundamentals. This implies that impulse response of RER to movements in macroeconomic fundamentals is very pronounced.

2.9.18 Theoretical Framework of Exchange Rate

In order to specify the nature of the relation to be tested through econometrics techniques, the Balassa-Samuelson hypothesis has been taken as minimal theoretical framework for real exchange rate determination. For this purpose, a small open economy is considered, which is composed of a set of homogeneous firms. The representative firm produces two goods: a tradable commodity for the world market and a non-tradable one for domestic demand. The tradable goods production is presumed to require both capital and labour, while non-tradable goods production uses only labour. The competition is supposed to be perfect and it ensures that production factors are paid at their marginal productivity and at the same time, labour factor mobility ensures equal pay. Whereas labour supply is supposed to be constant and all variables are expressed in terms of tradable goods.

In this study, an extension of the benchmark model is used where the equilibrium real exchange rate is a path upon which an economy maintains both internal and external balances. The equilibrium real exchange rate depends not only on productivities but also on some other real variables. This model used in the present study is basically developed by Montiel (cited by Mkenda 2001). Real Exchange Rate (RER) is defined as the relative price of traded and non-traded goods. That is:

$$RER = q = \frac{PT}{PN} \qquad (1)$$

Where, PT is the world price for traded goods and PN is the price of non-traded ones. This definition is called internal real exchange rate and is appropriate for developing countries where exports are predominately primary products and law of one price holds. The law of one price entails that price of traded goods is equivalent across the countries in common currency. Edwards (1989) mentions that this definition provides a consistent index of the country's tradable sector competitiveness and also influences resources allocation as an increase in q would cause a shift of resources away from the traded to the non traded sector. As per definition (1), the dynamics of the internal relative price of non tradable goods drives the movements in RER as law of one prices holds in case of traded goods and their prices amount equivalent to world prices, especially in emerging market and developing economies.

The definition of real exchange rate could be generalized and written in log form as follows:

$$\log q = \log e + \log p - \log p^* \qquad (2)$$

Where, p and p^* are respectively the national and foreign price indices, and assuming that log p and log p^* can be split into traded and non traded prices as below:

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$$\log p = (1 - \alpha)\log pT + \alpha \log pN \quad (3)$$

$$\log p^* = (1 - \alpha)\log p^*T + \alpha \log p^*N \quad (4)$$

So, substituting (3) and (4), definition (2) could be rewritten as:

$$\log q = \log e\,(\log pT - \log p^*T) + \alpha$$

$$(\log pN - \log pT) - (\log p^*N - \log p^*T) \quad (5)$$

Under the hypothesis that the law of one price is valid for traded goods and foreign prices of traded and non traded goods, (log p*N – log p*T), are given, the first term in equation (5) vanishes and real exchange rate varies only with the domestic relative price of non traded goods. After establishing the validity of prices of non traded goods as the driver of real exchange rate, next step would be to find out the macroeconomic variables, which causes variations in prices of non traded goods. These macroeconomic variables could be identified as determinants of real exchange rate.

$$q_t = \beta' X_t + \varepsilon_t$$

Considering the RER framework detailed in equations (1 to 5), wherein it has been derived that RER is primarily the function of prices of non traded goods and the equilibrium RER is determined by a set of macroeconomic variables (fundaments), the same can be estimated using suitable econometric techniques. For estimation, the relationship between equilibrium RER and fundaments could be defined in the following single equation:

Where Xt are the macroeconomic fundamentals, β the vector of long run coefficients and et an error term. Clark and McDonalds (1999) suggests that sustainable or permanent component of fundamentals can be used to construct the equilibrium RER path. RER stability and its correct alignment are known to be necessary conditions - though not sufficient - for economic development (Williamson, 1997). Considering this argument, numerous studies have been undertaken for estimations of equilibrium real exchange rates in developing countries during the eighties and early nineties. These studies on real exchange rate try to find the determinants of RER and then estimate its long run level. Indeed, once this has been done, one can determine the necessary adjustments to reach equilibrium. Moreover, equilibrium real exchange rate determinants identification enables to forecast its evolution and then to choose the appropriate measures to remedy possible differences and to determine the necessary adjustments with regards to economic policy purposes.

2.9.19 Evolution of Real Exchange Rate in India

The evolution of India's real exchange rate may be viewed in line with the shifts in India's exchange rate policies over the last few decades from a par value system to a basket-peg and further to a managed float exchange rate system. During the period from 1947 to 1971, India followed the par value system of exchange rate. Initially, the rupee's external par value was fixed at 4.15 grains of fine gold. The Reserve Bank maintained the par value of the rupee within the permitted margin of ±1 per cent using pound sterling as the intervention currency. Since the sterling-dollar exchange rate was kept stable by the US monetary authority, the exchange rates of rupee in terms of gold as well as the dollar and other currencies were indirectly kept stable. The devaluation of rupee in September 1949 and June 1966 in terms of gold resulted in the reduction of the par value of rupee in terms of gold to 2.88 and 1.83 grains of fine gold, respectively. The exchange rate of the rupee remained unchanged between 1966 and 1971. Therefore, evolution of real exchange rate during this period was guided mainly by the changes in prices in India as well as its trading partners.

With the breakdown of the Bretton Woods System in 1971 and the floatation of major currencies, the rupee was also linked with pound sterling in December 1971. Since sterling was fixed in terms of US dollar under the Smithsonian Agreement of 1971, the rupee also remained stable against dollar. In order

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to overcome the weaknesses associated with a single currency peg and to ensure stability of the exchange rate, the rupee, with effect from September 1975, was pegged to a basket of currencies. The currency selection and weights assigned were left to the discretion of the Reserve Bank. The currencies included in the basket as well as their relative weights were kept confidential in order to discourage speculation. Indian rupee exchange rate continued to be pegged to the basket of currencies until early 1990s when market determined exchange rate was introduced.

During 1970s, changes in real exchange rate were largely conditioned by the prices in India and its trading partners as real effective exchange rate (REER) depreciated by an average of about 2 per cent while nominal effective exchange rate (NEER) appreciated by an average of 0.4 per cent indicating not much of movements. The nominal exchange rate, however, became more active during 1980s and a larger part of the movements in REER were driven by change in NEER. During this period, REER depreciated averagely by 2.0 per cent lower than an average depreciation of 3.0 per cent witnessed by NEER.

By the late 1980s and the early 1990s, it was recognised that both macroeconomic policy and structural factors had contributed to balance of payments difficulties. Devaluations by India's competitors had aggravated the situation. Although exports had recorded a higher growth during the second half of the 1980s (from about 4.3 per cent of GDP in 1987-88 to about 5.8 per cent of GDP in 1990-91), trade imbalances persisted at around 3 per cent of GDP. This combined with a precipitous fall in invisible receipts in the form of private remittances, travel and tourism earnings in the year 1990-91 led to further widening of current account deficit. The weaknesses in the external sector were accentuated by the Gulf crisis of 1990-91. As a result, the current account deficit widened to 3.2 per cent of GDP in 1990-91 and the capital flows also dried up necessitating the adoption of exceptional corrective steps.

India embarked on stabilization and structural reforms in the early 1990s of which trade policies, exchange rate policies and industrial policies formed an integrated policy framework to improve the overall productivity, competitiveness and efficiency of the economic system, in general, and the external sector, in particular. As a stabilsation measure, a two step downward exchange rate adjustment by 9 per cent and 11 per cent between July 1 and 3, 1991 was resorted to counter the massive drawdown in the foreign exchange reserves, to instill confidence among investors and to improve domestic competitiveness. A two-step adjustment of exchange rate in July 1991 effectively brought to close the regime of a pegged exchange rate. Following the recommendations of the High Level Committee on Balance of Payments (Chairman: Dr. C. Rangarajan) to move towards the market-determined exchange rate, the Liberalized Exchange Rate Management System (LERMS) was put in place in March 1992 initially involving a dual exchange rate system. Under the LERMS, all foreign exchange receipts on current account transactions (exports, remittances, etc.) were required to be surrendered to the Authorized Dealers (ADs) in full. The LERMS was essentially a transitional mechanism and a downward adjustment in the official exchange rate took place in early December 1992 and ultimate convergence of the dual rates was made effective from March 1, 1993, leading to the introduction of a market-determined exchange rate regime. The dual exchange rate system was replaced by a unified exchange rate system in March 1993, whereby all foreign exchange receipts could be converted at market determined exchange rates. On unification of the exchange rates, the nominal exchange rate of the rupee against both the US dollar as also against a basket of currencies got adjusted lower, which almost nullified the impact of the previous inflation differential.

From March 1993 began a new chapter in the evolution of the real exchange rate of India wherein market determined nominal exchange rate of the rupee started conditioning the real exchange rate besides relative prices. REER depreciated by an average of 2.5 per cent during 1990s significantly lower that the average depreciation of 5.2 per cent in NEER indicating that transmission of NEER depreciation to REER was controlled to a large extent by relative higher rate of change in domestic

Notes prices. During 2000s, both REER and NEER witnessed a marginal average depreciation of 0.1 and 0.5 per cent, respectively.

Data Description

The variables used in the present study are real exchange rate (REF) of Indian rupee against USA dollar, differential growth rate between India and USA (DG), government final consumption expenditure as percentage of GDP (GC), foreign exchange assets (FX), terms of trade (TOT) and external openness (OP). Data series are quarterly ranging from Q2 of 1997 to Q2 of 2009. The RER has been calculated taking nominal exchange rate of rupee against US dollar, wholesale price index (WPI) of India and producers' price index (PPI) of USA. We have used bilateral RER of rupee against US dollar keeping in view that India's about 80 per cent of the international trade is invoiced in US dollar. Since nominal exchange rate has been taken as rupees per US dollar, increase/decrease in RER mean depreciation/ appreciation. Due to non-availability of data on sectoral productivity, many studies have used the GDP per capita relative to trading partners as a proxy for the Balassa-Samuelson effect (productivity differential). In the present study, we have used difference in growth rate of India and USA to examine the Balassa- Samulson effect on the RER in the absence of quarterly GDP per capita. Higher growth differential, which has been presumed to be largely driven by traded goods sector, will lead to increase in prices of non-traded goods on account of Balassa-Samuelson effect. Foreign exchange assets have been considered to factor in the impact of capital flows and net foreign assets on the RER. The terms of trade have been derived taking exports as percentage of exports. The external sector openness has been taken in broader term and computed aggregate current and capital account inflows and outflows as percentage of GDP.

Data on India i.e. nominal exchange rate, WPI, government final consumption expenditure (GC), foreign exchange assets (FX), exports and imports, current account inflows & outflows, capital account inflows & outflows, and gross domestic product (GDP) both at current and constant prices are sourced from Handbook of Statistics of Indian Economy, Reserve Bank of India. Producer's price index and GDP growth are taken from International Financial Statistics (IFS), International Monetary Fund (IMF).

2.10 ADJUSTMENT UNDER FLEXIBLE RATE

Under the international gold standard which operated between 1880-1914, the currency in use was made of gold or was convertible into gold at a fixed rate. The central bank of the country was always ready to buy and sell gold at the specified price.

The rate at which the standard money of the country was convertible into gold was called the mint price of gold. This rate was called the mint parity or mint par of exchange because it was based on the mint price of gold. But the actual rate of exchange could vary above and below the mint parity by the cost of shipping gold between the two countries.

To illustrate this, suppose the US had a deficit in its balance of payments with Britain. The difference between the value of imports and exports would have to be paid in gold by US importers because the demand for pounds exceeded the supply of pounds.

But the transshipment of gold involved transportation cost and other handling charges, insurance, etc. Suppose the shipping cost of gold from the US to Britain was 3 cents. So the US importers would have to spend $ 6.03 ($ 6 + .03c) for getting £ 1.

This could be the exchange rate which was the US gold export point or upper specie point. No US importer would pay more than $ 6.03 to obtain £ 1 because he could buy $ 6 worth of gold from the US treasury and ship it to Britain at a cost of 3 cents per ounce.

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Similarly, the exchange rate of the pound could not fall below $ 5.97 in the case of a surplus in the US balance of payments. Thus the exchange rate of $ 5.97to a pound was the US gold import point or lower specie point.

The exchange rate under the gold standard was determined by the forces of demand and supply between the gold points and was prevented from moving outside the gold points by shipments of gold. The main objective was to keep bop in equilibrium.

A deficit or surplus in bop under the gold standard was automatically adjusted by the price-specie-flow mechanism. For instance, a bop deficit of a country meant a fall in its foreign exchange reserves due to an outflow of its gold to a surplus country.

This reduced the country's money supply thereby bringing a fall in the general price level. This, in turn, would increase its exports and reduce its imports. This adjustment process in bop was supplemented by a rise in interest rates as a result of reduction in money supply. This led to the inflow of short-term capital from the surplus country. Thus the inflow of short-term capital from the surplus to the deficit country helped in restoring bop equilibrium.

Automatic Price Adjustment under Flexible Exchange Rates (Price Effect):

Under flexible (or floating) exchange rates, the disequilibrium in the balance of payments is automatically solved by the forces of demand and supply for foreign exchange. An exchange rate is the price of a currency which is determined, like any other commodity, by demand and supply. "The exchange rate varies with varying supply and demand conditions, but it is always possible to find an equilibrium exchange rate which clears the foreign exchange market and creates external equilibrium."

This is automatically achieved by a depreciation (or appreciation) of a country's currency in case of a deficit (or surplus) in its balance of payments. Depreciation (or appreciation) of a currency means that its relative value decreases (or increases). Depreciation has the effect of encouraging exports and discouraging imports.

When exchange depreciation takes place, foreign prices are translated into domestic prices. Suppose the dollar depreciates in relation to the pound. It means that the price of dollar falls in relation to the pound in the foreign exchange market.

This leads to the lowering of the prices of U.S. exports in Britain and raising of the prices of British imports in the U.S. When import prices are higher in the U.S., the Americans will purchase fewer goods from the Britishers. On the other hand, lower prices of U.S. exports will increase their sales to Britain. Thus the U.S. exports will increase and imports diminish, thereby bringing equilibrium in the balance of payments.

It's Assumptions:

This analysis is based on the following assumptions:

1. There are two countries Britain and U.S.
2. Both are on flexible exchange rate system.
3. BOP disequilibrium is automatically adjusted by changes in exchange rates.
4. Prices are flexible in both the countries.
5. There is free trade between the two countries.

Notes

2.11 DIRECT CONTROLS

"Direct controls" refer to any measure of governmental intervention which is directly aimed at increasing or decreasing some particular group of payments or receipts in the balance of payment. As means of improving a country's BOP, the government may resort the:

(i) Complete prohibition of certain luxury imports into that country and

(ii) A general deflationary financial policy designed to reduce the general level of money incomes and prices in that country.

The former is a direct intervention in one small item of the BOP; the latter exerts its influence on the general economic situation. The former is quantitative control which pays no regard to the price mechanism; the latter works through its effect upon relative money prices and money incomes. Import and export duties and subsidies on particular products are certainly examples of direct controls.

2.11.1 Need for Direct Control

Considerations such as these indicate that much more prompt, efficacious, and discriminating limitations on civilian spending may be accomplished by direct governmental prescription priorities, allocations, and rationing than by purely fiscal measures. Administrative decrees may be timed with considerable precision, altered from time to time, and formulated discriminatingly to lead producers and dealers to confine their sales of strategic goods to enterprises possessing duly approved allocation or priority permits.

Direct controls may also be used to reduce greatly the money costs of the war, and to lessen the dangers of inflation. To the extent that the government conscripts soldiers at $50 a month instead of bidding for them in the labor market, and limits the prices it pays for steel, shells, chemicals, and other goods to levels below those which would otherwise prevail, the Treasury's need for funds is reduced. By fixing maximum prices for a wide array of goods, the government prevents speculative and contagious price increases in civilian goods as well. Rationing can powerfully support price controls by reducing effective demand for rationed goods.

Direct controls may be classified roughly into three broad groups. The first includes all methods which apply direct action to channel and stimulate the flow of materials into military production and apply direct compulsion to restrict to prohibit the consumption of scarce materials for uses deemed non-essential in the war. The chief methods, known collectively as the priorities system, are priorities, allocations, and rationing. The second broad group includes all devices which operate directly upon the price mechanism, such as fixing the prices of commodities and services, wage and interest rates, rents, real estate, and capital values. The third group includes restrictions on bank credit and the flotation of new corporate securities, in order that nonessential uses of credit and capital may be prevented from competing with the war program.

2.11.2 Types of Direct Controls

(i) Exchange Control

An important means by which the authorities in a deficit country may attempt to restore equilibrium to the BOP is the restriction of payments to another country by means of exchange control. It aims at equilibrating the demand and supply of foreign balance. The main feature of any system of exchange control is that all incoming payments to the country, representing a receipt of foreign currencies surrendered to government's exchange control authority which In turn allocates and sanctions all payments to foreigners.

Exporters must sell foreign currencies at the official exchange rates to the authority and must dispose of foreign currencies in no other way. Importers must purchase foreign exchange from the

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exchange authority. The purchase and sale of foreign exchange should be made illegal except through the agency of the central authority. Thus the available foreign currency is pooled and rationed to users according to government established criteria of priority.

The chosen official exchange rate may he maintained by always holding the foreign currencies supplied to those wishing to make payments abroad to the amount becoming available from foreign currency earnings. Thus all foreign currencies earned by home nationals must be surrendered to the central bank. The central bank seeks to regulate demand and supply so as to maintain the official exchange rate.

The vesting of a monopoly of foreign exchange dealing in the central monetary authority confers upon that authority formidable powers to manipulate its monopoly in a variety of ways. It can determine scales of priorities according to which foreign exchange will or will not be supplied to importers, it can act as a discriminating monopolist charging low rates of exchange for foreign currencies purchasing essential imports and high rates for those purchasing luxury imports, and it can subsidize exports to certain countries by extending advantageous rates or facilities to those of its national earning especially desirable foreign currencies.

It also involves a cost in terms of elaborate bureaucratic machinery which it necessitates. then with such machinery, it is doubtful if the monopoly of the monetary authorities can ever be made absolute. Leakages may occur. For example, currency notes may be imported and exported through the post or in the pockets of travelers.

The exchange of such notes may then take place in a "Black" currency market, usually at a depreciated rate. Moreover, nationals of the controlling country find ways of avoiding the surrender of all their foreign currency earnings to the controlling authority.

They may hold such earnings abroad as a contingency balance. More likely they will sell them for their own currency at a rate of exchange lower than the official rate. Foreigners who acquire the currency may also sell it in "free" markets outside the country.

Thus, despite the efforts of the controlling country to monopolize dealings in its currency, free markets for it inevitably develop abroad in which the rate is lower than the official rate. Once monopoly of dealing in the currency is established by the monetary authority, numerous variants of exchange control are possible.

The major objectives of the exchange control are:

(i) To correct deficit disequilibrium in the BOP;

(ii) To prevent "capital flights" from the country;

(iii) To permit national economies and their policy architects a "broad freedom of action" not only in times of national emergency but in more normal times as well;

(iv) To insulate the national economy from BOP disequilibrium. Exchange controls provide greatly increased freedom of domestic economic policy;

(v) To facilitate servicing of foreign debt, that is, repayment of foreign loans and interest payments on those loans;

(vi) To maintain stable exchange rate vis-a-vis the currencies of other countries with which the country has important economic and trade relations;

(vii) To over-value domestic currency in relation to foreign exchange in order to obtain cheap imports of essential raw materials and intermediate capital goods. Overvaluation of a currency through exchange control mechanism may also be used to liquidate a country's external debt more cheaply in terms of home currency.

Notes A country may use exchange controls to deliberately under value its currency in order to make its exports cheaper and imports dearer.

Defects:

Exchange controls give enormous powers to the government bureaucrats and politicians, because these are the people who are vested with the authority to issue import licenses and allocate foreign exchange among several competing buyers. Exchange controls, once Introduced, become a source of illegal income and corruption; they are also a source of wielding enormous power, influence and distributing favours.

The politicians and bureaucrats will be unwilling to do away with the exchange controls even when they are no longer needed for the country. Exchange controls then come to stay indefinitely because they could be a perpetual source of income to many politicians and bureaucrats under the table. This is the political economy of exchange controls.

There are three methods of exchange control:

(a) Foreign exchange rate regulation through intervention to prevent appreciation and depreciation of domestic currency;

(b) Exchange restriction; and

(c) Exchange clearing agreements which may be bilateral or multilateral.

(ii) Multiple Exchange Rate Policy

Controls of foreign exchange dealings have to be policed very thoroughly in order to be efficient. To neutralize some of these difficulties the government may try to introduce a system of multiple exchange rates. The policy of multiple exchange rates is also called selective devaluation policy as opposed to general devaluation policy. In the case of general devaluation policy, imports of all goods and services are made expensive, regardless of whether they are essential all nonessential types of imports.

Similarly, general devaluation would make all exports attractive regardless of what the export commodity is multiple exchange rate policy undertakes selective devaluation; it would make essential imports cheaper and non-essential imports expensive; it would make some exports attractive and other exports unattractive. A multiple exchange rate system can discriminate by commodities, by countries or both. Thus, multiple exchange rate policy will have different exchange rates not for only for different goods (imported and exported) but also for different countries with whom the home country is trading.

The advantage of this policy is chat it eliminates the need for employing quantitative restrictions on imports (or exports) and licensing of imports (or exports). To that extent this system can eliminate inefficiency and corruption that usually go with import licensing and quantitative restrictions on imports. This is perhaps the great merit of multiple exchange rates vis-a-vis physical controls on imports.

There are some shortcomings of the system. It introduces complexity and lot of confusion with regard to the number of exchange rates applicable to number of commodities in relation to number of countries. Sometimes they can harm healthy economic development of a country.

The scheduling of imports of essential food stuffs at low exchange rates hampered the development of agricultural sector in Chile. From being a net exporter of agricultural products in 1950s, Chile had become within a decade by late 1940s, a net importer of these products. Similarly in Peru when meat imports were subsidized by low exchange rate policy there was a drastic fall in the home production of meat. Ecuador had a similar experience with wheat flour.

All this is not meant to suggest that multiple exchange rate policy is a great source of danger. What is suggested, however, is that a judicious selection of rates and of commodities imported and exported is very vital in order to make best use of this system of multiple exchange rates.

Exchange control clears the exchange market by rationing supply of exchange among the demanders. This rationing is necessarily discriminating. The system of discrimination may operate by country, by commodity or by mixture of two. It may also incorporate elements of exchange rate fluctuation. Notes

(iii) Fiscal Controls

By "fiscal controls" we mean the use of taxes and subsidies for the purpose of influencing the various items in a country's BOP. The clearest example of such fiscal controls are the imposition of import duties in order to reduce the amount of foreign products purchased and so to decrease the total expenditure in foreign currency upon them, and the imposition of an export duty (whether the foreign elasticity of demand is thought to lie less than unity or of an export subsidy, whether the foreign elasticity of demand is thought to be greater than unity) in order to increase the total receipts of foreign exchange from' the exports concerned.

It should be clear from what has been said above that the "fiscal controls" of import and export duties and subsidies and the "monetary controls" of multiple exchange rates are two different administrative devices for attaining the same economic results.

(iv) Commercial controls-Quantitative restrictions

The total payments or receipts in a country's BOP may be influenced by commercial measures which set a limitation upon the amount (or the value) of a particular product which may be imported III exported. Such a form of direct control is most likely to be applied to "visible" commodity exports and imports, since it can be readily enforced as the commodity in question passes over the country's frontier.

The quantitative import restrictions may limit the volume of the commodity which may be imported into the country or the value of the commodity which may be imported. It may be administered through an "open" or "global" quota (that is, as soon as four motor cars have used the frontier into the country, the country will be closed to the Import of cars for the rest of the year) or it may be administered by the grant of licenses or permits to individual persons to import motor cars that is, persons W, X, Y and Z) are each given a license to import one color car this year and in this latter case the license may or may not they from what source the commodity is to be procured.

The purpose of this quantitative import restriction will be to reduce the value of the country's import of this commodity by a certain amount. This it will certainly do if it takes the form of limiting, in-total value of the class of imports in question. But if it takes the fill in of a limitation on the volume of the commodity which may be Imported it is not certain that it will achieve this objective even if it is lift lively enforced.

When imports are restricted by the fiscal means of an import tax or by the monetary means of the multiple exchange rate, the problem of "margin" between demand and supply price does not arise. But this "margin" automatically accrues to the authorities of the importing country in the form of a revenue from the import duty in the case of the tax and in the form of a profit on the dealings of the exchange control authority in the case of a multiple exchange rate.

But with an exchange control which merely restricts the amount of money which may be spent on the particular imports or with a quantitative import restrictions which limits a particular import by value or by quantity, this problem of the margin between demand and supply price arises.

(v) State Trading

A further refinement of quantitative import control is the state trading monopoly. Under this method, all import of the chosen commodity by the private sector is forbidden, and importantly is done only by a state operated organization. The state plays a direct role in international trade by making its own purchases and sales. It can take the form of a government agency or monopoly operating more or less according to the same principles as a private firm, or it can be a ministry or an organization that completely controls the country's international trade, as in most communist countries.

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Given such control, the state organization is able to regulate the amount of the commodity which is imported to accord with national balance of payments policies. Here again, a margin appears between the importer's supply price and the public's demand price under conditions of scarcity; the margin in this case accrues to the state organization in the form of abnormal profit.

In times of balance of payments pressure, governments often introduce rules about buying home products, so that government officials are urged to use only domestic airlines, embassies to serve only domestic wines etc. Thereby a double standard is used: no tariffs or quantitative restrictions for balance of payments reasons for the private sector, but near autarky as far as government purchases are concerned.

Some products, such as tobacco and alcohol, are frequently handled as government monopolies. In many countries, a tradition of state trading has long existed. State trading expanding greatly during the 1930s when several countries started to engage in direct trading in connection with schemes for supporting domestic industries, especially agriculture.

State trading has also played an important role for many less developed countries in recent years. These countries have often tried to organize market boards for important agricultural products. This has been done with the double intention of rationalizing the internal market structure and helping to improve agricultural technique. Another important objective has been to get some control over the country's foreign trade and to improve the terms of trade by taking advantage of monopoly power.

2.11.3 Controls of Capital Movements

Control of capital movements may be of two categories: the control of short-term and long-term capital movements. In the pursuit of balance-of-payments adjustment from the classic gold standard to the manipulative interest rate policies, short-term money movements have played both a constructive and destructive role. Equalizing short- term capital movements have a useful role to play in a price adjustment (or an income adjustment) system.

They are essential to the smooth achievement of adjustment by those means or to the accommodating of balance of payments to major capital transfers. At the same time, it is evident historically that there is a genus of short- term capital movements which is an inimical to balance-of-payments stability as the equalizing type is necessary. How, for purposes of control are we to distinguish between these two types?

The fact is that the is impossible for purposes of control to distinguish between stabilizing and destabilizing short-term capital, and this difficulty of segregation makes it inevitable that both (or neither) should be controlled. It is possible, of course, to proceed piecemeal and to legislate against particular imports of short-term capital (and thus against their subsequent export) by closing the channels through which they enter.

In the case of long-term capital movements it is easier to distinguish between the desirable and undesirable in the light of balance-of-payments policy. Moreover, it is easier to justify control. A country with a recurrent account cannot be an extensive long-term lender abroad. It is possible that control may be desirable or political and non-economic reasons in order to coordinate monetary and political policies.

A simple control of long-term overseas investment can be imposed by the monetary authority requiring that ail schemes of overseas direct investment and all applications to raise money in its own capital market should be subject to its approval, and that all earnings attributable to foreign investment should be repatriated to the investing country.

Complete control of capital movements, even if desirable, is elusive. In the first place it is not possible to impose it in isolation. To have any chance of success it must involve a control and quantitative examination of all foreign payments, capital and current. Often apparently routine transactions can conceal a capital transfer.

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Sometimes perfectly legal procedures can take on the role of a capital movement and defy control. The so called leads and lags effects in payments for imports and exports is an obvious example. Here immediate payment for imports by home buyers and delayed payments for exports by foreigners is equivalent to a speculative capital outflow in its effect on the country concerned.

To a large trading country suspected of impending devaluation, such a speculative attack, in however innocent a guise, can be fatal. Even if we abandon the idea of imposing and administering a completely "capital tight" exchange control we must still decide whether some form of control on capital movement is desirable. The answer to this depends on how the balance of advantage is deemed to lie.

On the one hand, experience of "hot money" movements in the interwar period and to some extent since 1945 would lead to advocacy of control. On the other hand, if, in order to control capital movements, it is necessary to set up the whole constricting paraphernalia of exchange control on current payments, then that is too high a price to pay and we must accommodate over selves to capital movements as best we can.

2.12 DEVALUATION OF FOREIGN EXCHANGE

Devaluation of Foreign Exchange is an official lowering of the value of a country's currency within a fixed exchange rate system, by which the monetary authority formally sets a new fixed rate with respect to a foreign reference currency or currency basket.

2.13 DEVALUATION FIXED VS. FLEXIBLE EXCHANGE RATE

A central bank maintains a fixed value of its currency by standing ready to buy or sell foreign currency with its own currency at a stated rate; devaluation is a change in this stated rate that renders the foreign currency more expensive in terms of the home currency.

The opposite of devaluation, a change in the fixed rate making the foreign currency less expensive, is called a revaluation.

Related but distinct concepts include inflation, which is a market-determined decline in the value of the currency in terms of goods and services (related to its purchasing power). Altering the face value of a currency without reducing its exchange rate is a redenomination, not a devaluation or revaluation.

Devaluation is most often used in a situation where a currency has a defined value relative to the baseline. Historically, early currencies were typically coins struck from gold or silver by an issuing authority which certified the weight and purity of the precious metal. A government in need of money and short on precious metals might decrease the weight or purity of the coins without any announcement or else decree that the new coins have equal value to the old, thus devaluing the currency.

Later, with the issuing of paper currency as opposed to coins, governments decreed them to be redeemable for gold or silver (a gold standard). Again, a government short on gold or silver might devalue by decreeing a reduction in the currency's redemption value, reducing the value of everyone's holdings.

1949 Devaluation

At the outbreak of World War II, in order to stabilize sterling, the pound was pegged to the US dollar at the rate of $4.03 with exchange controls restricting convertibility volumes. This rate was confirmed by the Bretton Woods agreements of 1944.

After the war ended, US lend-lease funding, which had helped finance the UK's high level of wartime expenditure, was abruptly ended and further US loans were conditional upon progress towards

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sterling becoming fully convertible into US dollars thereby aiding US trade. In July 1947, sterling became convertible but the resultant drain on the UK's reserves of US dollars was such that 7 weeks later, convertibility was suspended, rationing tightened and expenditure cuts made. The exchange rate reverted to its pre-convertibility level, a devaluation being avoided by the new Chancellor the Exchequer Stafford Cripps choking off consumption by increasing taxes in 1947.

By 1949, in part due to a dock strike, the pressure on UK reserves supporting the fixed exchange rate mounted again at a time when Cripps was seriously ill and recuperating in Switzerland. Prime Minister Clement Attlee delegated a decision on how to respond to 3 young ministers, whose jobs included economic portfolios, namely Hugh Gaitskell, Harold Wilson and Douglas Jay, who collectively recommended devaluation. Wilson was despatched with a letter from Attlee to tell Cripps of their decision, expecting that the Chancellor would object, which he did not. On 18 September 1949 the exchange rate was reduced from $4.03 to $2.80 and a series of supporting public expenditure cuts imposed soon afterwards.

1967 Devaluation

When the Labour Government of Prime Minister Harold Wilson came to power in 1964, the new administration inherited an economy in a more parlous state than expected with the estimated balance of payments deficit for the year amounting to £800 million, twice as high as Wilson had predicted during the election campaign. Wilson was opposed to devaluation, in part due to the bad memories of the 1949 devaluation and its negative impact on the Attlee government, but also due to the fact that he had repeatedly asserted that Labour was not the party of devaluation. Devaluation was avoided by a combination of tariffs and raising $3bn from foreign central banks. It has been suggested that, following the crisis, Wilson was so keen to avoid further pressure on sterling that in 1965 he publicly announced the British government would not use force to prevent Rhodesia declaring independence, thereby removing the one major uncertainty holding back the Rhodesian government from doing just that.

By 1966, pressure on sterling was intensifying, due in part to the seamen's strike, and the case for devaluation being articulated in the higher echelons of government, not least by the deputy prime minister George Brown. Wilson resisted and eventually pushed through a series of deflationary measures in lieu of devaluation including a 6 month wage freeze. As a consequence Brown resigned but then changed his mind and remained in the government.

After a brief period in which the deflationary measures relieved sterling, pressure mounted again in 1967 as a consequence of the Six-Day War, the Arab oil embargo and a dock strike. After failing to secure a bail-out from the Americans or the French, a devaluation in the parity rate of £1 from $2.80 to $2.40 was announced at 9:30 p.m. on Saturday 18 November 1967. In a broadcast to the nation the following day, Wilson said, "Devaluation does not mean that the value of the pound in the pocket in the hands of the…British housewife…is cut correspondingly. It does not mean that the pound in the pocket is worth 14% less to us now than it was." This wording is often misquoted as "the pound in your pocket has not been devalued."

Harold Wilson infamously declared that although the British pound would be worth a lower amount abroad it would still be worth as much at home.

Other Economies

China devalued its currency twice within two days by 1.9% and 1% in July 2015. India devalued its currency by 35% in 1977.

Causes

Fixed exchange rates are usually maintained by a combination of legally enforced capital controls and the central bank standing ready to purchase or sell domestic currency in exchange for foreign

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currency. Under fixed exchange rates, persistent capital outflows or trade deficits will involve the central bank using its foreign exchange reserves to buy domestic currency, to prop up demand for the domestic currency and thus to prop up its value. However, this activity is limited by the amount of foreign currency reserves the central bank owns; the prospect of running out of these reserves and having to abandon this process may lead a central bank to devalue its currency in order to stop the foreign currency outflows.

In an open market, the perception that a devaluation is imminent may lead speculators to sell the currency in exchange for the country's foreign reserves, increasing pressure on the issuing country to make an actual devaluation. When speculators buy out all of the foreign reserves, a balance of payments crisis occurs. Economists Paul Krugman and Maurice Obstfeld present a theoretical model in which they state that the balance of payments crisis occurs when the real exchange rate (exchange rate adjusted for relative price differences between countries) is equal to the nominal exchange rate (the stated rate). In practice, the onset of crisis has typically occurred after the real exchange rate has depreciated below the nominal rate. The reason for this is that speculators do not have perfect information; they sometimes find out that a country is low on foreign reserves well after the real exchange rate has fallen. In these circumstances, the currency value will fall very far very rapidly. This is what occurred during the 1994 economic crisis in Mexico.

Effects

After devaluation, the new lower value of the domestic currency will make it less expensive for foreign consumers to obtain local currency with which to buy locally produced export goods, so more exports will be sold, helping domestic businesses. Further, the new exchange rate will make it more expensive for local consumers to obtain foreign currency with which to import foreign goods, hurting domestic consumers and causing less to be imported. The combined effect will be to reduce or eliminate the previous net outflow of foreign currency reserves from the central bank, so if the devaluation has been to a great enough extent the new exchange rate will be maintainable without foreign currency reserves being depleted any further.

Currency Devaluation and Revaluation

Under a fixed exchange rate system, devaluation and revaluation are official changes in the value of a country's currency relative to other currencies. Under a floating exchange rate system, market forces generate changes in the value of the currency, known as currency depreciation or appreciation.

In a fixed exchange rate system, both devaluation and revaluation can be conducted by policymakers, usually motivated by market pressures.

The charter of the International Monetary Fund (IMF) directs policymakers to avoid "manipulating exchange rates...to gain an unfair competitive advantage over other members."

At the Bretton Woods Conference in July 1944, international leaders sought to insure a stable post-war international economic environment by creating a fixed exchange rate system. The United States played a leading role in the new arrangement, with the value of other currencies fixed in relation to the dollar and the value of the dollar fixed in terms of gold $35 an ounce. Following the Bretton Woods agreement, the United States authorities took actions to hold down the growth of foreign central bank dollar reserves to reduce the pressure for conversion of official dollar holdings into gold.

During the mid- to late-1960s, the United States experienced a period of rising inflation. Because currencies could not fluctuate to reflect the shift in relative macroeconomic conditions between the United States and other nations, the system of fixed exchange rates came under pressure.

In 1973, the United States officially ended its adherence to the gold standard. Many other industrialized nations also switched from a system of fixed exchange rates to a system of floating rates.

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Since 1973, exchange rates for most industrialized countries have floated, or fluctuated, according to the supply of and demand for different currencies in international markets. An increase in the value of a currency is known as appreciation, and a decrease as depreciation. Some countries and some groups of countries, however, continue to use fixed exchange rates to help to achieve economic goals, such as price stability.

Under a fixed exchange rate system, only a decision by a country's government or monetary authority can alter the official value of the currency. Governments do, occasionally, take such measures, often in response to unusual market pressures. Devaluation, the deliberate downward adjustment in the official exchange rate, reduces the currency's value; in contrast, a revaluation is an upward change in the currency's value.

For example, suppose a government has set 10 units of its currency equal to one dollar. To devalue, it might announce that from now on 20 of its currency units will be equal to one dollar. This would make its currency half as expensive to Americans, and the U.S. dollar twice as expensive in the devaluing country. To revalue, the government might change the rate from 10 units to one dollar to five units to one dollar; this would make the currency twice as expensive to Americans, and the dollar half as costly at home.

When a government devalues its currency, it is often because the interaction of market forces and policy decisions has made the currency's fixed exchange rate untenable. 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. When a country is unable or unwilling to do so, then it must devalue its currency to a level that it is able and willing to support with its foreign exchange reserves.

A key effect of devaluation is that it makes the domestic currency cheaper relative to other currencies. There are two implications of devaluation. First, devaluation makes the country's exports relatively less expensive for foreigners. Second, the devaluation makes foreign products relatively more expensive for domestic consumers, thus discouraging imports. This may help to increase the country's exports and decrease imports, and may therefore help to reduce the current account deficit.

There are other policy issues that might lead a country to change its fixed exchange rate. For example, rather than implementing unpopular fiscal spending policies, a government might try to use devaluation to boost aggregate demand in the economy in an effort to fight unemployment. Revaluation, which makes a currency more expensive, might be undertaken in an effort to reduce a current account surplus, where exports exceed imports, or to attempt to contain inflationary pressures.

Effects of Devaluation

A significant danger is that by increasing the price of imports and stimulating greater demand for domestic products, devaluation can aggravate inflation. If this happens, the government may have to raise interest rates to control inflation, but at the cost of slower economic growth.

Another risk of devaluation is psychological. To the extent that devaluation is viewed as a sign of economic weakness, the creditworthiness of the nation may be jeopardized. Thus, devaluation may dampen investor confidence in the country's economy and hurt the country's ability to secure foreign investment.

Another possible consequence is a round of successive devaluations. For instance, trading partners may become concerned that devaluation might negatively affect their own export industries. Neighboring countries might devalue their own currencies to offset the effects of their trading partner's devaluation. Such "beggar thy neighbor" policies tend to exacerbate economic difficulties by creating instability in broader financial markets.

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Since the 1930s, various international organizations such as the International Monetary Fund (IMF) have been established to help nations coordinate their trade and foreign exchange policies and thereby avoid successive rounds of devaluation and retaliation. The 1976 revision of Article IV of the IMF charter encourages policymakers to avoid "manipulating exchange rates...to gain an unfair competitive advantage over other members." With this revision, the IMF also set forth each member nation's right to freely choose an exchange rate system.

There may be variety of exchange rate systems (types) in the foreign exchange market. Its two broad types or systems are Fixed Exchange Rate and Flexible Exchange Rate as explained below:

(a) Fixed Exchange Rate System

Fixed exchange rate is the rate which is officially fixed by the government or monetary authority and not determined by market forces. Only a very small deviation from this fixed value is possible. In this system, foreign central banks stand ready to buy and sell their currencies at a fixed price. A typical kind of this system was used under Gold Standard System in which each country committed itself to convert freely its currency into gold at a fixed price.

In other words, value of each currency was defined in terms of gold and, therefore, exchange rate was fixed according to the gold value of currencies that have to be exchanged. This was called mint par value of exchange. Later on Fixed Exchange Rate System prevailed in the world under an agreement reached in July 1994.

(b) Flexible (Floating) Exchange Rate System

The system of exchange rate in which rate of exchange is determined by forces of demand and supply of foreign exchange market is called Flexible Exchange Rate System. Here, value of currency is allowed to fluctuate or adjust freely according to change in demand and supply of foreign exchange. There is no official intervention in foreign exchange market. Under this system, the central bank, without intervention, allows the exchange rate to adjust so as to equate the supply and demand for foreign currency In India, it is flexible exchange rate which is being determined. The foreign exchange market is busy at all times by changes in the exchange rate.

2.14 SUMMARY

Monetary System is the set of mechanisms by which a government provides money (cash) in a country's economy. It usually consists of a mint, central bank, and commercial banks. This is made up of precious metals or other commodities that have intrinsic value. The monetary system uses the commodity physically in terms of currency.

Monetary System is defined as a set of policies, frameworks, and institutions by which the government creates money in an economy. Such institutions include the mint, the central bank, treasury and other financial institutions. There are three common types of monetary systems – commodity money, commodity-based money and fiat money.

Monetary system is another important instrument with which objectives of macroeconomic policy can be achieved. It is worth noting that it is the Central Bank of a country which formulates and implements the monetary policy in a country. In some countries such as India the Central Bank (the Reserve Bank is the Central Bank of India) works on behalf of the Government and acts according to its directions and broad guidelines.

Monetary Theory is a set of ideas about how monetary policy should be conducted within an economy. Monetary theory suggests that different monetary policies can benefit nations depending on their unique set of resources and limitations. It is based on core ideas about how factors like the size of

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the money supply, price levels and benchmark interest rates affect the economy. Economists and central banking authorities are typically those most involved with creating and executing monetary policy.

According to Business Dictionary, "Monetary system is the set of institutions by which a government provides money in a country's economy. Modern monetary systems usually consist of mints, central banks and commercial banks".

Price Stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favourable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

International Adjustment is the use of mechanisms by a central bank to influence a home currency's exchange rate. An adjustment is specifically made if the exchange rate is not pegged to another currency, meaning that the currency is valued according to a floating exchange rate. Because the central bank intervenes in the home currency's exchange rate to reduce short-term fluctuations, this is considered a managed floating exchange rate.

Adjustment as an achievement means how effectively an individual could perform his duties in different circumstances. Business, military education and other social activities need efficient and well-adjusted men for the progress and wellbeing of the nation. If we interpret adjustment as achievement then we will have to set the criteria to judge the quality of adjustment.

Adjustment as a process is of major importance for psychologists, teachers and parents. To analyze the process we should study the development of an individual longitudinally from his birth onwards. The child, at the time of his birth is absolutely dependent on others for the satisfaction of his needs, but gradually with age he learns to control his needs. His adjustment largely depends on his interaction with the external environment in which he lives. When the child is born, the world for him is a big buzzing, blooming confusion. He cannot differentiate among the various objects of his environment but as he matures he comes to learn to articulate the details of his environment through the process of sensation, perception, and conception.

When a relationship between an individual and his environment is according to established norms then that relationship is considered as normal adjustment. A child who obey his parents, who is not unduly stubborn; who studies regularly and has neat habit is considered adjusted.

Abnormal Adjustment means problem behavior or popular speaking maladjustment. Maladjustment takes place when the relationship between an individual and his environment is not according to established standards or norms. A delinquent child adjusts with his environment but he is a maladjusted child because he is violating certain moral codes.

An adjustment mechanism may be defined as "any habitual method of overcoming blocks, reaching goals, satisfying motives, relieving frustrations and maintains equilibrium". Adjustment mechanism is a device by which an individual reduces his tensions or anxiety in order to adjust himself properly with the environment. It helps him to regain his mental health. To solve his problems or to meet conflicting situations a child's uses certain self-adjective, self-defensive approaches which may protect him from his frustactive situations. These are called defense mechanism.

Foreign exchange rate is the conversion rate of one currency into another. This rate depends on the local demand for foreign currencies and their local supply, country's trade balance, strength of its economy, and other such factors.

Foreign exchange rate refers to an exchange rate between two currencies at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in terms of another currency. Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous 24 hours a day except weekends.

Globalization of the world economy is a reality that makes opening up of the capital account and integration with global economy an unavoidable process. Today capital account liberalization is not a choice. The capital account liberalization primarily aims at liberalizing controls that hinder the international integration and diversification of domestic savings in a portfolio of home assets and foreign assets and allows agents to reap the advantages of diversification of assets in the financial and real sector. However, the benefits of capital mobility come with certain risks which should be categorized and managed through a combination of administrative measures, gradual opening up of prudential restrictions and safeguards to contain these risks.

Spot rate of exchange is the rate at which foreign exchange is made available on the spot. It is also known as cable rate or telegraphic transfer rate because at this rate cable or telegraphic sale and purchase of foreign exchange can be arranged immediately. Spot rate is the day-to-day rate of exchange.

Forward rate of exchange is the rate at which the future contract for foreign currency is made. The forward exchange rate is settled now but the actual sale and purchase of foreign exchange occurs in future. The forward rate is quoted at a premium or discount over the spot rate.

Long rate of exchange is the rate at which a bank purchases or sells foreign currency bills which are payable at a fixed future date. The basis of the long rate of exchange is the interest on the delayed payment. The long rate of exchange is calculated by adding premium to the spot rate of exchange in the case of credit purchase of foreign exchange and deducting premium from the spot rate in the case of credit sale.

Fixed or pegged exchange rate refers to the system in which the rate of exchange of a currency is fixed or pegged in terms of gold or another currency. A fixed exchange rate system maintains fixed exchange rates between currencies; those rates are referred to as official parity. A nation with fixed exchange rates must enforce those rates. An early form of fixed exchange rates was to specify the value of a nation's currency in terms of gold (the "gold standard").

Flexible or floating exchange rate refers to the system in which the rate of exchange is determined by the forces of demand and supply in the foreign exchange market. It is free to fluctuate according to the changes in the demand and supply of foreign currency.

Forward Rate Agreement is an over-the-counter contract between parties that determines the rate of interest, or the currency exchange rate, to be paid or received on an obligation beginning at a future start date. The contract will determine the rates to be used along with the termination date and notional value. On this type of agreement, it is only the differential that is paid on the notional amount of the contract.

Foreign exchange fixing is the daily monetary exchange rate fixed by the national bank of each country. The idea is that central banks use the fixing time and exchange rate to evaluate behavior of their currency. Fixing exchange rates reflects the real value of equilibrium in the market. Banks, dealers and traders use fixing rates as a trend indicator.

The price of one country's currency in terms of another country is called the exchange rate. When the currency of one country depreciates, there will be a corresponding appreciation of value in another country's currency. Depreciation occurs when it takes more currency to purchase the currency of another country. Appreciation is just the opposite; the currency is able to purchase more units of the other country's currency. Since most currencies are valued according to the marketplace, there are constant changes to exchange rates. This gives rise to exchange rate risk.

The management of the exchange rate is possible only if the government pursues a monetary-fiscal policy mix which is consistent with its exchange rate targets. In this paper with uncertainty concerning the length of individual life the real consequences of exchange rate management depend on the precise time pattern of the accompanying policies.

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The debate on exchange rate policy tends to surface during periods of prolonged and undue appreciation. At its centre is the degree of flexibility that is beneficial for the economy as a whole. The issue is not about following a policy of persistent undervaluation, as occurred in China, but to avoid excessive determination by capital account movements; the shift to a flexible exchange rate regime in 1998 being widely accepted. There is a trade-off between exchange rate deployment to attract foreign capital and macroeconomic stabilization vis-à-vis growth promotion through exports.

"Direct controls" refer to any measure of governmental intervention which is directly aimed at increasing or decreasing some particular group of payments or receipts in the balance of payment.

Considerations such as these indicate that much more prompt, efficacious, and discriminating limitations on civilian spending may be accomplished by direct governmental prescription priorities, allocations, and rationing than by purely fiscal measures.

Control of capital movements may be of two categories: the control of short-term and long-term capital movements. In the pursuit of balance-of-payments adjustment from the classic gold standard to the manipulative interest rate policies, short-term money movements have played both a constructive and destructive role. Equalizing short- term capital movements have a useful role to play in a price adjustment (or an income adjustment) system.

2.15 SELF-ASSESSMENT QUESTIONS

1. Give the meaning of Monetary System. Discuss importance of Monetary System.
2. Explain various types of Monetary Systems.
3. Discuss Ricardo's Monetary Theory.
4. Explain Wicksell's Monetary Theory.
5. What is International Adjustment? Discuss features of International Adjustment.
6. What is Adjustment Mechanism? Explain characteristics of Adjustment Mechanism.
7. Discuss importance of foreign exchange rate.
8. What is Fixed Exchange Rate? Explain objectives of the foreign exchange rate.
9. Explain determinants of Foreign Exchange Rates.
10. Discuss types of Foreign Exchange Rates.
11. Give the meaning of Exchange Rate Management. Explain elements of Exchange Rate Management.
12. What is Direct Control? Discuss need for Direct Control.
13. Explain various types of Direct Controls.
14. What is Devaluation of Foreign Exchange and Flexible Exchange Rate? Discuss in details.

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Chapter

3

THE INTERNATIONAL MONETARY SYSTEM

Objectives

The objectives of this lesson are to:

- The international Monetary System
- Gold Standard as an International Standard
- Working Breakdown Experience of the World after its Breakdown
- Efforts to build a World Monetary System
- The Keynes and White Plans
- The Britain Woods System

Structure:

3.1 The International Monetary System

3.2 History of modern global monetary orders

3.3 Gold Standard as an International Standard

3.4 The Features of the Gold Standard and the Gold Exchange Standard

3.5 The Rise of the Gold Standard

3.6 The Fall of the Gold Standard

3.7 Working breakdown experience of the world after its breakdown

3.8 Bretton Woods System and its Breakdown

3.9 Breakdown of the Bretton Woods System

3.10 Monetary System after the Collapse of Bretton Woods System

3.11 World Monetary System

3.12 Efforts to build a World Monetary System

3.13 The Keynes and white plans

3.14 The Britain Woods system

3.15 The failures managed flexibility in action draw backs of the state

3.16 Role of the IMF and World Bank

3.17 Summary

3.18 Self-Assessment Questions

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3.1 THE INTERNATIONAL MONETARY SYSTEM

An international monetary system is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross border investment and generally the reallocation of capital between nation states. It should provide means of payment acceptable to buyers and sellers of different nationalities, including deferred payment. To operate successfully, it needs to inspire confidence, to provide sufficient liquidity for fluctuating levels of trade, and to provide means by which global imbalances can be corrected. The system can grow organically as the collective result of numerous individual agreements between international economic factors spread over several decades. Alternatively, it can arise from a single architectural vision, as happened at Bretton Woods in 1944.

Throughout history, precious metals such as gold and silver have been used for trade, sometimes in the form of bullion, and from early history the coins of various issuers – generally kingdoms and empires – have been traded. The earliest known records of pre-coinage use of precious metals for monetary exchange are from Mesopotamia and Egypt, dating from the third millennium BC. Early money took many forms, apart from bullion; for instance bronze spade money which became common in Zhou dynasty China in the late 7th century BC. At that time, forms of money were also developed in Lydia in Asia Minor, from where its use spread to nearby Greek cities and later to many other places.

Sometimes formal monetary systems have been imposed by regional rulers. For example, scholars have tentatively suggested that the Roman king Servius Tullius created a primitive monetary system in the early history of Rome. Tullius reigned in the sixth century BC - several centuries before Rome is believed to have developed a formal coinage system.

As with bullion, early use of coinage is believed to have been generally the preserve of the elite. But by about the 4th century BC coins were widely used in Greek cities. They were generally supported by the city state authorities, who endeavoured to ensure they retained their values regardless of fluctuations in the availability of whatever base or precious metals they were made from. From Greece the use of coins spread slowly westwards throughout Europe, and eastwards to India. Coins were in use in India from about 400 BC; initially they played a greater role in religion than in trade, but by the 2nd century they had become central to commercial transactions. Monetary systems that were developed in India were so successful that they spread through parts of Asia well into the Middle Ages.

As a variety of coins became common within a region, they were exchanged by money changers, the predecessors of today's foreign exchange market, as mentioned in the Biblical story of Jesus and the money changers. In Venice and the other Italian city states of the early Middle Ages, money changers would often have to struggle to perform calculations involving six or more currencies. This partly led to Fibonacci writing his Liber Abaci which popularised the use of Indo-Arabic numerals, which displaced the more difficult Roman numerals then in use by western merchants.

When a given nation or empire has achieved regional hegemony, its currency has been a basis for international trade, and hence for a de facto monetary system. In the West – Europe and the Middle East – an early such coin was the Persian daric. This was succeeded by Roman currency of the Roman Empire, such as the denarius, then the Gold Dinar of the Ottoman Empire, and later – from the 16th to 20th centuries, during the Age of Imperialism – by the currency of European colonial powers: the Spanish dollar, the Dutch guilder, the French franc and the British pound sterling; at times one currency has been pre-eminent, at times no one dominated. With the growth of American power, the US dollar became the basis for the international monetary system, formalised in the Bretton Woods agreement that established the post–World War II monetary order, with fixed exchange rates of other currencies to the dollar, and convertibility of the dollar into gold. The Bretton Woods system broke down, culminating in the Nixon shock of 1971, ending convertibility; but the US dollar has remained the de facto basis of the world monetary system, though no longer de jure[dubious – discuss], with various European currencies

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and the Japanese yen also being prominent in foreign exchange markets. Since the formation of the Euro, the Euro has also gained use as a reserve currency and a medium of transactions, though the dollar has remained the most important currency.

A dominant currency may be used directly or indirectly by other nations: for example, English kings minted the gold mancus, presumably to function as dinars to exchange with Islamic Spain; colonial powers sometimes minted coins that resembled those already used in a distant territory; and more recently, a number of nations have used the US dollar as their local currency, a custom called dollarization.

Until the 19th century, the global monetary system was loosely linked at best, with Europe, the Americas, India and China (among others) having largely separate economies, and hence monetary systems were regional. European colonization of the Americas, starting with the Spanish empire, led to the integration of American and European economies and monetary systems, and European colonization of Asia led to the dominance of European currencies, notably the British pound sterling in the 19th century, succeeded by the US dollar in the 20th century. Some, such as Michael Hudson, foresee the decline of a single base for the global monetary system, and the emergence instead of regional trade blocs; he cites the emergence of the Euro as an example. It was in the later half of the 19th century that a monetary system with close to universal global participation emerged, based on the gold standard.

3.2 HISTORY OF MODERN GLOBAL MONETARY ORDERS

The pre WWI financial order: 1816–1919

The gold standard widely adopted in this era rested on the conversion of paper notes into pre-set quantities of gold. From the 1816 to the outbreak of World War I in 1914, the world benefited from a well-integrated financial order, sometimes known as the "first age of globalization". There were monetary unions which enabled member countries to accept each other's currencies as legal tender. Such unions included the Latin Monetary Union (Belgium, Italy, Switzerland, France) and the Scandinavian monetary union (Denmark, Norway and Sweden). In the absence of shared membership of a union, transactions were facilitated by widespread participation in the gold standard, by both independent nations and their colonies. Great Britain was at the time the world's pre-eminent financial, imperial, and industrial power, ruling more of the world and exporting more capital as a percentage of her national income than any other creditor nation has since.

While capital controls comparable to the Bretton Woods system were not in place, damaging capital flows were far less common than they were to be in the post 1971 era. In fact Great Britain's capital exports helped to correct global imbalances as they tended to be counter-cyclical, rising when Britain's economy went into recession, thus compensating other states for income lost from export of goods. Accordingly, this era saw mostly steady growth and a relatively low level of financial crises. In contrast to the Bretton Woods system, the pre–World War I financial order was not created at a single high level conference; rather it evolved organically in a series of discrete steps. The Gilded Age, a time of especially rapid development in North America, falls into this period.

Between the World Wars: 1919–1939

This era saw periods of worldwide economic hardship. The image is Dorothea Lange's Migrant Mother Depiction of destitute pea-pickers in California, taken in March 1936.

The years between the world wars have been described as a period of "de-globalisation", as both international trade and capital flows shrank compared to the period before World War I. During World War I, countries had abandoned the gold standard. Except for the United States, they later returned to it only briefly. By the early 1930s, the prevailing order was essentially a fragmented system of floating exchange rates. In this era, the experience of Great Britain and others was that the gold standard ran

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counter to the need to retain domestic policy autonomy. To protect their reserves of gold, countries would sometimes need to raise interest rates and generally follow a deflationary policy. The greatest need for this could arise in a downturn, just when leaders would have preferred to lower rates to encourage growth. Economist Nicholas Davenport had even argued that the wish to return Britain to the gold standard "sprang from a sadistic desire by the Bankers to inflict pain on the British working class."

By the end of World War I, Great Britain was heavily indebted to the United States, allowing the USA to largely displace it as the world's foremost financial power. The United States, however, was reluctant to assume Great Britain's leadership role, partly due to isolationist influences and a focus on domestic concerns. In contrast to Great Britain in the previous era, capital exports from the US were not countercyclical. They expanded rapidly with the United States' economic growth in the 1920s until 1928, but then almost completely halted as the US economy began slowing in that year. As the Great Depression intensified in 1930, financial institutions were hit hard along with trade; in 1930 alone, 1345 US banks collapsed. During the 1930s, the United States raised trade barriers, refused to act as an international lender of last resort, and refused calls to cancel war debts, all of which further aggravated economic hardship for other countries. According to economist John Maynard Keynes, another factor contributing to the turbulent economic performance of this era was the insistence of French premier Clemenceau that Germany pay war reparations at too high a level, which Keynes described in his book The Economic Consequences of the Peace.

The Bretton Woods Era: 1944–1973

British and American policy makers began to plan the post-war international monetary system in the early 1940s. The objective was to create an order that combined the benefits of an integrated and relatively liberal international system with the freedom for governments to pursue domestic policies aimed at promoting full employment and social wellbeing. The principal architects of the new system, John Maynard Keynes and Harry Dexter White, created a plan which was endorsed by the 42 countries attending the 1944 Bretton Woods conference, formally known as the United Nations Monetary and Financial Conference. The plan involved nations agreeing to a system of fixed but adjustable exchange rates so that the currencies were pegged against the dollar, with the dollar itself convertible into gold. So in effect this was a gold – dollar exchange standard. There were a number of improvements on the old gold standard. Two international institutions, the International Monetary Fund (IMF) and the World Bank were created. A key part of their function was to replace private finance as a more reliable source of lending for investment projects in developing states. At the time the soon to be defeated powers of Germany and Japan were envisaged as states soon to be in need of such development, and there was a desire from both the US and Britain not to see the defeated powers saddled with punitive sanctions that would inflict lasting pain on future generations. The new exchange rate system allowed countries facing economic hardship to devalue their currencies by up to 10% against the dollar (more if approved by the IMF) – thus they would not be forced to undergo deflation to stay in the gold standard. A system of capital controls was introduced to protect countries from the damaging effects of capital flight and to allow countries to pursue independent macro-economic policies while still welcoming flows intended for productive investment. Keynes had argued against the dollar having such a central role in the monetary system, and suggested an international currency called bancor be used instead, but he was overruled by the Americans. Towards the end of the Bretton Woods era, the central role of the dollar became a problem as international demand eventually forced the US to run a persistent trade deficit, which undermined confidence in the dollar. This, together with the emergence of a parallel market for gold in which the price soared above the official US mandated price, led to speculators running down the US gold reserves. Even when convertibility was restricted to nations only, some, notably France, continued building up hoards of gold at the expense of the US. Eventually these pressures caused President Nixon

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to end all convertibility into gold on 15 August 1973. This event marked the effective end of the Bretton Woods system; attempts were made to find other mechanisms to preserve the fixed exchange rates over the next few years, but they were not successful, resulting in a system of floating exchange rates.

The post Bretton Woods system: 1973–present

An alternative name for the post Bretton Woods system is the Washington Consensus. While the name was coined in 1989, the associated economic system came into effect years earlier: according to economic historian Lord Skidelsky the Washington Consensus is generally seen as spanning 1980–2009 (the latter half of the 1970s being a transitional period). The transition away from Bretton Woods was marked by a switch from a state led to a market led system. The Bretton Wood system is considered by economic historians to have broken down in the 1970s: crucial events being Nixon suspending the dollar's convertibility into gold in 1973, the United States' abandonment of capital controls in 1974, and the UK's ending of capital controls in 1979 which was swiftly copied by most other major economies.

In some parts of the developing world, liberalisation brought significant benefits for large sections of the population – most prominently with Deng Xiaoping's reforms in China since 1978 and the liberalisation of India after its 1991 crisis.

Generally the industrial nations experienced much slower growth and higher unemployment than in the previous era, and according to Professor Gordon Fletcher in retrospect the 1950s and 60s when the Bretton Woods system was operating came to be seen as a golden age. Financial crises have been more intense and have increased in frequency by about 300% – with the damaging effects prior to 2008 being chiefly felt in the emerging economies. On the positive side, at least until 2008 investors have frequently achieved very high rates of return, with salaries and bonuses in the financial sector reaching record levels.

From 2004, economists such as Michael P. Dooley, Peter M. Garber, and David Folkerts-Landau began writing papers describing the emergence of a new international system involving an interdependency between states with generally high savings in Asia lending and exporting to western states with generally high spending. Similar to the original Bretton Woods, this included Asian currencies being pegged to the dollar, though this time by the unilateral intervention of Asian governments in the currency market to stop their currencies appreciating. The developing world as a whole stopped running current account deficits in 1999 – widely seen as a response to unsympathetic treatment following the 1997 Asian Financial Crisis. The most striking example of east-west interdependency is the relationship between China and America, which Niall Ferguson calls Chimerica. From 2004, This supposed "New Bretton Woods", as a "fiction", and called for the elimination of the structural imbalances that underlie it, viz, the chronic US current account deficit.

However, since at least 2007 those authors have also called for a new de jure system: for key international financial institutions like the IMF and World Bank to be revamped to meet the demands of the current age and between 2008 and mid-2009 the term New Bretton Woods was increasingly used in the latter sense. By late 2009, with less emphasis on structural reform to the international monetary system and more attention being paid to issues such as re-balancing the world economy.

Since 2011, Sanjeev Sanyal, a colleague of Dooley, Garber and Folkerts-Landau has taken the framework a step further to argue that periods of global economic expansions are almost always underpinned by symbiotic imbalances. Such imbalances cause distortions but are an inevitable part of expanding economic ecosystems. Thus, he argues that the next round of economic growth will again be underpinned by a return to global imbalances, probably with China supplying capital and the US again running deficits to absorb it. He names this relationship Bretton Woods III.

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G-20 leaders at Summit on Financial Markets and the World Economy

Leading financial journalist Martin Wolf has reported that all financial crises since 1971 have been preceded by large capital inflows into affected regions. While ever since the seventies there have been numerous calls from the global justice movement for a revamped international system to tackle the problem of unfettered capital flows, it was not until late 2008 that this idea began to receive substantial support from leading politicians. On September 26, 2008, French President Nicolas Sarkozy, then also the President of the European Union, said, "We must rethink the financial system from scratch, as at Bretton Woods."

March 2009 saw Gordon Brown continuing to advocate for reform and the granting of extended powers to international financial institutions like the IMF at the April G20 summit in London, and was said to have president Obama's support. Also during March 2009, in a speech entitled Reform the International Monetary System, Zhou Xiaochuan, the governor of the People's Bank of China came out in favour of Keynes's idea of a centrally managed global reserve currency. Dr Zhou argued that it was unfortunate that part of the reason for the Bretton Woods system breaking down was the failure to adopt Keynes's bancor. Dr Zhou said that national currencies were unsuitable for use as global reserve currencies as a result of the Triffin dilemma – the difficulty faced by reserve currency issuers in trying to simultaneously achieve their domestic monetary policy goals and meet other countries' demand for reserve currency. Dr Zhou proposed a gradual move towards increased use of IMF special drawing rights (SDRs) as a centrally managed global reserve currency His proposal attracted much international attention. In a November 2009 article published in Foreign Affairs magazine, economist C. Fred Bergsten argued that Dr Zhou's suggestion or a similar change to the international monetary system would be in the United States' best interests as well as the rest of the world's.

Leaders meeting in April at the 2009 G-20 London summit agreed to allow $250 Billion of SDRs to be created by the IMF, to be distributed to all IMF members according to each countries voting rights. In the aftermath of the summit, Gordon Brown declared "the Washington Consensus is over". However, in a book published during September 2009, Professor Robert Skidelsky, an international expert on Keynesianism, argued it was still too early to say whether a new international monetary system was emerging.

On Jan 27, in his opening address to the 2010 World Economic Forum in Davos, President Sarkozy repeated his call for a new Bretton Woods, and was met by wild applause by a sizeable proportion of the audience.

In December 2011, the Bank of England published a paper arguing for reform, saying that the current International monetary system has performed poorly compared to the Bretton Woods system.

In August 2012 in an International Herald Tribune op-ed, Harvard University professor and director of the Committee on Capital Markets Regulation Hal S. Scott called for a global response to the Euro-zone crisis. He wrote that two failures to address European problems around German power had led to world wars in the 20th century and that the current crisis was also beyond the capacity of Europe, with Germany again at the center, to solve on their own. Accepting that leadership transitions were underway in both China and America, Scott called on all concerned with Japan included with China and America to begin organizing a global restructuring through the International Monetary Fund with possibly a Bretton Woods II conference as part of the process. MarketWatch commentator Darrell Delamaide endorsed Scott's idea but concluded "unfortunately it's not likely to happen". He added first the example of the failure of Europe to address successfully the breakup of Yugoslavia without outside assistance as a reason for his endorsement. But he found U.S. presidential and Treasury Department leadership and IMF leadership dramatically lacking in the capacity to mount an initiative such as Scott proposed.

In the gold specie standard the monetary unit is associated with the value of circulating gold coins, or the monetary unit has the value of a certain circulating gold coin, but other coins may be made of less valuable metal.

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The gold bullion standard is a system in which gold coins do not circulate, but the authorities agree to sell gold bullion on demand at a fixed price in exchange for the circulating currency.

The gold exchange standard usually does not involve the circulation of gold coins. The main feature of the gold exchange standard is that the government guarantees a fixed exchange rate to the currency of another country that uses a gold standard (specie or bullion), regardless of what type of notes or coins are used as a means of exchange. This creates a de facto gold standard, where the value of the means of exchange has a fixed external value in terms of gold that is independent of the inherent value of the means of exchange itself.

Most nations abandoned the gold standard as the basis of their monetary systems at some point in the 20th century, although many hold substantial gold reserves. A survey of leading American economists showed that they unanimously reject that a return to the gold standard would benefit the average American.

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All references to "dollars" in this section refer to the United States dollar, unless otherwise stated.

3.3 GOLD STANDARD AS AN INTERNATIONAL STANDARD

The gold standard is a monetary system where a country's currency or paper money has a value directly linked to gold. With the gold standard, countries agreed to convert paper money into a fixed amount of gold. A country that uses the gold standard sets a fixed price for gold and buys and sells gold at that price. That fixed price is used to determine the value of the currency. For example, if the U.S. sets the price of gold at $500 an ounce, the value of the dollar would be 1/500th of an ounce of gold.

The gold standard is not currently used by any government. Britain stopped using the gold standard in 1931 and the U.S. followed suit in 1933 and abandoned the remnants of the system in 1971. The gold standard was completely replaced by fiat money, a term to describe currency that is used because of a government's order, or fiat, that the currency must be accepted as a means of payment. In the U.S., for instance the dollar is fiat money, and for Nigeria, it is the naira.

The appeal of a gold standard is that it arrests control of the issuance of money out of the hands of imperfect human beings. With the physical quantity of gold acting as a limit to that issuance, a society can follow a simple rule to avoid the evils of inflation. The goal of monetary policy is not just to prevent inflation, but also deflation, and to help promote a stable monetary environment in which full employment can be achieved. A brief history of the U.S. gold standard is enough to show that when such a simple rule is adopted, inflation can be avoided, but strict adherence to that rule can create economic instability, if not political unrest.

3.4 THE FEATURES OF THE GOLD STANDARD AND THE GOLD EXCHANGE STANDARD

The first world monetary system was the Paris monetary system. It was legalized by international agreement at a conference in Paris in 1867. The base of the monetary system was a gold-coin (gold) standard: gold was recognized as the only form of world money. According to the gold content of currencies, their gold parities were established (ratio of currency units of different countries on their gold content). In other words, according to the system of "gold standard", all national currencies had the fixed content of gold. For example, from 1821 one pound sterling had a gold content equal to 7.322385

Notes grams of gold, 1 Deutschemark -0.385422 grams of gold (from 1873). The exchange rate was determined by the ratio of the gold content of currencies.

The gold standard was the system of hard currency, as it was based on the direct connection with gold. According to this system:

- Currencies are freely convertible into gold;
- Gold bullion freely exchanged for coins;
- Gold freely exported, imported and sold in the international markets, that is gold markets and currency markets were interdependent;
- All countries maintained strict correlation between their gold reserves and the amount of money in circulation.

It was the regime of freely floating exchange rates between gold points (gold points were equivalent to the parity of the national currency with the addition or subtraction of transport and insurance costs due to the material transfer of gold). Currency control authorities pursued a policy of regulation which ensures stability of the currency and the balance-of-payments equilibrium.

International transactions of gold-coin standard were carried out mainly by using a bill of exchange which is issued in the national currency, mostly in the English one. Gold was used only for the payment of the passive balance of payments of the country. At the end of 19th century, the part of gold in the money supply significantly decreased and credit money of exchange gradually force the gold out of circulation. At the beginning of World War I, the gold standard collapsed because of the impossibility to respond to expanded scopes of both economic relations and conditions of regulating of the market economy.

In 1922, the second world currency system (the Genoese monetary system) was legally formalized due to the interstate agreement at the Genoa conference. It was based on a gold-exchange standard, which was based on gold and on the leading currencies convertible into gold. There are following characteristics of the Genoese monetary system:

- Gold and exchange instruments (paper exchange) were in the basis of the system. The monetary systems of 30 countries were based on the gold exchange standard. As an international payment and reserve funds were used national credit money. None of currency had no the status of reserve currency in the inter-war period;
- Gold parities were saved. Currency conversion into gold was carried out through foreign currency;
- Freely fluctuating of exchange rates;
- The exchange regulation was in the form of international conferences and meetings.

From 1922 to 1928 the relative exchange rate stabilization was observed in the world, but it has been undermined by the global economic crisis of 1929 -1933. Due to the crisis the gold-exchange standard has collapsed. The exchange rate of several currencies decreased by 50 - 84%, the accumulation of gold by individuals increased, external payments stopped, a lot of "hot" money, which spontaneously move from one country to another in order to obtain profits, were formed. It caused the currency war, where the currency intervention, the currency dumping, currency restrictions and
used.

3.5 THE RISE OF THE GOLD STANDARD

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The gold standard is a monetary system in which paper money is freely convertible into a fixed amount of gold. In other words, in such a monetary system gold backs the value of money. Between 1696 and 1812, the development and formalization of the gold standard began as the introduction of paper money posed some problems.

The U.S. Constitution in 1789 gave Congress the sole right to coin money and the power to regulate its value. Creating a united national currency enabled the standardization of a monetary system that had up until then consisted of circulating foreign coin, mostly silver.

With silver in greater abundance relative to gold, a bimetallic standard was adopted in 1792. While the officially adopted silver-to-gold parity ratio of 15:1 accurately reflected the market ratio at the time, after 1793 the value of silver steadily declined, pushing gold out of circulation according to Gresham's law.

The issue would not be remedied until the Coinage Act of 1834, and not without strong political animosity. Hard money enthusiasts advocated for a ratio that would return gold coins to circulation, not necessarily to push out silver, but to push out small-denomination paper notes issued by the then hated Bank of the United States. A ratio of 16:1 that blatantly overvalued gold was established and reversed the situation, putting the U.S. on a de facto gold standard.

Across the Atlantic, the Restriction Bill in England suspended the conversion of notes into gold in 1797 due to too much credit being created with paper money. Also, constant supply imbalances between gold and silver created tremendous stress to England's economy. A gold standard was needed to instill the necessary controls on money.

By 1821, England became the first country to officially adopt a gold standard. The century's dramatic increase in global trade and production brought large discoveries of gold, which helped the gold standard remain intact well into the next century. As all trade imbalances between nations were settled with gold, governments had strong incentive to stockpile gold for more difficult times. Those stockpiles still exist today.

The international gold standard emerged in 1871 following the adoption of it by Germany. By 1900, the majority of the developed nations were linked to the gold standard. Ironically, the U.S. was one of the last countries to join. (A strong silver lobby prevented gold from being the sole monetary standard within the U.S. throughout the 19th century.)

From 1871 to 1914, the gold standard was at its pinnacle. During this period near-ideal political conditions existed in the world. Governments worked very well together to make the system work, but this all changed forever with the outbreak of the Great War in 1914.

3.6 THE FALL OF THE GOLD STANDARD

With World War I, political alliances changed, international indebtedness increased and government finances deteriorated. While the gold standard was not suspended, it was in limbo during the war, demonstrating its inability to hold through both good and bad times. This created a lack of confidence in the gold standard that only exacerbated economic difficulties. It became increasingly apparent that the world needed something more flexible on which to base its global economy.

At the same time, a desire to return to the idyllic years of the gold standard remained strong among nations. As the gold supply continued to fall behind the growth of the global economy, the British pound sterling and U.S. dollar became the global reserve currencies. Smaller countries began holding more of

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these currencies instead of gold. The result was an accentuated consolidation of gold into the hands of a few large nations.

The stock market crash of 1929 was only one of the world's post-war difficulties. The pound and the French franc were horribly misaligned with other currencies; war debts and repatriations were still stifling Germany; commodity prices were collapsing; and banks were overextended. Many countries tried to protect their gold stock by raising interest rates to entice investors to keep their deposits intact rather than convert them into gold. These higher interest rates only made things worse for the global economy. In 1931, the gold standard in England was suspended, leaving only the U.S. and France with large gold reserves.

Then in 1934, the U.S. government revalued gold from $20.67/oz to $35.00/oz, raising the amount of paper money it took to buy one ounce to help improve its economy. As other nations could convert their existing gold holdings into more U.S dollars, a dramatic devaluation of the dollar instantly took place. This higher price for gold increased the conversion of gold into U.S. dollars, effectively allowing the U.S. to corner the gold market. Gold production soared so that by 1939 there was enough in the world to replace all global currency in circulation.

As World War II was coming to an end, the leading Western powers met to develop the Bretton Woods Agreement, which would be the framework for the global currency markets until 1971. Within the Bretton Woods system, all national currencies were valued in relation to the U.S. dollar, which became the dominant reserve currency. The dollar, in turn, was convertible to gold at the fixed rate of $35 per ounce. The global financial system continued to operate upon a gold standard, albeit in a more indirect manner.

While gold has fascinated humankind for 5,000 years, it hasn't always been the basis of the monetary system. A true international gold standard existed for less than 50 years (1871 to 1914) in a time of world peace and prosperity that coincided with a dramatic increase in the supply of gold. The gold standard was the symptom and not the cause of this peace and prosperity.

Though a lesser form of the gold standard continued until 1971, its death had started centuries before with the introduction of paper money – a more flexible instrument for our complex financial world. Today, the price of gold is determined by the demand for the metal, and although it is no longer used as a standard, it still serves an important function. Gold is a major financial asset for countries and central banks. It is also used by the banks as a way to hedge against loans made to their government, and an indicator of economic health.

Under a free-market system, gold should be viewed as a currency like the euro, yen or U.S. dollar. Gold has a long-standing relationship with the U.S. dollar and over the long term, gold will generally have an inverse relationship. With instability in the market, it is common to hear talk of creating another gold standard, but it is not a flawless system. Viewing gold as a currency and trading it as such can mitigate risks compared with paper currency and the economy, but there must be an awareness that gold is forward-looking, and if one waits until disaster strikes, it may not provide an advantage if it has already moved to a price that reflects a slumping economy.

3.7 WORKING BREAKDOWN EXPERIENCE OF THE WORLD AFTER ITS BREAKDOWN

Before World War I, gold standard worked efficiently and remained widely accepted. It succeeded in ensuring exchange stability among the countries.

But with the starting of the war in 1914, gold standard was abandoned everywhere mainly because of two reasons: (a) to avoid adverse balance of payments and (b) to prevent gold exports falling into the hands of the enemy.

After the war in 1918, efforts were made to revive gold standard and, by 1925, it was widely established again. But, the great depression of 1929-33 ultimately led to the breakdown of the gold standard which disappeared completely from the world by 1937.

The gold standard failed because the rules of the gold standard game were not observed. Following were the main reasons of the decline of the gold standard.

1. Violation of Rules of Gold Standard

The successful working of the gold standard requires the observance of the basic rules of the gold standard:

(a) There should be free movement of gold between countries;

(b) There should be automatic expansion or contraction of currency and credit with the inflow and outflow of gold;

(c) The governments in different countries should help facilitate the gold movements by keeping their internal price system flexible in their respective economies.

After World War I, the governments of gold standard countries did not want their people to experience the inflationary and deflationary tendencies which would result by following the gold standard.

2. Restrictions on Free Trade

The successful working of gold standard requires free and uninterrupted trade of goods between the countries. But during interwar period, most of the gold standard countries abandoned the free trade policy under the impact of narrow nationalism and adopted restrictive policies regarding imports. This resulted in the reduction in international trade and thus the breakdown of the gold standard.

3. Inelastic Internal Price System

The gold standard aimed at exchange stability at the expense of the internal price stability. But during the inter-war period, the monetary authorities sought to maintain both exchange stability as well as price stability. This was impossible because exchange stability is generally accompanied by internal price fluctuations.

4. Unbalanced Distribution of Gold

A necessary condition for the success of gold standard is the availability of adequate gold stocks and their proper distribution among the member countries.

But in the inter-war period, countries like the U.S.A. and France accumulated too much gold, while countries of Eastern Europe and Germany had very low stocks of gold. This shortage of gold reserves led to the abandonment of the gold standard.

5. External Indebtedness

Smooth working of gold standard requires that gold should be used for trade purposes and not for the movement of capital. But during the inter-war period, excessive international indebtedness led to the decline of gold standard.

There were three main reasons for the excessive movement of capital between countries:

(a) After World War I, the victor nations forced Germany to pay war reparation in gold,

(b) There was movement of large amounts of short-term capital (often called as refugee capital) from one country to another in search of security,

(c) There was plenty of borrowing by the underdeveloped countries from the advanced countries for investment purpose.

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6. Excessive Use of Gold Exchange Standard

The excessive use of gold exchange standard was also responsible for the break-down of gold standard. Many small countries which were on gold exchange standard kept their reserves in London and New York. But, rumors of war and abnormal conditions forced the depositing countries to withdraw their gold reserves. This led to the abandonment of the gold standard.

7. Absence of International Monetary Centre

Movement of gold involves cost. Before 1914, such move-ment was not needed because London was working as the international monetary centre and the countries having deposit accounts in the London banks adjusted their adverse balance of payments through book entries.

But during inter-war period, London was fast losing its position as an international financial centre. In the absence of such a centre, every country had to keep large stocks of gold with them and large movements of gold had to take place. This was not proper and easily manageable. Thus, gold standard failed due to the absence of inter-national financial centre after World War I.

8. Lack of Co-operation

Economic co-operation among the participating countries is a necessary condi-tion for the success of gold standard. But after World War I, there was complete absence of such co-operation among the gold standard countries, which led to the downfall of the gold standard.

9. Political Instability

Political instability among the European countries also was responsible for the failure of gold standard. There were rumours of war, revolutions, political agitations, fear of transfer of funds to other countries. All these factors threatened the safe working of the gold standard and ultimately led to its abandonment.

10. Great Depression

The world-wide depression of 1929-33 probably gave the final blow to the gold standard. Falling prices and wide-spread unemployment were the fundamental features of depression which forced the countries to impose high tariffs to restrict imports and thus international trade. The great depression was also responsible for the flight of capital.

11. Rise of Economic Nationalism

After the World War I, a wave of economic nationalism swept the European countries. With an objective to secure self-sufficiency, each country followed protectionism and thus imposed restrictions on international trade. This was a direct interference in the working of the gold standard.

3.8 BRETTON WOODS SYSTEM AND ITS BREAKDOWN

After the abandonment of gold standard and chaotic international monetary conditions during the inter-war period, the need was being felt to evolve a more efficient and effective world monetary system. In 1944, the representatives of 44 countries met at Bretton Woods, New Hampshire in the United States for creating the framework of the international monetary system. The conference at Bretton Woods outlined certain principles as the guidelines for operating the world monetary system.

(i) The international monetary system must facilitate unrestricted trade and investment.

(ii) The national currencies would be defined in terms of gold parities and there would be fixed exchange rates. Only in the event of a fundamental disequilibrium in the BOP would a country be expected to change its exchange rates.

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(iii) The international liquidity would be made available to the countries for overcoming the temporary BOP deficits.

Thus Bretton Woods meet sought to combine certain features of the old gold standard with a greater degree of flexibility and some measure of control over international liquidity. The expectation and objective at the Bretton Woods was to create a new system that would avoid the undesirable aspects of the old system while retaining its best features.

The things that were to be avoided included rigidity of exchange rates and associated deflationary adjustment mechanism of the gold standard, the instability of the freely floating exchange rates, conflicts of national economic policies, competitive exchange depreciation and the repressive and distorting techniques of exchange controls.

The features, on the other hand, that were to be retained included stability of gold standard, easy adjustment mechanism, market freedom of floating rates, the discretionary control over market forces of the flexible rate system and the selective use of controls. In order to accomplish these objectives, new practices and institutions had to be devised.

The most far-reaching result of the Bretton Woods meet was the creation of International Monetary Fund (IMF). It was a compromise between the British plan put forward by Keynes and the American counter-plan put forward by Dexter and White. While the former was for the creation of an international clearing union, the latter was for a less ambitious stabilisation fund.

The IMF started functioning in March, 1947 with a membership of 30 countries. At present, its membership has gone upto 184. The IMF had two specific objectives of overseeing that the member countries followed a set of agreed rules of conduct in international trade and finance and of providing borrowing facilities for the member countries to tide over their BOP difficulties. Such borrowings were to be repaid within a period of three to four years.

Each member country was assigned a quota on the basis of its economic importance and the volume of its international trade. The member countries' quota determined their respective voting power and the ability to borrow funds. The total subscription to the Fund was $ 8.8 billion originally. It had grown to $ 205 billion or SDR 145 billion by 1993. The US quota was the largest in 1989 at 21 percent, followed by 7 percent each for the U.K., 6 percent each for Germany and France and 5 percent for Japan.

The member country on joining was to pay 25 percent of its quota in gold and remainder in its own currency. The member country could borrow 25 percent of its quota in one year upto a total of 125 percent of its quota over a period of 5 years. The first 25 percent of its quota, called gold tranche, could be borrowed almost automatically without any restriction or condition.

For further borrowing in the subsequent years, called credit tranche, the higher interest rates are charged and the IMF imposes more supervision and conditions to ensure that the deficit nation was taking appropriate measures to eliminate the BOP deficit. As regards repayments, these were to be made within a period of 3 to 5 years. It involved the nation's repurchase of its own currency from the Fund with other convertible currencies approved by the Fund until the IMF once again held no more than 75 percent of the nation's quota in the nation's currency.

Under the Bretton Woods System, the gold exchange standard was introduced. The United States was to maintain the price of gold fixed at $ 35 per ounce and to be ready to exchange dollars for gold at that price without restrictions or limitations. Other nations were required to fix the price of their currencies directly in terms of dollars and indirectly in terms of gold. The exchange rate could fluctuate within plus or minus 1 percent around the agreed par value.

The member countries could intervene in the exchange markets to prevent the fluctuation beyond the permissible limit. With the allowed band of fluctuation, the rate of exchange was determined by the

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forces of demand and supply. However, if a country faced a fundamental disequilibrium in the BOP, the alteration in the exchange rate beyond the permissible limit (± 1 percent) could be affected by it after seeking the consent of the IMF. It is clear that Bretton Woods System ushered in an adjustable peg system of exchange rate that combined the stability of fixed exchange system with greater flexibility than was allowed under the gold standard.

The Bretton Woods System envisaged the removal of all restrictions on the full convertibility of the currencies of member countries into currencies of one another or into dollar. The member countries were expected not to impose additional trade restrictions. The existing trade restrictions were to be removed gradually through multilateral negotiations. The restrictions on the international liquid capital flows were, however, permitted to enable the member countries to protect their currencies against large destabilizing, international money flows.

Since the IMF could provide assistance to the member countries only for tackling the temporary BOP deficit, the amounts obtained from it were to be repaid within a short period of 3 to 5 years. This provision was considered necessary so that the IMF funds should not get tied up for long periods. Under the Bretton Woods System, the long term development assistance was to be provided by the International Bank for Reconstruction and Development (IBRD) also called as the World Bank.

Subsequently, International Development Association (IDA) was established in 1960 to provide concessional development assistance to the poorer countries. Another affiliate of the World Bank International Finance Corporation was established in 1956 to stimulate private investments in the developing countries from the indigenous and foreign sources.

The Bretton Woods System worked reasonably well in the late 1950's and early 1960's. During this period, there were conditions of relatively free trade, a rapid expansion in trade and capital mobility. There was very little inflation or unemployment in the major industrial countries. On the whole, the System served the world community well until the mid 1960's.

3.9 BREAKDOWN OF THE BRETTON WOODS SYSTEM

No doubt the system worked fairly well until the mid-1960 but the system had some in-built weaknesses and contradictions, under the pressure of which, it eventually broke down on 15th August 1971.

The main factors that led to the collapse of this system were as follows:

(i) The Confidence Problem

By the end of 1950's many European countries were having BOP surpluses and the USA was running counterpart deficit. For the continued economic expansion, it was essential for the United States to maintain this deficit as it was the only way through which the growth of international reserves could be sustained in the absence of any other reserve asset including gold.

In the event, the USA continued to run bigger and bigger deficits while its gold assets remained constant. It was just a matter of time when the foreign holders of dollars, including central banks, doubted the ability of the United States to maintain the price of gold at $ 35 per ounce and rushed to convert dollars into gold before the dollar was devalued. This phenomenon was termed as the 'confidence problem'.

Similar crises of confidence continued to occur during the 1960's. Britain faced in 1967 a continuing BOP deficit and dwindling official reserves creating the expectations of devaluation of pound. The outflow of funds from England put pressure upon the pound sterling and led eventually to the devaluation of pound sterling in November 1967. A similar episode occurred in 1968-69. The persistent BOP surplus of West Germany led to widespread expectation of upward revaluation of the Mark.

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Such an expectation resulted in an almost embarrassing accumulation of reserves due to large scale inflow of foreign funds to that country. France particularly suffered a huge outflow of funds and to protect Franc, the French government imposed stringent exchange controls. But ultimately storm could be weathered only after there was upward readjustment of Mark and downward adjustment of Franc.

(ii) Seigniorage Problem

It was argued that the Bretton Woods System gave rise to the seigniorage of the United States over other countries, since dollar became the international reserve currency that conferred some undue privilege upon the Americans. The question of seigniorage arose because the United States was the issuing country of dollar. As and when it required dollar, it could issue more dollars.

On the other hand, another country that wanted to increase its holding of dollars could do so only by creating an export surplus i.e., it would have to forego real resources in exchange for the dollars. The central bank of the United States could obtain a much higher rate of return for dollars from the foreigners than what it could obtain in the home country. The existence of seigniorage was the cause of irritation among some of the countries including France. This factor, in the long run, undermined the Bretton Woods System.

(iii) Adjustment Problem

From the long run point of view, a serious weakness in the Bretton Woods System was the absence of an efficient balance of payments adjustment mechanism. No country can afford to have a persistent BOP deficit. The principal types of adjustment mechanism include adjustment through changes in relative incomes, through relative price changes, through the movements in exchange rates and through the imposition of direct controls over foreign transactions. The Bretton Woods System almost prohibited the use of direct controls.

As regards exchange rate variations, the system prescribed that exchange rate should be held stable with scope only for ±1 percent variation unless a fundamental disequilibrium warranted a greater degree of variation. So the crucial issue was to determine whether the disequilibrium was temporary or fundamental. The operational difficulty had been the timely recognition of the presence of fundamental disequilibrium. There was a general tendency among the member countries of IMF to resist changing the par value of the currency.

Devaluation was often opposed on the ground that it amounted to the acceptance of the failure of government policies and also on account of loss of national prestige. The upward revaluation was frequently opposed by the export industries of the surplus countries. The alternative adjustment mechanism through changes in prices and incomes was found to be in conflict with the domestic goals of full employment and price stability.

The adjustment through quantitative controls was opposed on account of possible distortion of resource allocation and reduction in economic efficiency. In such circumstances the countries adopted wait-and-see policy rather than taking a decisive and speedy action for BOP adjustments. The undue delay led to an aggravation of maladjustment and deepening of the BOP crisis.

(iv) Triffin Dilemma

A serious inbuilt contradiction in the system was exposed by Triffin as early as 1960. It is often referred as 'Triffin dilemma' i.e., either the United States corrected its deficit and created a liquidity shortage or it continued to run the BOP deficit. The latter alternative could only cause the crisis of confidence. The existence of this dilemma clearly showed that the system was inherently unstable and was destined to collapse.

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(v) Problem of Symmetry

There was a general problem of symmetry between deficit and surplus countries or between the USA and the rest of the world. Although the Bretton Woods System intended that both deficit and surplus countries should share the burden of adjustment in payments imbalances, yet the brunt of adjustment fell practically entirely upon the deficit countries.

While the surplus countries could continue to run surpluses so long as they were willing to accumulate reserves, the deficit countries could not run down their reserves indefinitely. This asymmetry between the deficit and surplus countries exposed a serious weakness in this system and became partly responsible for its eclipse.

(vi) The Liquidity Problem

One of the predominant causes of the breakdown of the Bretton Woods System was the problem of liquidity. Any system of fixed or stable exchange rate could work efficiently only if there were sufficient international reserves. During the 1950's and 1960's, the U.S. deficits in BOP continued to increase on account of overseas investments and escalation of Vietnam War. The European countries and Japan at the same time could create surpluses in their BOP.

The U.S. balance of payments deficit could be financed by either the export of gold or through the acquisition of dollars by the foreign surplus countries. In either of the two cases, the United States reserves deteriorated. The rest of the world continued to have large demand for dollars for making the BOP adjustments among themselves as dollar was the key currency. Even for maintaining the exchange rates stable in terms of dollars, countries started keeping a large fraction of their international reserves in the form of dollar balances and the short term dollar securities.

Apart from persistently increasing demand for dollars, this currency also emerged as the principal 'intervention currency' a currency which monetary authorities bought or sold in foreign exchange markets to keep exchange rates within ± 1 percent margin round the par values.

This problem of liquidity continued to become grave raising the worldwide expectation of the impending devaluation of dollar. But since other countries were tied to the dollar, that did not permit the United States to make readjustment of the exchange rate of dollar with other principal currencies.

(vii) Speculation and Short Term Capital Movements

After the development of Euro-dollar market in the late 1950's, there was rapid growth of highly mobile short term capital. The anticipated changes in par values on account of heavy pressure upon dollar resulted in large scale speculative capital. It led to the speculative capital movements from the United States to other surplus countries such as Germany, Japan and Switzerland. These large scale capital movements were bound to have destabilising effect upon exchange rate as well as the BOP adjustments.

(viii) Conditions of Inflation

An important factor to cause the collapse of the Bretton Woods System was the domestic inflation in the United States particularly after the escalation of Vietnam War from 1965. Both Johnson and Nixon administrations were unwilling to finance the war efforts by increased taxes. Instead easy money policies were pursued.

These policies intensified inflation in the United States and the balance of current account got weakened. The surplus countries of Europe feared the transmission of inflation to their own countries, when their balance of payments surpluses had been bringing about an increase in their money supplies.

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These countries, especially West Germany, attempted to counter inflation through the enforcement of strict monetary policies. The high interest rates further accentuated capital flow from the United States to the countries of Europe and Japan and precipitated in 1970-71 the fall of Bretton Woods System.

All these developments eventually resulted in the United States declaring on August 15, 1971 the inconvertibility of dollar into gold. At the same time, it imposed a temporary 10 percent surcharge on imports and the Bretton Woods System broke down.

The negotiations began almost immediately to bring about proper readjustments in the international monetary system. In December 1971, the representatives of the Group of Ten met at the Smithsonian Institute in Washington. This meeting could hammer out an agreement called as Smithsonian Agreement. It was agreed to increase the dollar price of gold from $ 35 per ounce to $ 38 per ounce. This implied the devaluation of dollar by about 9 percent.

The currencies of the two countries with the largest BOP surplus— Germany and Japan, were revalued. While the German mark was revalued by 17 percent and the Japanese yen was revalued by 14 percent. The band of fluctuation was increased from 1 percent to 2.25 percent on either side of the central rate. The United States withdrew 10 percent surcharge on imports. As the dollar remained inconvertible into gold, the world was essentially on the dollar standard. President Nixon of the United States assured that the dollar would not again be devalued.

It was expected that Smithsonian Agreement would remove the underlying cause of the disequilibrium that led to the crisis of August 1971. These expectations were realised only for a short period. The first break in the pattern of exchange rates established through Smithsonian Agreement occurred in May 1972, when the British pound came under heavy pressure. Britain decided to cease support of the exchange rate and to allow the rate to respond to market forces. Over the next six months, the value of pound dropped 10 percent below the level set in December 1971.

Japan, on the other hand, continued to have a large BOP surplus. The Japanese yen was subject to upward pressure. Throughout the latter half of 1972, the Japanese monetary authority had to buy large amounts of dollar in the foreign exchange market to keep the value of the yen within limits prescribed by the Smithsonian Agreement.

The United States had another huge BOP deficit ($ 10 billion) in 1972. The recognition started dawning that the Smithsonian Agreement was not working and that another devaluation of dollar was required. There was renewed speculation against the dollar and consequent large scale movement of short term capital from the United States to mainly Germany.

During the first seven trading days of February 1973, the German central bank purchased some $ 6 billion in order to prevent the mark from appreciating against the dollar. A second realignment of exchange rates had become unavoidable. On February 12, 1973, the United States was once again forced to devalue dollar by about 10 percent. There was the corresponding appreciation of the EC currencies in terms of dollar.

They decided to let their currencies float jointly. Japan and Italy too joined Britain in rescinding their previous policies of maintaining stable exchange rates and allowed their currencies to float and readjust according to market forces. When the exchange markets reopened on March 19, 1973, all of the World's major currencies were floating. The Bretton Woods System which had actually died in August 1971 was finally buried. The system of stable and pegged exchange rates gave way to the system of managed floating exchange rates.

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3.10 MONETARY SYSTEM AFTER THE COLLAPSE OF BRETTON WOODS SYSTEM

After the crisis of 1971, the Board of Governors of the IMF recognised the necessity of investigating the possible measures for the improvement in the international monetary system. In 1972, it constituted a committee of twenty members, often referred as The "Committee of Twenty" (C20). Three basic weaknesses of the Bretton Woods System, identified by the Committee included liquidity, confidence and adjustment. The outlines of recommendations made by the Committee, therefore, attempted to address to these issues.

Despite prolonged discussion between 1972 and 1974, there could not be any headway towards evolving measures for reforming the system. An agreement was finally reached at a meeting in Jamaica in 1976 concerning some amendments to the Articles of Agreement of the IMF. These were to be enforced from 1978. There was only a limited purpose behind it to make the system of managed float work better.

The principal changes introduced in the International monetary system included:

Firstly, the most significant development since 1978 in the international monetary relations has been the replacement of Special Drawing Rights (SDR's) in place of gold as a reserve asset system. The official price of gold has been abolished and the restrictions on its sale in the open market have been removed. In fact, the IMF has been itself selling off gold reserves and putting the proceeds in the special funds.

The dominant reserve assets at present are the national currencies, about 75 percent of which are in the U.S. dollar. However, other major currencies have also gained importance. Since SDR is no longer related to gold, it has been linked with a basket of 16 major currencies. The IMF has been engaged in expanding the range of activities for which the SDR's could be used. In addition, the interest rates on the IMF lendings have been raised closer to the market rate of interest.

Secondly, in order to relieve the problem of shortage of international liquidity, the IMF created several new credit facilities.

These include:

(i) The Compensatory Financing Facility (CFF), which enabled the member countries to draw from the fund upto 100 percent of their quota when they experienced BOP difficulties, caused by temporary shortfalls in the export receipts;

(ii) The Buffer Stock Financing Facility (BSFF) which permitted member countries to draw upto 50 percent of their quota to finance international buffer stock arrangements;

(iii) The Extended Fund Facility (EFF) which allowed the member countries to draw upto 140 percent of their quota extended over a period of three years, when facing serious structural imbalances;

(iv) The Supplementary Financing Facility (SFF) which provided supplementary financing facility when the member countries required the funds over and above those that could be made available under regular and standby arrangements for longer periods; and

(v) The oil facility, under which IMF borrowed funds from some surplus nations to assist those countries that suffered BOP deficits in view of steep rise in petroleum prices in 1973-74. By 1976, the oil facility had been fully utilised and it is now no longer operational. In view of the huge international debt problem faced by several LDC's, the IMF has also initiated some debt rescheduling and rescue operations.

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Thirdly, in the present international monetary system, the member countries are allowed either to float or peg their currencies. In the latter case, the exchange rate of one currency may be pegged to the currency of a particular country, the SDR or a basket of currencies. The exchange rate cannot be fixed in terms of gold. The exchange rate fixation or adjustments are subject to IMF supervision or guidelines. There are no limits on the margins within which these rates are pegged and there are no rules about how these should be altered.

In contrast to the structured arrangements of the gold standard and Bretton Woods System, the present system is more chaotic and reminiscent of the 1930's.

Some serious shortcomings in the present monetary system are as follows:

(i) There is the existence of a variety of exchange rate regimes with very little effective supervision.

(ii) The reserve asset system depends on the portfolio decisions of central bankers.

(iii) In the present system, there are no accepted rules for sharing the adjustment to payments imbalances.

(iv) The emergence of floating exchange rates has greatly accentuated uncertainty in international trade. Consequently many traders, bankers and economists like to see the return to a more orderly system.

3.11 WORLD MONETARY SYSTEM

The world monetary system is a functional form of the organization of international currency relations that is a set of methods, instruments and bodies (institutions), due to which cash payments are made within the global economy. Its main elements are: national reserve and supranational (collective) currency unit (SDR, the euro); the conditions of mutual convertibility of currencies; unified regime of exchange rate parities; regulation of exchange rate regimes; interstate regulation of foreign exchange restrictions; harmonization of international payments; the regime of the global foreign-exchange market and gold markets; interstate regional and supranational bodies involved in the management of monetary and financial relations.

The evolution of the world monetary system is defined by the development and the needs of both national and global economy, changes in the world economy and the periodic emergence of currency crises as well. The currency crisis is an explosion of monetary antagonism, disruption of the functioning of the world monetary system, which results in non-compliance of the principles of structural organization of the world exchange mechanism with the new conditions of production and world trade. Currency crises are accompanied by: the violation of the stability of the exchange rate; the redistribution of international reserves; exchange restrictions; the deterioration of the international currency liquidity.

The development of the global monetary system had a few stages, which took relatively long historical periods. There was the difference between one or another world monetary system. The essence of the difference depends on a reserve asset, which provided the balance-of-payments equilibrium (in different periods it was gold, the dollar, which was convertible into gold at a fixed rate, a currency fulfilling the function of international means of payment)

3.12 EFFORTS TO BUILD A WORLD MONETARY SYSTEM

The ultimate goal of the international monetary system is to maintain an orderly system of payments among nations. To this aim, the IMS has to provide the services of an international currency, ensure liquidity, define an exchange rate regime among national currencies and

Notes include an adjustment mechanism to avoid excessive external real and financial imbalances across nations.

Both global liquidity and the adjustment mechanism can be interpreted as global public goods. It is indeed only through access to global liquidity that it becomes possible to participate in, and finance, the global economy by using one or more reserve currencies as a means of payment, a unit of account or a store of value.

And it is only through an efficient and effective adjustment mechanism that it becomes possible to benefit from "external stability", namely a global sustainable constellation of cross-country economic linkages (e.g. via current accounts and asset/liability positions). Once external stability is achieved, cross-country linkages do not give rise to disruptive developments, such as disorderly exchange rate and asset price swings or contractions in real output and employment. External stability crucially depends on the policy behaviour of those issuers and holders of international currencies that are systemically relevant.

The exchange rate and capital flow regimes are probably the core elements of the adjustment mechanism, since they define the degree of flexibility of each IMS, i.e. its adaptability to changing economic circumstances. In contrast to the Bretton Woods system with fixed exchanges rates, semi-closed capital accounts and a strict adjustment mechanism, an IMS such as the present one enjoys a much higher degree of adaptability. Each country is free to choose its exchange rate and capital account regime, and the reserve-issuing countries face no IMS-embedded limits to the creation of global liquidity. This is a fundamental strength of today's system, but it may also become – as we will see – a major weakness to the extent that it creates scope for unsustainable domestic growth models and the ensuing accumulation of real and financial imbalances.

This list means that, potentially, all the features of an IMS can be at stake in the present discussion, contrary to what happened in the late nineties when the discussion revolved around the functioning of the financial sector and the crisis prevention and resolution in emerging economies. The debate then was not about the reform of the IMS but rather about a new Global Financial Architecture, meaning the international framework for safeguarding and ensuring the efficient functioning of the global financial system.

The agreement made no provisions to create international reserves. It assumed new gold production would be sufficient. In the event of structural disequilibria, it expected that there would be national solutions, for example, an adjustment in the value of the currency or an improvement by other means of a country's competitive position. The IMF was left with few means, however, to encourage such national solutions.

Economists and other planners recognized in 1944 that the new system could only commence after a return to normality following the disruption of World War II. It was expected that after a brief transition period of no more than five years, the international economy would recover and the system would enter into operation.

To promote growth of world trade and finance postwar reconstruction of Europe, the planners at Bretton Woods created another institution, the International Bank for Reconstruction and Development (IBRD), which is one of five agencies that make up the World Bank Group, and is perhaps now the most important agency [of the World Bank Group]. The IBRD had an authorized capitalization of $10 billion and was expected to make loans of its own funds to underwrite private loans and to issue securities to raise new funds to make possible a speedy postwar recovery. The IBRD was to be a specialized agency of the United Nations, charged with making loans for economic development purposes.

3.13 THE KEYNES AND WHITE PLANS

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The world's press has spent the past week blackening his name. Not intentionally: most of the dunderheads reporting the G20 summit that took place over the weekend really do believe that he proposed and founded the International Monetary Fund. It's one of those stories that passes unchecked from one journalist to another.

The truth is more interesting. At the UN's Bretton Woods conference in 1944, John Maynard Keynes put forward a much better idea. After it was thrown out, Geoffrey Crowther - then the editor of the Economist magazine - warned that "Lord Keynes was right ... the world will bitterly regret the fact that his arguments were rejected." But the world does not regret it, for almost everyone - the Economist included - has forgotten what he proposed.

One of the reasons for financial crises is the imbalance of trade between nations. Countries accumulate debt partly as a result of sustaining a trade deficit. They can easily become trapped in a vicious spiral: the bigger their debt, the harder it is to generate a trade surplus. International debt wrecks people's development trashes the environment and threatens the global system with periodic crises.

As Keynes recognised, there is not much the debtor nations can do. Only the countries that maintain a trade surplus have real agency, so it is they who must be obliged to change their policies. His solution was an ingenious system for persuading the creditor nations to spend their surplus money back into the economies of the debtor nations.

He proposed a global bank, which he called the International Clearing Union. The bank would issue its own currency - the bancor - which was exchangeable with national currencies at fixed rates of exchange. The bancor would become the unit of account between nations, which means it would be used to measure a country's trade deficit or trade surplus.

Every country would have an overdraft facility in its bancor account at the International Clearing Union,.equivalent to half the average value of its trade over a five-year period. To make the system work, the members of the union would need a powerful incentive to clear their bancor accounts by the end of the year: to end up with neither a trade deficit nor a trade surplus.

Keynes proposed that any country racking up a large trade deficit (equating to more than half of its bancor overdraft allowance) would be charged interest on its account. It would also be obliged to reduce the value of its currency and to prevent the export of capital. But - and this was the key to his system - he insisted that the nations with a trade surplus would be subject to similar pressures. Any country with a bancor credit balance that was more than half the size of its overdraft facility would be charged interest, at a rate of 10%. It would also be obliged to increase the value of its currency and to permit the export of capital. If, by the end of the year, its credit balance exceeded the total value of its permitted overdraft, the surplus would be confiscated. The nations with a surplus would have a powerful incentive to get rid of it. In doing so, they would automatically clear other nations' deficits.

When Keynes began to explain his idea, in papers published in 1942 and 1943, it detonated in the minds of all who read it. The British economist Lionel Robbins reported that "it would be difficult to exaggerate the electrifying effect on thought throughout the whole relevant apparatus of government ... nothing so imaginative and so ambitious had ever been discussed". Economists all over the world saw that Keynes had cracked it. As the Allies prepared for the Bretton Woods conference, Britain adopted Keynes's solution as its official negotiating position.

But there was one country - at the time the world's biggest creditor - in which his proposal was less welcome. The head of the American delegation at Bretton Woods, Harry Dexter White, responded to Keynes's idea thus: "We have been perfectly adamant on that point. We have taken the position of absolutely no." Instead he proposed an International Stabilisation Fund, which would place the entire

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burden of maintaining the balance of trade on the deficit nations. It would impose no limits on the surplus that successful exporters could accumulate. He also suggested an International Bank for Reconstruction and Development, which would provide capital for economic reconstruction after the war. White, backed by the financial clout of the US treasury, prevailed. The International Stabilisation Fund became the International Monetary Fund. The International Bank for Reconstruction and Development remains the principal lending arm of the World Bank.

The consequences, especially for the poorest indebted countries, have been catastrophic. Acting on behalf of the rich, imposing conditions that no free country would tolerate, the IMF has bled them dry. As Joseph Stiglitz has shown, the fund compounds existing economic crises and creates crises where none existed before. It has destabilised exchange rates, exacerbated balance of payments problems, forced countries into debt and recession, wrecked public services and destroyed the jobs and incomes of tens of millions of people.

The countries the fund instructs must place the control of inflation ahead of other economic objectives; immediately remove their barriers to trade and the flow of capital; liberalise their banking systems; reduce government spending on everything except debt repayments; and privatise the assets which can be sold to foreign investors. These happen to be the policies which best suit predatory financial speculators. They have exacerbated almost every crisis the IMF has attempted to solve.

You might imagine that the US, which since 1944 has turned from the world's biggest creditor to the world's biggest debtor, would have cause to regret the position it took at Bretton Woods. But Harry Dexter White ensured that the US could never lose. He awarded it special veto powers over any major decision made by the IMF or the World Bank, which means that it will never be subject to the fund's unwelcome demands. The IMF insists that the foreign exchange reserves maintained by other nations are held in the form of dollars. This is one of the reasons why the US economy doesn't collapse, no matter how much debt it accumulates.

On Saturday the G20 leaders admitted that "the Bretton Woods institutions must be comprehensively reformed". But the only concrete suggestions they made were that the IMF should be given more money and that poorer nations "should have greater voice and representation". We've already seen what this means: a tiny increase in their voting power, which does nothing to challenge the rich countries' control of the fund, let alone the US veto.

Is this the best they can do? No. As the global financial crisis deepens, the rich nations will be forced to recognise that their problems cannot be solved by tinkering with a system that is constitutionally destined to fail. But to understand why the world economy keeps running into trouble, they first need to understand what was lost in 1944.

3.14 THE BRITAIN WOODS SYSTEM

The Bretton Woods Agreement is the landmark system for monetary and exchange rate management established in 1944. It was developed at the United Nations Monetary and Financial Conference held in Bretton Woods, New Hampshire, from July 1 to July 22, 1944. Under the agreement, currencies were pegged to the price of gold, and the U.S. dollar was seen as a reserve currency linked to the price of gold.

The Bretton Woods Agreement remains an important part of world financial history. The creation of the International Monetary Fund (IMF) and valuation of gold and foreign exchange rates remain important to this day. The agreement also made currencies convertible for trade and other current account transactions. The strong value of the U.S. dollar eventually led to the collapse of this system after more than 20 years.

U.S. President Richard Nixon called for a suspension of the Bretton Woods Agreement in 1971 when it collapsed. The agreement was dissolved between 1968 and 1973. In 1973, the agreement officially ended. *Notes*

3.15 THE FAILURES MANAGED FLEXIBILITY IN ACTION DRAW BACKS OF THE STATE

Setting Up the Bretton Woods Agreement

Delegates from 44 countries met to create a new international monetary system. The main goals of the meeting of the 730 delegates were to ensure a foreign exchange rate system, prevent competitive devaluations and promote economic growth.

Preparation for this event took two years. The primary designers of the system were John Maynard Keynes, of the United Kingdom, and Harry Dexter White, the chief international economist of the Treasury Department. Keynes' plan was to establish a global central bank called the Clearing Union. White's plan limited the powers and resources of each country. In the end, the adopted plan took ideals from both, leaning more toward White's plan.

In 1958, the Bretton Woods system became fully functional. This happened as currencies became convertible. In order to convert currencies, countries settled their international balances in dollars, while U.S. dollars were fully convertible to gold. The exchange rate applied at the time was $35/ounce. Keeping the price of gold fixed and adjusting the supply of dollars was the responsibility of the United States.

Creation of Two New Institutions

One of the major items that came about from the Bretton Woods Agreement was the creation of the IMF. It was created to monitor exchange rates and lend reserve currencies to nations. It was formally introduced in December 1945 when 29 members signed the Articles of Agreement. The Bretton Woods Agreement also created the World Bank Group, which was set up to provide financial assistance for countries during the reconstruction post World War I phase.

End of Bretton Woods Agreement

The Bretton Woods Agreement was dissolved between 1968 and 1973. An overvaluation of the U.S. dollar led to concerns over the exchange rates and their tie to the price of gold. President Richard Nixon called for a temporary suspension of the dollar's convertibility. Countries were then free to choose any exchange agreement, except the price of gold. In 1973, foreign governments let currencies float, which put an end to the Bretton Woods system.

The Bretton Woods Agreement

The Bretton Woods agreement was created in a 1944 conference of all of the World War II Allied nations. It took place in Bretton Woods, New Hampshire.

Under the agreement, countries promised that their central banks would maintain fixed exchange rates between their currencies and the dollar. How exactly would they do this? If a country's currency value became too weak relative to the dollar, the bank would buy up its currency in foreign exchange markets. That would lower the currency's supply and raise its price. If its currency became too high, the bank would print more. That would increase the supply and lower its price.

Members of the Bretton Woods system agreed to avoid trade wars. For example, they wouldn't lower their currencies strictly to increase trade. But they could regulate their currencies under certain conditions. For example, they could take action if foreign direct investment began to destabilize their economies. They could also adjust their currency values to rebuild after a war.

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Before Bretton Woods, most countries followed the gold standard. That meant each country guaranteed that it would redeem its currency for its value in gold. After Bretton Woods, each member agreed to redeem its currency for U.S. dollars, not gold. Why dollars? The United States held three-fourths of the world's supply of gold. No other currency had enough gold to back it as a replacement. The dollar's value was 1/35 of an ounce of gold. Bretton Woods allowed the world to slowly transition from a gold standard to a U.S. dollar standard.

The dollar had now become a substitute for gold. As a result, the value of the dollar began to increase relative to other currencies. There was more demand for it, even though its worth in gold remained the same. This discrepancy in value planted the seed for the collapse of the Bretton Woods system three decades later.

Until World War I, most countries were on the gold standard. But they went off so they could print the currency needed to pay for their war costs. It caused hyperinflation, as the supply of money overwhelmed the demand. The value of money fell so dramatically that, in some cases, people needed wheelbarrows full of cash just to buy a loaf of bread. After the war, countries returned to the safety of the gold standard.

All went well until the Great Depression. After the 1929 stock market crash, investors switched to forex trading and commodities. It drove up the price of gold, resulting in people redeeming their dollars for gold. The Federal Reserve made things worse by defending the nation's gold reserve by raising interest rates. It's no wonder that countries were ready to abandon a pure gold standard.

The Bretton Woods system gave nations more flexibility than a strict adherence to the gold standard. It also provided less volatility than a currency system with no standard at all. A member country still retained the ability to alter its currency's value if needed to correct a "fundamental disequilibrium" in its current account balance.

3.16 ROLE OF THE IMF AND WORLD BANK

The Bretton Woods system could not have worked without the IMF. Member countries needed it to bail them out if their currency values got too low. They'd need a kind of global central bank they could borrow from in case they needed to adjust their currency's value and didn't have the funds themselves. Otherwise, they would just slap on trade barriers or raise interest rates.

The Bretton Woods countries decided against giving the IMF the power of a global central bank. This power involved printing money as needed. Instead, they agreed to contribute to a fixed pool of national currencies and gold to be held by the IMF. Each member of the Bretton Woods system was then entitled to borrow what it needed, within the limits of its contributions. The IMF was also responsible for enforcing the Bretton Woods agreement.

The World Bank, despite its name, was not the world's central bank. At the time of the Bretton Woods agreement, the World Bank was set up to lend to the European countries devastated by World War II. Now the purpose of the World Bank is to loan money to economic development projects in emerging market countries.

In 1971, the United States was suffering from massive stagflation. That's a deadly combination of inflation and recession. It was partly a result of the dollar's role as a global currency. In response, President Nixon started to deflate the dollar's value in gold. Nixon revalued the dollar to 1/38 of an ounce of gold, then 1/42 of an ounce.

But the plan backfired. It created a run on the U.S. gold reserves at Fort Knox as people redeemed their quickly devaluing dollars for gold. In 1973, Nixon unhooked the value of the dollar from gold altogether. Without price controls, gold quickly shot up to $120 per ounce in the free market. The Bretton Woods system was over.

Notes

Before Bretton Woods, most countries followed the gold standard. That meant each country guaranteed that it would redeem its currency for its value in gold. After Bretton Woods, each member agreed to redeem its currency for U.S. dollars, not gold. Why dollars? The United States held three-fourths of the world's supply of gold. No other currency had enough gold to back it as a replacement. The dollar's value was 1/35 of an ounce of gold. Bretton Woods allowed the world to slowly transition from a gold standard to a U.S. dollar standard.

The dollar had now become a substitute for gold. As a result, the value of the dollar began to increase relative to other currencies. There was more demand for it, even though its worth in gold remained the same. This discrepancy in value planted the seed for the collapse of the Bretton Woods system three decades later.

Until World War I, most countries were on the gold standard. But they went off so they could print the currency needed to pay for their war costs. It caused hyperinflation, as the supply of money overwhelmed the demand. The value of money fell so dramatically that, in some cases, people needed wheelbarrows full of cash just to buy a loaf of bread. After the war, countries returned to the safety of the gold standard.

All went well until the Great Depression. After the 1929 stock market crash, investors switched to forex trading and commodities. It drove up the price of gold, resulting in people redeeming their dollars for gold. The Federal Reserve made things worse by defending the nation's gold reserve by raising interest rates. It's no wonder that countries were ready to abandon a pure gold standard.

The Bretton Woods system gave nations more flexibility than a strict adherence to the gold standard. It also provided less volatility than a currency system with no standard at all. A member country still retained the ability to alter its currency's value if needed to correct a "fundamental disequilibrium" in its current account balance.

3.16 ROLE OF THE IMF AND WORLD BANK

The Bretton Woods system could not have worked without the IMF. Member countries needed it to bail them out if their currency values got too low. They'd need a kind of global central bank they could borrow from in case they needed to adjust their currency's value and didn't have the funds themselves. Otherwise, they would just slap on trade barriers or raise interest rates.

The Bretton Woods countries decided against giving the IMF the power of a global central bank. This power involved printing money as needed. Instead, they agreed to contribute to a fixed pool of national currencies and gold to be held by the IMF. Each member of the Bretton Woods system was then entitled to borrow what it needed, within the limits of its contributions. The IMF was also responsible for enforcing the Bretton Woods agreement.

The World Bank, despite its name, was not the world's central bank. At the time of the Bretton Woods agreement, the World Bank was set up to lend to the European countries devastated by World War II. Now the purpose of the World Bank is to loan money to economic development projects in emerging market countries.

In 1971, the United States was suffering from massive stagflation. That's a deadly combination of inflation and recession. It was partly a result of the dollar's role as a global currency. In response, President Nixon started to deflate the dollar's value in gold. Nixon revalued the dollar to 1/38 of an ounce of gold, then 1/42 of an ounce.

But the plan backfired. It created a run on the U.S. gold reserves at Fort Knox as people redeemed their quickly devaluing dollars for gold. In 1973, Nixon unhooked the value of the dollar from gold altogether. Without price controls, gold quickly shot up to $120 per ounce in the free market. The Bretton Woods system was over.

3.17 SUMMARY

Notes

An international monetary system is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross border investment and generally the reallocation of capital between nation states. It should provide means of payment acceptable to buyers and sellers of different nationalities, including deferred payment. To operate successfully, it needs to inspire confidence, to provide sufficient liquidity for fluctuating levels of trade, and to provide means by which global imbalances can be corrected. The system can grow organically as the collective result of numerous individual agreements between international economic factors spread over several decades. Alternatively, it can arise from a single architectural vision, as happened at Bretton Woods in 1944.

The gold standard widely adopted in this era rested on the conversion of paper notes into pre-set quantities of gold. From the 1816 to the outbreak of World War I in 1914, the world benefited from a well-integrated financial order, sometimes known as the "first age of globalization". There were monetary unions which enabled member countries to accept each other's currencies as legal tender. Such unions included the Latin Monetary Union (Belgium, Italy, Switzerland, France) and the Scandinavian monetary union (Denmark, Norway and Sweden). In the absence of shared membership of a union, transactions were facilitated by widespread participation in the gold standard, by both independent nations and their colonies. Great Britain was at the time the world's pre-eminent financial, imperial, and industrial power, ruling more of the world and exporting more capital as a percentage of her national income than any other creditor nation has since.

British and American policy makers began to plan the post-war international monetary system in the early 1940s. The objective was to create an order that combined the benefits of an integrated and relatively liberal international system with the freedom for governments to pursue domestic policies aimed at promoting full employment and social wellbeing. The principal architects of the new system, John Maynard Keynes and Harry Dexter White, created a plan which was endorsed by the 42 countries attending the 1944 Bretton Woods conference, formally known as the United Nations Monetary and Financial Conference.

The gold standard is a monetary system where a country's currency or paper money has a value directly linked to gold. With the gold standard, countries agreed to convert paper money into a fixed amount of gold. A country that uses the gold standard sets a fixed price for gold and buys and sells gold at that price. That fixed price is used to determine the value of the currency. For example, if the U.S. sets the price of gold at $500 an ounce, the value of the dollar would be 1/500th of an ounce of gold.

The gold standard is not currently used by any government. Britain stopped using the gold standard in 1931 and the U.S. followed suit in 1933 and abandoned the remnants of the system in 1971. The gold standard was completely replaced by fiat money, a term to describe currency that is used because of a government's order, or fiat, that the currency must be accepted as a means of payment. In the U.S., for instance the dollar is fiat money, and for Nigeria, it is the naira.

The first world monetary system was the Paris monetary system. It was legalized by international agreement at a conference in Paris in 1867. The base of the monetary system was a gold-coin (gold) standard: gold was recognized as the only form of world money. According to the gold content of currencies, their gold parities were established (ratio of currency units of different countries on their gold content).

The gold standard is a monetary system in which paper money is freely convertible into a fixed amount of gold. In other words, in such a monetary system gold backs the value of money. Between 1696 and 1812, the development and formalization of the gold standard began as the introduction of paper money posed some problems.

Notes With silver in greater abundance relative to gold, a bimetallic standard was adopted in 1792. Wh the officially adopted silver-to-gold parity ratio of 15:1 accurately reflected the market ratio at the tim after 1793 the value of silver steadily declined, pushing gold out of circulation according to Gresham law.

With World War I, political alliances changed, international indebtedness increased and governmen finances deteriorated. While the gold standard was not suspended, it was in limbo during the wa demonstrating its inability to hold through both good and bad times. This created a lack of confidence i the gold standard that only exacerbated economic difficulties. It became increasingly apparent that th world needed something more flexible on which to base its global economy.

After the abandonment of gold standard and chaotic international monetary conditions during the inter-war period, the need was being felt to evolve a more efficient and effective world monetary system. In 1944, the representatives of 44 countries met at Bretton Woods, New Hampshire in the United States for creating the framework of the international monetary system. The conference at Bretton Woods outlined certain principles as the guidelines for operating the world monetary system.

After the crisis of 1971, the Board of Governors of the IMF recognised the necessity of investigating the possible measures for the improvement in the international monetary system. In 1972, it constituted a committee of twenty members, often referred as The "Committee of Twenty" (C20). Three basic weaknesses of the Bretton Woods System, identified by the Committee included liquidity, confidence and adjustment. The outlines of recommendations made by the Committee, therefore, attempted to address to these issues.

The world monetary system is a functional form of the organization of international currency relations that is a set of methods, instruments and bodies (institutions), due to which cash payments are made within the global economy. Its main elements are: national reserve and supranational (collective) currency unit (SDR, the euro); the conditions of mutual convertibility of currencies; unified regime of exchange rate parities; regulation of exchange rate regimes; interstate regulation of foreign exchange restrictions; harmonization of international payments; the regime of the global foreign-exchange market and gold markets; interstate regional and supranational bodies involved in the management of monetary and financial relations.

3.18 SELF-ASSESSMENT QUESTIONS

1. What is International Monetary System? Discuss about the International Monetary System.
2. What is International and Gold Standard? Explain about Gold Standard as an international standard.
3. What is World Monetary System? Discuss working breakdown experience of the world after its breakdown.
4. Explain about efforts to build a world monetary system.
5. What is Keynes and White Plan? Discuss about the Keynes and white plans.
6. What is Britain Woods System? Explain about the Britain Woods system.
7. Discuss about the failures managed flexibility in action drawbacks of th

Chapter

4

REGIONAL CLEARING SYSTEM

Objectives

The objectives of this lesson are to:

- Regional Clearing System
- The Sterling Area
- The Intra-European Payments Agreements
- The Dollar Problem
- Nature of the Problem in the Fifties and Seventies
- Impact on the World Monetary System
- The Problem of International Liquidity
- The Adjustment Mechanism
- The International Monetary System

Structure:

4.1 Regional Clearing System

4.2 Electronic Payment and Settlement Systems in India

4.3 The Sterling Area

4.4 The intra-European Payments Agreements

4.5 The Dollar Problem

4.6 The historical evidence of stability of the U.S. dollar

4.7 Nature of the problem in the fifties and seventies

4.8 The Gold Exchange Standard

4.9 Bretton Woods: the dollar exchange rate regime

4.10 The early years of the Bretton Woods monetary system

4.11 The unravelling of Bretton Woods

4.12 The Dollar Problems and its Impact on the World Monetary System

4.13 The Proposal for an International Commodity Reserve Currency

4.14 Proposals for New Issues of SDRs

4.15 Creating a public international investment fund for emerging economies

4.16 Reforming the International Payments System

Notes

4.17 Structure for reviving SDR issuance
4.18 Liquidity
4.19 The Problem of International Liquidity
4.20 Importance of International Liquidity
4.21 The Adjustment Mechanism
4.22 Criticisms of Adjustment Mechanism
4.23 The International Monetary System
4.24 Summary
4.25 Self-Assessment Questions

4.1 REGIONAL CLEARING SYSTEM

Regional Clearing System is a centralized, web-based clearing service that can ease the work of banks, financial institutions, the government and corporate by consolidating all regional ECS systems into one national payment system, thereby removing any geographical barriers in efficient banking. Payment and settlement systems in India are payment and settlement systems in India for financial transactions. They are covered by the Payment and Settlement Systems Act, 2007 (PSS Act), legislated in December 2007 and regulated by the Reserve Bank of India and the Board for Regulation and Supervision of Payment and Settlement Systems. India has multiple payments and settlement systems, both gross and net settlement systems. For gross settlement India has a Real Time Gross Settlement (RTGS) system called by the same name and net settlement systems include Electronic Clearing Services (ECS Credit), Electronic Clearing Services (ECS Debit), credit cards, debit cards, the National Electronic Fund Transfer (NEFT) system and Immediate Payment Service.

4.2 ELECTRONIC PAYMENT AND SETTLEMENT SYSTEMS IN INDIA

The Reserve Bank of India is doing its best to encourage alternative methods of payments which will bring security and efficiency to the payments system and make the whole process easier for banks.

The Indian banking sector has been growing successfully, innovating and trying to adopt and implement electronic payments to enhance the banking system. Though the Indian payment systems have always been dominated by paper-based transactions, e-payments are not far behind. Ever since the introduction of e-payments in India, the banking sector has witnessed growth like never before.

According to a survey by celent, the ratio of e-payments to paper based transactions has considerably increased between 2004 and 2008. This has happened as a result of advances in technology and increasing consumer awareness of the ease and efficiency of internet and mobile transactions.

In the case of India, the RBI has played a pivotal role in facilitating e-payments by making it compulsory for banks to route high value transactions through Real Time Gross Settlement (RTGS) and also by introducing NEFT (National Electronic Funds Transfer) and NECS (National Electronic Clearing Services) which has encouraged individuals and businesses to switch. India is clearly one of the fastest growing countries for payment cards in the Asia-Pacific region. Behavioral patterns of Indian customers are also likely to be influenced by their internet accessibility and usage, which currently is about 32 million PC users, 68% of whom have access to the net. However these statistical indications are far from the reality where customers still prefer to pay "in line" rather than online, with 63% payments still being made in cash. E-payments have to be continuously promoted showing consumers the various

routes through which they can make these payments like ATM's, the internet, mobile phones and drop boxes. *Notes*

Due to the efforts of the RBI and the (BPSS) now over 75% of all transaction volume are in the electronic mode, including both large-value and retail payments. Out of this 75%, 98% come from the RTGS (large-value payments) whereas a meager 2% come from retail payments. This means consumers have not yet accepted this as a regular means of paying their bills and still prefer conventional methods. Retail payments if made via electronic modes are done by ECS (debit and credit), EFT and card payments.

(i) Electronic Clearing Service (ECS Credit)

Known as "Credit-push" facility or one-to-many facility this method is used mainly for large-value or bulk payments where the receiver's account is credited with the payment from the institution making the payment. Such payments are made on a timely-basis like a year, half a year, etc. and used to pay salaries, dividends or commissions. Over time it has become one of the most convenient methods of making large payments.

(ii) Electronic Clearing Services (ECS Debit)

Known as many-to-one or "debit-pull" facility this method is used mainly for small value payments from consumers/ individuals to big organizations or companies. It eliminates the need for paper and instead makes the payment through banks/corporates or government departments. It facilitates individual payments like telephone bills, electricity bills, online and card payments and insurance payments. Though easy this method lacks popularity because of lack of consumer awareness.

(iii) Credit cards and Debit cards

As mentioned above India is one of the fastest growing countries in the plastic money segment. Already there are 130 million cards in circulation, which is likely to increase at a very fast pace due to rampant consumerism. India's card market has been recording a growth rate of 30% in the last 5 years. Card payments form an integral part of e-payments in India because customers make many payments on their card-paying their bills, transferring funds and shopping.

Ever since Debit cards entered India, in 1998 they have been growing in number and today they consist of nearly 3/4th of the total number of cards in circulation.

Credit cards have shown a relatively slower growth even though they entered the market one decade before debit cards. Only in the last 5 years has there been an impressive growth in the number of credit cards- by 74.3% between 2004 and 2008. It is expected to grow at a rate of about 60% considering levels of employment and disposable income. Majority of credit card purchases come from expenses on jewellery, dining and shopping.

Another recent innovation in the field of plastic money is co-branded credit cards, which combine many services into one card-where banks and other retail stores, airlines, telecom companies enter into business partnerships. This increases the utility of these cards and hence they are used not only in ATM's but also at Point of sale (POS) terminals and while making payments on the net.

(iv) Real-Time Gross Settlement (RTGS)

The acronym 'RTGS' stands for real time gross settlement. The Reserve Bank of India (India's Central Bank) maintains this payment network. Real Time Gross Settlement is a funds transfer mechanism where transfer of money takes place from one bank to another on a 'real time' and on 'gross' basis. This is the fastest possible money transfer system through the banking channel. Settlement in 'real time' means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. 'Gross settlement' means the transaction is settled on one to one basis without

Notes bunching with any other transaction. Considering that money transfer takes place in the books of the Reserve Bank of India, the payment is taken as final and irrevocable.

Fees for RTGS vary from bank to bank. RBI has prescribed upper limit for the fees which can be charged by all banks both for NEFT and RTGS. Both the remitting and receiving must have core banking in place to enter into RTGS transactions. Core Banking enabled banks and branches are assigned an Indian Financial System Code (IFSC) for RTGS and NEFT purposes. This is an eleven digit alphanumeric code and unique to each branch of bank. The first four letters indicate the identity of the bank and remaining seven numerals indicate a single branch. This code is provided on the cheque books, which are required for transactions along with recipient's account number.

RTGS is a large value (minimum value of transaction should be ?2,00,000) funds transfer system whereby financial intermediaries can settle interbank transfers for their own account as well as for their customers. The system effects final settlement of interbank funds transfers on a continuous, transaction-by-transaction basis throughout the processing day. Customers can access the RTGS facility between 9 am to 4:30 pm (Interbank up to 6:30 pm) on weekdays and 9 am to 2:00 pm (Interbank up to 3:00 pm) on Saturdays. However, the timings that the banks follow may vary depending on the bank branch. Time Varying Charges has been introduced w.e.f. 1 October 2011 by RBI. The basic purpose of RTGS is to facilitate the transactions which need immediate access for the completion of the transaction.

Banks could use balances maintained under the cash reserve ratio (CRR) and the intra-day liquidity (IDL) to be supplied by the central bank, for meeting any eventuality arising out of the real time gross settlement (RTGS). The RBI fixed the IDL limit for banks to three times their net owned fund (NOF).

The IDL will be charged at ₹ 25 per transaction entered into by the bank on the RTGS platform. The marketable securities and treasury bills will have to be placed as collateral with a margin of five per cent. However, the apex bank will also impose severe penalties if the IDL is not paid back at the end of the day. The RTGS service window for customer's transactions is available from 8:00 hours to 19:00 hours on week days and from 8:00 hours to 13:00 hours on Saturdays. No Transaction on weekly holidays and public holidays.

4.3 THE STERLING AREA

Sterling area is a group of countries that kept most of their exchange reserves at the Bank of England and, in return, had access to the London capital and money market. After the devaluation of the pound sterling in September 1931, the United Kingdom and other countries that continued to maintain parity with sterling and to hold their reserves in London became known as the sterling bloc.

1931-39

One of the consequences of the economic crisis of 1929–33 was that a large number of countries abandoned the gold standard. This meant that their governments no longer guaranteed, in gold terms, their currencies' values. The United Kingdom (and the Irish Free State, whose currency had a rigidly fixed exchange rate with the British pound) left the gold standard in 1931. To reduce the fluctuation of exchange rates, many of the countries that left the gold standard decided to stabilize their currencies with respect to the value of the British pound (which is also known as sterling). These countries became known, initially unofficially, as the Sterling Area (and also as the Sterling Bloc). Sterling Area countries tended (as they had before the end of the gold standard) to hold their reserves in the form of sterling balances in London.

The countries that formed the Sterling Area generally had at least one of two characteristics. The UK had strong historical links with these countries and/or was a major market for their exports. Membership of the Sterling Area was not constant. By 1933, it comprised most of the British Empire,

Notes

and Denmark, Egypt, Estonia, Finland, Iran, Iraq, Latvia, Lithuania, Norway, Portugal, Siam (Thailand), Sweden, and other countries. Despite being parts of the British Empire, Canada, Hong Kong, and Newfoundland did not join the Sterling Area. However, Hong Kong joined the Sterling Area after the Second World War. Other countries, including Argentina, Brazil, Bolivia, Greece, Japan, and Yugoslavia, stabilized their exchange rates with respect to the British pound for several years and (especially Argentina and Japan) often held significant reserves in sterling but, partly because they enforced exchange control, were not regarded as part of the Sterling Area.

Following the 1931 crisis, the UK introduced restrictions on overseas lending. This provided an additional incentive for Sterling Area membership. Countries that pegged their currencies to the British pound, and held their official external reserves largely in sterling assets, had preferential access to the British capital market. The British pound was perceived to have a relatively stable value and to be widely acceptable.

Membership of the Sterling Area also involved an effective pooling of non-sterling (especially U.S.dollar) reserves, which were frequently a scarce resource. This was of mutual benefit; the surpluses of some countries financed the deficits of others. The UK could perhaps be regarded as the banker for the other members of the Sterling Area.

Following the gold standard crisis in the early 1930s, the Sterling Area was one of three major currency groups. The gold bloc, comprising Belgium, France, Italy, Luxembourg, Netherlands, Switzerland, and Poland (and the colonial territories of four of these), consisted of those countries that, in 1933, expressed a formal determination to continue to operate the gold standard. However, this bloc began to collapse from 1935. The third group of countries was known as the exchange-control countries. The members of this bloc, comprising Austria, Bulgaria, Czechoslovakia, Germany, Greece, Hungary, Turkey, and Yugoslavia, regulated the currency market and imposed tariffs and import restrictions. Germany was the dominant member of this bloc.

1939-45

In September 1939, at the start of the Second World War, the British government introduced exchange controls. However, there were no restrictions on payments between Sterling Area countries. The value of the pound was fixed at US$4.03, which was a devaluation of about 14%. Partly as a result of these measures, most of the Sterling Area countries without a British connection withdrew. Egypt, Faroe Islands, Iceland, and Iraq remained members, and the Free French (non-Vichy) territories became members, of the Sterling Area.

1945-72

There were three main changes in the Sterling Area after the Second World War. First, its membership was precisely defined, as the Scheduled Territories, in the Exchange Control Act, 1947. It was previously unclear whether certain countries were members. Second, the Sterling Area became more discriminatory. Members tended not to restrict trade with other Sterling Area countries while applying restrictions to trade with other countries. The intention was to economize on the use of United States dollars, and other non-sterling currencies, which were in short supply. Third, war finances had increased many countries' sterling balances in London without increasing the reserves held by the British government. This exposed the reserves to heavier pressures than they had had to withstand before the war.

In 1947, the Sterling Area was defined as all members of the Commonwealth except Canada and Newfoundland, all British territories, Burma, Iceland, Iraq, Irish Republic, Jordan, Kuwait and the other Persian Gulf sheikhdoms, and Libya. In the rest of the world, which was categorized as the Prescribed Territories, controls prevented the conversion of British pounds to U.S. dollars (and to currencies that were pegged to the U.S. dollar). Formal convertibility of British pounds into U.S. dollars, which was introduced in 1958, applied only to non-residents of the Sterling Area (Schenk, 2010).

Notes

Following the 1949 devaluation of the British pound, by 30.5% from US$4.03 to US$2.80, much of the rest of the world, and almost all of the Sterling Area, devalued too. This indicates the major international trading role of the British economy. A notable exception, which did not devalue immediately, was Pakistan. Most currencies' sterling parities did not change, so this destroyed the intended effect of the British devaluation.

The world economy had changed by the time of the next sterling crisis. The immediate international impact of the 1967 devaluation of the British pound, by 14.3% from US$2.80 to US$2.40, reflects the diminished significance of the Sterling Area. In marked contrast to the response to the 1949 devaluation, only fourteen members of the International Monetary Fund devalued their currencies following the British devaluation of 1967. A significant proportion of Sterling Area countries, including Australia, India, Pakistan, and South Africa, did not devalue. Many of the other Sterling Area countries, including Ceylon (Sri Lanka), Hong Kong, Iceland, Fiji, and New Zealand, devalued by different percentages, which changed their currencies' sterling parities. Outside the Sterling Area, a small number of countries devalued; most of these devalued by percentages that were different to the British devaluation. The effect was that a large number of sterling parities were changed by the 1967 devaluation.

The Sterling Area showed obvious signs of decline even before the 1967 devaluation. For example, Nigeria ended its sterling parity in 1962 and Ghana ended its sterling parity in 1965. In 1964, sterling was 83% of the official reserves of overseas Sterling Area countries, but this share had decreased to 75% in 1966 and to 65% in 1967 (Schenk, 2010). The role of the UK in the Sterling Area was frequently seen, especially by France, as an obstacle in the British application to join the European Economic Community.

The reserves of the overseas members of the Sterling Area suffered a capital loss following the 1967 devaluation. This encouraged diversification of reserves into other types of assets. The British government responded by negotiating the Basel Agreements with other governments in the Sterling Area (Yeager, 1976). Each country in the Sterling Area undertook to limit its holdings of non-sterling assets and, in return, the U.S.dollar value of its sterling assets was guaranteed. These agreements restrained, but did not halt, the downward trend of holdings of sterling reserves. The Basel Agreements were partly underwritten by other central banks, which were concerned for international monetary stability, and were arranged with the assistance of the Bank for International Settlements.

1972-79

In 1972, the UK ended the fixed exchange rate, in U.S. dollars, of the pound. In 1971 or in 1972, most other Sterling Area countries ended their fixed exchange rates with respect to the British pound. Some of these countries, including Australia, Hong Kong, Jamaica, Jordan, Kenya, Malaysia, New Zealand, Pakistan, Singapore, South Africa, Sri Lanka, Tanzania, Uganda, and Zambia, pegged their currencies to the U.S. dollar. The minority of Sterling Area members that retained their sterling parities included Bangladesh, Gambia, Irish Republic, Seychelles, and the Eastern Caribbean Currency Union. Other countries in the Sterling Area introduced floating exchange rates.

Also in 1972, the UK extended to Sterling Area countries the exchange controls on capital transactions that had previously applied only to other countries. This decision, combined with the changes in sterling parities, meant that the Sterling Area effectively ceased to exist in 1972.

In 1979, when it joined the European Monetary System, the Irish Republic ended its fixed exchange rate with respect to the British pound. Membership of the EMS, which the UK did not join until 1990, required the ending of the link between the British pound and the Irish Republic pound. Also in 1979, the UK abolished all of its remaining exchange controls.

4.4 THE INTRA-EUROPEAN PAYMENTS AGREEMENTS

Notes

A payments system established between the member countries of the Organization for European Economic Cooperation in 1948 to facilitate the distribution of U.S. aid under the European Recovery Programme and to encourage intra-European trade by facilitating the settlement of intra-European balance of payments deficits. Based on a set of intra-European bilateral trade forecasts, a country for which a surplus balance of payments was expected received U.S. aid above a certain minimum only on condition that it extended drawing rights to its European partners in its own currency. A deficit country, therefore, received aid both from the U.S. and from the European countries in surplus. The surplus country, on the other hand, to obtain similar levels of U.S. aid was required itself to extend aid to its partners. This system, based on what was known as 'compensation agreements', was very ungainly and the forecasts often proved hopelessly inaccurate. It was replaced by the European Payments Union in 1950.

Rules on charges for cross-border payments in euro

The regulation (EC) No 924/2009 on charges for cross-border payments in euro was also adopted in the context of SEPA. It requires banks to apply the same charges for domestic and cross-border electronic payment transactions in euro.

It was later amended by the SEPA regulation, which further integrates the market for payment services in euro.

The principle of equal charges both for national and cross-border payments applies to all electronically processed payments in euro, including:

a) Credit transfers

b) Direct debits

c) Withdrawals at cash dispensers (ATMs)

d) Payments by debit and credit cards

e) Money remittance

Countries outside the euro area may also extend the application of this regulation to their national currency. Sweden and Romania have chosen this option.

In April 2018, the Commission presented a proposal to extend the benefits introduced by regulation (EC) No 924/2009 to consumers and businesses in non-euro countries. Under this proposal, all people in the EU will be able to transfer money cross-border, in euro, at the same cost as they would pay for a domestic transaction. The new rules will also require that consumers are informed of the cost of a currency conversion before they make a payment abroad in a different currency than their home one.

4.5 THE DOLLAR PROBLEM

1. All dollar amounts referred to in this Note are in United States Dollars ("U.S. Dollars"), and all amounts owing under this Note shall be paid in U.S. Dollars. All amounts denominated in other currencies (if any) shall be converted into the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Note, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation (it being understood and agreed that where an amount is calculated with reference to, or over, a period of time, the date of calculation shall be the final date of such period of time).

Notes

2. There is little new in this latest cycle of economic boom, panic, and bust. All of these cycles are linked to the life and death of the unstable post–World War II Bretton Woods monetary system. First came the crisis-ridden gold-dollar system from 1944 to 1971. Then came the rise of floating exchange rates and the world paper dollar standard from 1971 to the present associated with regular booms, panics, and busts bringing us down to this very day.
3. Between 2009 and 2011, the world experienced a major emerging market equity and economic boom but at the very same time, sluggish growth in the United States. Foreign authorities now react to inflation by raising interest rates. Why such a sluggish sequence in the U.S.? Because the Federal Reserve's vast credit creation of 2008–2010 could not be fully absorbed by the U.S. economy, coming as it did after a wild panic and a deep recession.
4. The unprecedented Fed credit expansion flooded into U.S. stocks, bonds, and commodities. Excess Federal Reserve credit and money also went abroad, causing not only a fall in the dollar but also the emerging market financial boom. What is the mechanism which links Fed credit expansion to the emerging market boom? It is simply this: financial authorities abroad purchase the incoming flood of excess dollars against the creation of their local currencies. There, the new local money is put to work promptly, creating a boom in all financial assets, and then a boom in the local economy as well.
5. The Federal Reserve is the de facto central bank of the world monetary system, because the paper dollar is the monetary standard of the world banking system. Expansive Fed credit policy especially Federal Reserve and foreign financing of the U.S. balance of payments deficit and the government budget deficit has been behind almost every boom and bust cycle since 1914. The cycle is engineered by the purchase of dollar-denominated securities by the Fed and foreign central banks, a process enabled by the opaque workings of the official world reserve currency system, based on the dollar.
6. After World War II the dollar-based Bretton Woods gold-exchange system, followed by the disorder of floating-pegged exchange rates, led to an overvalued dollar and to the diminution of our dominant manufacturing sector. Floating exchange rates because huge upward and downward currency moves, which abruptly reprise the entire productive machinery of nations subject to floating currencies? Thus, whole national economic sectors become unprofitable, making steady long-term investment and output very difficult. Subsequent underinvestment leads unavoidably to scarcity booms, fueled from cycle to cycle by Fed-subsidized credit to the banking system and to the deficit-ridden Treasury. Thus, the natural business cycle is intensified rather than moderated. To mitigate the perverse effects of floating exchange rates, many countries have pegged their undervalued currencies to an overvalued dollar in order to subsidize and sustain their export production machines. This is an ancient practice of predatory mercantilism.
7. It is obvious that the current Fed credit cycle, coming out of the 2008 economic bust, did finance a major equity and commodity boom from 2009 to 2011. The ultimate source of the equity and commodity inflation was the Fed's monetization of insolvent U.S. mortgage-backed securities and the Treasury deficit. But this outpouring of Federal Reserve credit to bail out the banks at home then leaks abroad.
8. There it is to be absorbed by foreign governments, and monetized by central banks in the form of official foreign exchange reserves. Invisible to the general population, these foreign official dollar reserves are then recycled back into the market for U.S. Treasury securities, whereby they finance both the perennial U.S. balance of payments deficit and the rising budget deficit. Abroad, the United States is, in effect, enabled to buy without paying. So is the U.S. Treasury.

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9. In addition to the recent Fed purchases of $600 billion of U.S. government securities in order to finance the government budget deficit, foreign financial authorities have to date purchased in total at least $3.5 trillion of U.S. government and agency securities, against which these foreign central banks created new domestic money and credit the penultimate trigger of past booms and busts in their home countries.

10. Foreign credit financing of the U.S. Treasury deficit comes in addition to the more than $1 trillion of U.S. government securities purchased by the Fed, and much more by the U.S. banking system. With such limitless bank credit financing available, the Treasury deficit will continue. The Treasury owns a unique credit card with no requirement to settle its debts. So long as there is unrestrained Fed and foreign credit available, the U.S. deficit will go on and on Jacques Rueff's infamous "deficit without tears."

11. The dollar-based world monetary system has been a leading cause of the increasing inequality of wealth in American society. To see how this is so, let us first consider the mechanism by which the Federal Reserve open market operations are at the epicenter of this economic disorder characterized by inflation, speculation, boom and bust.

12. In order to finance the government deficit, the Treasury now sells bills and bonds at a rate of about $120 billion per month or $1.5 trillion per year, an amount about equal to the present annual budget deficit. The Federal Reserve, the banking system, and foreign central banks purchase these Treasury bills and bonds against the issue of new money, or newly created credit. But during this same market period, the new money created to finance the U.S. government deficit is not associated with the production of any new goods, new services, new equities. Thus, during the market period in which the Treasury spends the newly issued money, total spending, or purchasing power, must exceed, in the same market period, the total value of goods and services at prevailing prices.

13. During the Fed credit expansion of 2009–2011, equities and commodities and food and fuel prices boomed in the U.S. market. Some of the Fed-created excess dollars went abroad, also creating a boom in financial assets in emerging economies. However, with so much unemployed labor in the United States, prices rose faster than wages. Thus, profits also rose. U.S. corporations are now awash in cash, but real wages of working people have declined even as corporate profit margins expand.

14. In this U.S. inflationary process, bankers and speculators are the first in line, along with the Treasury, to receive the near-zero-interest credit from the Federal Reserve. They are also first to get bailed out with new Fed money. Then, with the new money, the banks and brokers finance depressed stocks, bonds, and commodities front running, as in the past, an advertised Fed-created financial boom.

15. In each boom cycle, prices rise first for scarce and volatile goods. In the current cycle those goods are stocks, commodities, and financial claims because they are relatively liquid vehicles for speculators, brokers, and banks. The bulls congratulate themselves. The lost tribe of the bears capitulates. But in other credit cycles, the excess Fed-created money will move into real estate, as in 2004 - 2007, or Internet stocks, as in the late 1990s, or emerging market equities, as in 2009–2010, or wherever romance and relative prices entice investors and speculators with cheap, new Fed credit.

16. The gradual and insidious process of inflation is hidden at first from the vast majority of working people. For example, inflation today is muted in the United States at the consumer price level because of high unemployment and unused production facilities. These were both inherited from the last panic and bust a panic and a bust ultimately caused, of course, by belated, tight Federal Reserve credit policy in 2006–2007.

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17. Over many inflation cycles the social effects of financial disorder and the overvalued dollar have intensified inequality. The overvalued dollar subsidizes Chinese exports and the workers who produce them. The near-zero interest rates maintained by the Fed subsidize the bankers and their financial clients. A nimble financial class in possession of cheap credit can maneuver to protect itself against inflation, but the vast population of middle-income professionals and workers, on salaries and wages, as well as those on fixed incomes and pensions, are impoverished by this very same volatile, inflationary process. Worse yet, average American savers will earn a negative real return on their savings.

18. The age of inflation was inaugurated in 1914 by the onset of World War I. The Great War had brought to an end the preeminence of the classical European states system. It had decimated the flower of European youth. It had destroyed the European continent's industrial primacy. On the eve of the Great War the international gold standard was destroyed. The gold standard had been the monetary gyroscope of the Industrial Revolution and its extraordinary economic growth, marked by one hundred years of general price stability.

19. The general price level, almost literally, wound up at the same level in 1914 as it had almost one century before. Compare this with the forty-year period from 1971, the year President Nixon suspended dollar convertibility to gold. Adjusted for the Consumer Price Index (CPI), the dollar has in fact lost over 80 percent of its purchasing power since 1971.

20. In 1922, at the little-known post–World War I Monetary Conference of Genoa, the gold-exchange standard was officially embraced by academic and political elites. It was there that the dollar and the pound were confirmed as official reserve currencies, so that these national currencies might substitute for what was said to be a "scarcity" of gold. But there was no true scarcity only overvalued national currencies caused by the inflation of World War I.

21. The overvaluation, relative to the gold monetary standard, was maintained after World War I despite a doubling and tripling of the general price level in national currencies during the war. The greatest economist of the twentieth century, Jacques Rueff, warned in the 1920s of the dangers of this flawed official reserve currency system, designed "in camera" by the experts. Rueff predicted a collapse of this newly rigged official reserve currency system. And it did collapse, in 1929–1931, with catastrophic effects.

22. Rueff then predicted in 1960–1961 that the Bretton Woods jerry-rigged dollar system, a post–World War II form of the official reserve currency system, would collapse. Rueff warned that the world would groan under the flood-weight of excess American dollars going abroad. Throughout the 1960s, he wrote that Federal Reserve credit policy, combined with the official reserve currency status of the dollar, would cause permanent U.S. balance of payments deficits and a tendency to constant federal budget deficits. Underwritten by the "exorbitant privilege" of the world dollar standard, the twin deficits of the U.S. would be continually financed, at home and abroad, by expanding Federal Reserve and foreign central bank money and credit. In the April 1961 issue of Fortune magazine, Rueff foretold the end of gold convertibility for the dollar unless the monetary system was reformed. His prescience was confirmed when President Nixon suspended dollar convertibility to gold in August 1971.

4.6 THE HISTORICAL EVIDENCE OF STABILITY OF THE U.S. DOLLAR

The historical evidence shows that the stability of the U.S. dollar has varied widely in its history. This variation is explained by two factors: the monetary standard chosen for the dollar, and whether other countries have simultaneously used cash and securities payable in dollars as their own reserves, or even as their monetary standard itself (i.e., official reserve currencies in place of gold.) The United

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States has alternated between two kinds of standard money: inconvertible paper money, on the one hand, and precious metal (first silver, then gold), on the other. The dollar was an inconvertible paper money during and after the Revolutionary War (1776–1792), the War of 1812 (1812–1817), the Civil War and Reconstruction (1862–1879), and again from 1971 to the present. The dollar was effectively defined as a weight of silver (and gold) from 1792 to 1812 and 1817 to 1834, and as a weight of gold from 1834 to 1861 and 1879 to 1971. The minted gold eagle, set equal to ten dollars, was provided for in the Coinage Act of 1792. The dollar was not used by foreign monetary authorities as an official monetary reserve asset before 1913, but the dollar has been an official "reserve currency" for many countries since 1913 (along with the pound sterling). The dollar has been the primary official reserve currency for most countries since 1944.

Applying two criteria divides the monetary history of the United States into distinct phases. We can compare the stability of these monetary regimes by examining the variation in the Consumer Price Index (as reconstructed back to 1800) by two simple measures: long-term CPI stability (measured by the annual average change from beginning to end of the period of each monetary standard) and short-term CPI volatility (measured by the standard deviation of annual CPI changes during the period). Weighting these criteria equally, the classical gold standard from 1879 to 1914 was the most stable of all U.S. monetary regimes.

Free market institutions, grounded on the gold standard, were designed to mobilize the free price mechanism in order to act as the balance wheels of rapid economic growth for an increasingly integrated world economy. International trade among different cultures, various national currencies, and competitive nations was firmly based, despite cultural and language differences, on a common monetary standard defined in law as a weight unit of gold. All countries traded according to one objective yardstick of value. Under the rules, no one would have the power arbitrarily to depreciate the thirty-six-inch yardstick to twenty-nine inches one year, nor to manipulate it to thirty-nine inches the year after.

To restore long-term price stability and to sustain an equitable market for growing world trade, the dollar, a monetary yardstick, must again be defined in law as a precise weight unit of gold at a statutory convertibility rate which ensures that nominal wage rates do not fall. This stipulation is necessary in order to avoid unwitting deflations like those that ensued after World War I. Indeed, nothing but gold convertibility, a true gold standard without official reserve currencies, will yield a real monetary standard for the integrated world economy of today. Such a true and proven monetary standard provides simultaneously all the necessary functions of money, both domestic and international: that is to say, a long-term store of value for saving, a stable means of exchange for trading, and a stable unit of measure for comparing all other articles of wealth in the market. Moreover, the true gold standard is a proven integrator of the modern credit and banking system.

Like every standard of measurement the yardstick, the meter, the liter the monetary standard must be constant in order to maintain trust and confidence in an equitable and growing economic order. Further, only a common, non-national monetary standard can rule out manipulated floating exchange rates and unconstrained central banks themselves, the aggressive agents of predatory mercantilism. Despite all political denials, undervalued currencies and currency depreciations are today, without a doubt, designed to subsidize exports and to transfer unemployment to other nations, to beggar thy neighbor, and, by means of an undervalued currency, to gain market share in manufactured, labor-intensive, value-added, world-traded goods. If competitive depreciations and undervaluation continue, floating exchange rates combined with the United States' twin budget and trade deficits will at regular intervals blow up the world trading system.

If the reestablishment of dollar convertibility to gold is to happen, the project must become a cooperative effort of the major powers. To accomplish this reform, the U.S. must lead: first, to announce future convertibility, on a date certain, of the U.S. dollar the dollar itself to be defined in statute as a weight unit of gold. Second, a new Bretton Woods conference must be convened to establish mutual

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gold convertibility of the currencies of the major powers. Third, the curse of official reserve currencies must be ruled out, while at the same time a consolidation of official dollar reserves must be organized into long-term debt to be funded in the way Secretary of the Treasury Alexander Hamilton funded the volatile national and state debts at the birth of the American republic.

A dollar as good as gold is the way out of the monetary maze in which we are currently lost. The American Founders agree. Article I, Section 8, of the U.S. Constitution ordained that Congress had the power "to coin money" and to define uniform weights and measures. The U.S. Constitution in Article I, Section 10, further ordained that the states should make nothing but gold and silver coin a legal tender. The constitutional American monetary standard, therefore, should be a uniform weight and measure of gold (or silver), gold having proved itself the superior monetary standard for over a century. It is a great lesson of American history that the classical gold standard is in fact the constitutional American monetary system. With it, we can inaugurate a new industrial revolution to rebuild America's financial self-respect, to end inflation, and to restore American leadership in the world.

4.7 NATURE OF THE PROBLEM IN THE FIFTIES AND SEVENTIES

As the world slips once again into crisis, there is renewed discussion of the need to reform the global financial and monetary architecture.

1. The most basic element of the global system is the choice of the means of payment in cross-border transactions. It is an element that has been at the centre of the incremental process that determined international financial and monetary architecture in the past but slipped into non-priority status as a focus for reform after the collapse of the Bretton Woods regime in the early 1970s.
2. President Richard Nixon's decision to end the dollar's convertibility into gold ushered in a new international monetary system in which international payments would be made by private banks in the national currencies of the so-called 'strong' currency countries rather than exchanges of gold by central banks. The value of the currency most used in these transactions the US dollar was no longer fixed in relation to gold. After 1973, it was allowed to 'float' with its value determined by changes in the supply and demand for the currency.
3. In 1947 i.e., when India accomplished its independence, there were no outside borrowings on the balance sheet of India thus the value of Indian rupee was at parity with the US dollar. But Indian rupee went through two phase of devaluation and in August 2013 India economy was hit to bottom-most level. As a result of which India rupee fall below 68.75 per US dollar mark which means Indian rupee had chronicled a record low of 69 times against the past 68 years since independence in 1947.
4. The history of different factors resulted in the two time devaluation of Indian rupee since Independence, current Dollar vs. Indian rupee conversion and forecast of Dollar vs. Indian rupee conversion for 2015.
5. Though at the time independence i.e., on 15th August 1947 the exchange rate between Indian rupee and US Dollar was equal to one (i.e., I US Dollar = 1 Indian Rupee). As there was no outside borrowing/ loans on the balance sheet of India. But when British left India, Indian economy was in a paralyzed and begging state thus under the resilient leadership of then Prime Minister of India Pandit Jawahar Lal Nehru, the path of overall development of India was developed and formulated in the form of five year plan to address below problems:

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Poverty

Foreign Trade

Necessity of fast industrialization

Increase in population

Growth and improvement of natural resources

Capital insufficiency and market limitations

6. The first five year plan (1951 – 1956) was introduced to revitalize Indian economy and improve the standard of living of Indian people by prudent usage of natural resources and thus the overall development of Indian and its people by who suffered during British régime.

7. For the rejuvenation of Indian economy and its people under the path of five year plan, from 1950 Indian government continuously borrowed foreign money in the form of outside borrowing/ loan which increased to the utmost magnitude in 1960s. Additionally, Indian government was facing budget deficit and was in a state that it could not borrow more additional loan from outside due to negative rate of savings.

8. Thus, resulted in the devaluation of Indian rupee. Up till now 1 US Dollar is equal to 4 Indian Rupee. But this drift was worsened in 1966 by two factors: Firstly, two wars faced by India i.e., Indo-China war in 1962 and Indo-Pakistan war of 1965; and Secondly, major drought faced by India between 1965/66 which resulted in severe rise in prices and a drastic increase in inflation. Thus, it became mandatory for Indian government to devalue Indian rupee majorly for the first time in 1966 to import weapons i.e., precursor of a path of liberalization and thus opening of Indian economy for foreign trade. And, as a result of which Indian Rupee was devalued to 1 USD = 7 INR in 1966 under the leadership of then Prime Minister of India Mrs. Indira Gandhi.

9. From 1970s till 1980s, US Dollar continued to grow stronger against Indian Rupee due to many reasons. Firstly, inability of Indian politics to inject a catalyst of robust growth in the Indian economy due to incompetency in stabilizing cordial business relation with US which was coupled with robust and sturdy economic development of US. As up till now India was dependent majorly on Soviet Union for exports.

10. When Soviet Union was divided into 15 small nations in 1991 then India's exports were down considerably. In addition to that, India was dependent on West Asia for oil imports, South Africa for gold, US for technology and South-east Asia for vegetable oil etc. And, to buy these items global trade currency was US dollar and the only solution of earning dollars is by exporting adequate amount of good in the world market. Till 1970s, the exchange rate was 1 US Dollar = 7.47 INR which went up by 1 USD = 8.41 INR in 1975, after the political instability due to assassination of then Prime Minister Mrs. Indira Gandhi in 1984. Secondly, after the assassination of Mrs. Indira Gandhi, Rajiv Gandhi was then elected as the Prime Minister of India. But Rajiv Gandhi was failed to introduce necessary steps for the robust development of Indian economy as well as was caught to be involved in couple of scams (i.e., Bofors, IPKF misadventure, Shah Bano case etc). All this trouble resulted in sinking value of Indian Rupee which recorded a new low of 1 USD = 12.34 INR in 1985 and in the 1990 it increased to 1 USD = 17.50 INR.

11. Since 1973, the dollar has had its ups and downs: a substantial fall at the end of the 1970s, a large appreciation beginning in 1983, an engineered decline after 1985 and a period of steady strength from 1994 until 2002. In the 1990s, the dollar's dominant role in the global economy was unchallenged. Measures of that dominance included the rising amount of dollar debt owed both to foreign and domestic creditors by borrowers in countries other than the USA, the share

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of dollar assets in international reserve holdings, the amount of US currency held and exchanged outside the USA by residents of other countries and the impact of changes in US interest rates and the value of the dollar on developments in other economies around the world.

12. While the key-currency status of the dollar appeared to offer significant advantages for the USA, questions about its sustainability have been raised almost since its inception. Any country that issues the global medium of exchange will experience capital inflows and the resulting investments in its credit instruments will increase the availability of credit and allow its residents to spend more and save less. But the steady stream of capital inflows can only continue if the key currency country is able or willing to run the trade deficits that allow other countries to earn the currency they hold as international reserves.

13. Over time, growing imbalances between the external debt of the key currency country and the surpluses of other countries tend to push the system to breaking point. The ballooning internal debt of the reserve currency country particularly of its household sector strains its capacity to import and undermines the value of its currency both literally and in terms of its role in the global economy.

14. So far, concerns about global payments imbalances have provoked little interest in monetary reform. There has been a widespread assumption that, after this period of economic and financial turmoil has passed, the euro will increase its share in the international monetary system and the current strong-currency regime will continue. But Europe is unlikely to assume the US role of importer of last resort and if no country or region is willing to run the trade deficits that provide the opportunity for other countries to earn the preferred reserve currency, a global system based on national currencies cannot continue. Over the next decade, it will either be replaced by conscious planning or transformed by the effort to adapt to the ever-larger crises that are fuelled by an unstable international monetary regime.

15. In short, for both industrializing and underdeveloped countries, the 'managed' gold standard resulted in some of the same seeming benefits and real problems as the current fiat currency reserve system. It 'worked' in part because of the immense increase in the supply of gold in the period from 1849 through the early 1900s. Nevertheless, as the emphasis on the management of the system suggests, it was actually sterling credit and capital markets in London not gold that underpinned the system. In any event, the period from 1970 to 1914 produced a remarkable increase in growth in the industrializing countries by facilitating an expansion in domestic money that resulted in increased spending, trade and investment. The expansion in cross-border trade and investment was unmatched until the 1980s.

4.8 THE GOLD EXCHANGE STANDARD

It is probable that the success of the gold standard also depended on a parallel development that emerged out of the mechanisms the industrializing countries used to 'manage' the gold standard the development of the gold exchange standard. This monetary system differs from the gold standard in that international reserves consist of both gold and convertible currencies so that the system can function with less gold. Another difference is that, because those convertible currencies tend to be invested in interest-bearing financial assets, the gold exchange standard includes a mechanism that allows for growth in world reserves independent of increases in gold production.

The use of a mixture of foreign exchange assets and gold as components of reserve holdings was not just a post-World War I phenomenon. The Scandanavian countries had entered into agreements to use one another's currencies as early as 1885. By 1913, some 15 central banks held about 12% of their reserves in the form of foreign exchange assets.

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The mechanisms for settlement of foreign exchange holdings evolved throughout Europe with the development of financial markets and central banks. A government (treasury or central bank) bought and sold foreign exchange in transactions with its own private sector, becoming the creditor by drawing down or building up its own holdings of foreign exchange. This permitted the development of a larger role for the public sector in controlling international payments as these transactions replaced the earlier and less efficient transfers of gold reserves to net out holdings of bills of exchange between private banks in different countries. Thus, the addition of convertible currency assets as components of international reserves constituted a significant revision of the rules of the game in international payments that persisted until the collapse of Bretton Woods in 1971.

Very few countries had returned to the gold standard after World War I. The USA by then a creditor rather than debtor nation was a notable exception. Coping with economies damaged by war, rising prices, the movement of gold reserves to the USA and a fall in gold production, European countries sought some means to regain currency convertibility and, in 1922, held a monetary conference in Genoa that recommended the use of foreign exchange reserves to economies on gold. Again, there was no international agreement involved but some countries acted legislatively on this recommendation at the national level and many others simply resumed the practice of buying foreign exchange from their own financial institutions. The Bank of England resumed gold convertibility in 1926 (at the pre-war rate) and was able to persuade some other European countries to do the same. Nevertheless, most industrial countries continued to rely on acquiring holdings of foreign exchange assets to build up their reserves and, by the end of the 1920s, foreign exchange reserves constituted about 42% of total reserves of 25 countries.

The rise in holdings of foreign exchange reserves became a critical channel for the transmission of economic collapse in the 1930s. Inflows to the USA had climbed in the late 1920s with foreign funds attracted by returns on call loans during the stock market boom. Observing the shift in capital flows, John Maynard Keynes (1930) noted this change in the direction of capital flows as a shift from 'transactions circulation' to 'financial circulation'. With the market's collapse, losses by foreign investors affected their own national economies. But the collapse of reserves had an even greater impact. Between 1929 and 1931, foreign exchange reserves fell to 27% of total reserves and fell further to 8% by 1932.

France played a major role in initiating the extinction of reserves. Having undervalued the franc when it returned to convertibility in 1926, it ran large trade surpluses and amassed huge foreign exchange holdings, mostly in sterling and dollars. With legislators growing concerned about the size of these holdings, a law was passed in 1928 prohibiting further acquisitions of foreign exchange reserves. In 1928 and in 1929 when negotiations on reducing reparations payments by Germany (which France opposed) were underway, France sold its holding of deutschmark assets and forced Germany to suspend convertibility. At the same time, French withdrawals of sterling drove up the Bank of England's discount rate. The credit strain in London resulted in foreign loans being called and contributed to the $120 million drop in call loans in New York in August 1929.

As economic conditions deteriorated worldwide, the Bank of France began to convert its existing stock of foreign exchange reserves into gold in 1931. Its sales of sterling set off sales by other countries that were required by law to hold only foreign exchange assets convertible into gold. These countries feared that France's sales would force the UK to suspend convertibility and, after they had precipitated a run on the Bank of England, the UK did, in fact, suspend convertibility on 21 September 1931. Unable to dispose of sterling, many of these countries converted sterling holdings into dollars and, even though the dollar remained convertible, they exchanged dollars for gold. From mid-September to the end of October 1931, the Federal Reserve lost $755 million of gold, $350 million taken by France and the rest by Belgium, Switzerland and the Netherlands. The Fed responded by raising the discount rate from 1.5% to 3.5% a move that is generally viewed as deepening the US depression and that of the rest of the world outside the sterling block.

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By 1932, global reserves had contracted by one-third. The loss of reserves put severe downward pressure on money stocks and credit in national economies and resulted in a sharp contraction in cross-border trade and investment. In the next several years, the contraction in reserves was offset to some degree by competitive devaluations (including the US dollar in April 1933) that raised the value of gold reserves and permitted some re-expansion of money stocks. But it was more than a decade after the end of World War II before money stocks in Europe returned to previous levels.

The great deflationary spiral from 1931 to 1933 effectively ended the multilateral world in which trade and investment had flourished. Germany imposed exchange controls and entered into bilateral trading arrangements that included barter as a way of bypassing the international monetary constraints that had blocked its access to international borrowing. Other European countries retreated into trading blocs enforced by tariffs and quotas.

4.9 BRETTON WOODS: THE DOLLAR EXCHANGE RATE REGIME

The adoption of an exchange standard that included both gold and foreign exchange by many of the major countries after World War I paved the way for the use of this model after the World War II. The international monetary system set in place at Bretton Woods differed from the gold exchange standard, however, in that, as Joseph Gold noted, it was in practice 'a solar system in which the US dollar was the sun'. The USA committed to exchange dollars for gold at the rate of $35 an ounce and other currencies were to keep their par values at a given relationship to the dollar. The burden of intervention was to be borne by the non-reserve currency countries. The value of the dollar was fixed but the value of other currencies, determined by the market, could appreciate or depreciate by 2% without the requirement to intervene.

As noted, the dollar had been devalued in 1933 and was no longer convertible domestically. The amount of gold the Federal Reserve was required to hold as backing for Federal Reserve notes had also been reduced and, at the international level, the dollar was only convertible in transactions between central banks or other government agencies, not in transactions with private foreign holders of dollars.

Much has been written about the competing British and American plans for the post-war system and the following is a very superficial account of these plans and the political and economic objectives they embodied. Given its large external debt accrued during the war to the colonies and dominions in the sterling bloc, a major concern for the UK was to protect sterling by gaining access to credit to fund its debt and prevent a run on its gold reserves. Keynes and others in the UK Treasury saw exchange controls as necessary to curb speculative flights and while the USA did not adopt controls, they were permitted in the final agreement and adopted by the UK and other European countries.

Keynes' International Clearing Union (ICU) reflected his belief that the key problem in the international system was the lack of liquidity. He saw the need to construct a system that would favour expansion rather than contraction and one that would not restrain domestic policy. In addition, the ICU was structured to avoid creating a system that relied on one or more dominant currencies as reserve assets to minimise governmental influence and prevent a repetition of the collapse of foreign exchange reserves that had occurred in the period 1928–32. It was to be a multilateral system with automatic overdrafts based on the relative size of a country's trade. Foreign exchange reserves were to be concentrated in national central banks with purchases and sales of currencies among central banks only through accounts with the ICU that were to be denominated in 'bancor'. The accounts of both debtors and creditors would be interest-bearing so that the burden of adjustment would fall on both. Creditor countries would make deposits of current account surpluses they did not wish to spend and thus create an additional supply of funds for debtor countries to borrow.

The original US proposal offered by Harry Dexter White was based on the structure of the exchange stabilisation fund the USA had created when it devalued gold in 1933. It proposed to use repurchase agreements to make swaps rather than loans to deficit countries. Like Keynes, White saw the ability to provide liquidity as a major objective of the fund but he was more concerned than Keynes with exchange rate stability. Since US interests were more aligned with investment than with trade, White and others in the US Treasury were unwilling to be lenient about the right to devalue or accept currency fluctuations. He proposed a role for the dollar as the unit of account in the system but, unlike Keynes, designed an active rather than a passive role for the fund. In his view, subscriptions to the fund should be made in transferable securities rather than currencies that would allow it to conduct open market operations.

Neither of these plans was adopted and some of their more important benefits did not survive to be incorporated in the final structure of the monetary system and the International Monetary Fund (IMF) that was to administer it. For example, a major advantage in the structure of the ICU compared with that of the IMF was that the ICU could use the resources contributed by all surplus country depositors as well as the contributions to its capital base, whereas the contribution of nonconvertible currencies to the Fund has limited its ability to lend and made it overly reliant on US dollar contributions. Another is that both Keynes and White agreed that policy conditions should only apply ex post after a borrower's needs were met and only if that borrower were unable to take appropriate action or were unable to repay. Their position on conditionality was, in fact, reflected in the initial framework for the IMF. It was only in the 1950s that the Executive Board of the IMF 'introduced the conditional lending that gradually became standard practice'.

Also missing from the final agreement was the automaticity and apolitical structure that Keynes envisioned. It is likely that either his overdraft plan or White's swaps would have provided liquidity in a more timely fashion than the IMF's quota-based lending. But another serious loss was White's proposal for subscriptions of transferable securities to provide the framework for countercyclical open market operations. This would have made the International Stabilisation Fund a true lender of last resort unlike the IMF that depends on contributions of taxpayer funds and, like Keynes's ICU, plays an essentially passive role in international transactions.

The absence of countercyclical mechanisms is the weakest aspect of Keynes' ICU proposal and one that must be addressed by those who would revive it in some form. William R. White (2007) suggests that Keynes had doubts about the efficacy of monetary policy in deep recessions and so recommended (indeed, invented) fiscal policy at the national level as the primary tool for stabilisation. Another possible explanation is that, accustomed as he was to the overdraft mechanism in the British monetary system, Keynes underrated the open market tools that the Federal Reserve had invented to conduct countercyclical operations in the 1920s and that, after being abandoned in 1928, had been revived in the mid-1930s.

4.10 THE EARLY YEARS OF THE BRETTON WOODS MONETARY SYSTEM

The new system originally envisioned the dollar's role as that of an international unit of account. That function for the dollar required that the dollar/gold exchange rate be fixed and unchangeable. But the absence of rival currencies convertible into gold ensured that the dollar would also emerge as an international medium of exchange used in transactions between third countries and an international store of value for private investment. A larger role for the dollar was inevitable given the reality of US economic power at the end of World War II. The US accounted for 60% of world output, owned 60% of the world's gold reserves, had modest import requirements and was able to produce much of what the rest of the world needed to resume economic growth. Nevertheless, as necessary as this role was at the time, it required the USA to subordinate fiscal and monetary policy to the objective of ensuring exchange

Notes rate stability. And, as proved to be the case, it was an objective that the US or any other country could not meet over time.

In the immediate post-war period, most countries continued to operate under the pre-war rules of the gold exchange standard. Legal restrictions in some countries prohibited holding foreign exchange as reserves unless the foreign currency was convertible into gold. Europe and Japan did not have enough gold to permit convertibility so they could not pay for trade or permit loans in their currencies. Since the dollar was convertible and could be held as a reserve, dollar loans and grants under the Marshall Plan allowed Europe and Japan to build foreign exchange reserves.

Moreover, the establishment of a European Payments Union in 1950 with a $500 million capital grant from the USA alleviated the problem in terms of trade within Europe. Intra-European trade imbalances were settled through extensions of credit rather than exchanges of dollars or gold under a system of quotas or tranches for individual countries. The Payments Union ended in 1958 when Europe returned to current account convertibility (as did Japan in 1964) but it had facilitated a more even distribution of reserves, helped rebuild Europe, fostered a sense of community and laid the foundations for the establishment of the European Economic Community in 1957.

Nevertheless, there was real constraint on trade and investment during this period. Without convertibility, private financial institutions could not move funds across borders. All financial flows had to originate in the hegemon's national market and, initially, were largely government-to-government flows. Subsequently, governments began raising funds from private institutions in the US national market, holding dollars as reserves to back the creation of domestic money to be allocated at home. Thus, in the period before 1958, the inability of the major industrial countries to participate in the international monetary system required governments to undertake the role of intermediaries in managing financial flows.

4.11 THE UNRAVELLING OF BRETTON WOODS

The advent of convertibility in 1958, there was an increase in US private capital flows to Europe and later, to Japan. But the return flow to the US public and private was greater. Dollar reserves had to be invested in US financial assets to earn interest and as earnings on reserves augmented the supply, the amount of investments in US financial assets also grew. Private dollar holdings were also returned to the US and held as working balances with US banks to pay for trade with the US and third countries. Surplus private funds were invested in time deposits or money market assets or Treasury bills. In time, the return flow of dollars to the US provided more credit than its economy could use. The outcome was lower US interest rates, economic expansion and a rising rate of inflation. Excessive inflows also encouraged an even larger volume of capital outflows by US residents that put pressure on the dollar exchange rate. In short, the 'dollar shortage' of the 1950s rapidly became the 'dollar glut' of the 1970s.

The first dollar crisis erupted in 1960 with speculative sales of dollars for other currencies and some official demand for gold in expectation of devaluation. Despite the sudden turmoil the crisis created, the USA would not be willing to devalue for another decade. Its attempts to counter pressure on the dollar included a monetary response known as 'Operation Twist'2 in 1961 followed by the inauguration of a series of capital controls as the decade progressed. The first of these, the interest equalization tax, taxed US residents' holdings of foreign securities issued in the USA to reflect the higher interest foreign issuers would have paid in their own countries. The effect of the tax was to move dollar issues offshore to the Eurobond market reduce capital outflows and seemingly reduce pressure on the dollar.

The creation and expansion of the so-called Euromarkets in London and other financial centres was seen as a way to 'manage' the dollar glut. Dollars (and other strong currencies) could be borrowed and loaned outside the US national market for transactions involving both US and non-US residents and would not appear as US transactions on its international balance sheet. What was not understood initially

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was that those offshore transactions would nevertheless affect the exchange rate for the dollar; that they would change the demand for dollars as effectively as transactions in the national market that involved capital flows and would tend to expand foreign holdings of dollars if other currencies were not used for cross-border transactions.

Overall, US efforts did not succeed in balancing its external accounts. The second run on the dollar occurred in 1967, prompting the Fed to raise interest rates to attract foreign funds and dampen the economy. While capital controls were limiting outflows by banks, they responded to higher rates by bringing in funds from their foreign branches for lending in the USA. But, as rates declined, US banks ignored the voluntary restraint programme and moved funds back to the Euromarket a move that prompted the next dollar crisis in 1969 and what was called a monetary 'jolt' as the French franc devalued by 10% and speculative flows pushed up the value of the deutschmark by 10%. The countries of the European Economic Community (EEC) responded to the renewed turmoil by imposing capital controls and recommending a revival of the credit system for settling balances under the 1950s Payments Union.

As the unsustainability of the dollar/gold exchange rate system became increasingly obvious in the 1960s, Robert Triffin led the way in calling attention to the need for a post-Bretton Woods system. His proposals were an integral part of the discussions that led to the Rio Agreement in 1967, which authorised the IMF to create and issue SDRs. Although he was highly critical of the Rio Agreement, Triffin believed that its central achievement the creation of new reserve assets to strengthen the balance of payments adjustment mechanism was a first step in the right direction. Nevertheless, he warned that it would not constitute a viable reform effort if it failed to take a more comprehensive approach in assigning roles to all three components of reserves gold, foreign exchange and collectively created assets especially since gold would certainly be demonetised internationally as it had been nationally since the 1930s.

Triffin argued that the central flaw in the Bretton Woods Agreement was the conversion problem. As the USA accumulated IOUs, the conversion of these obligations into gold posed a growing threat to the system. But avoiding conversion (as some academics and US officials favoured) threatened to force the rest of the world into the dollar area. In Triffin's view, 'the alternative to the gold standard is not a dollar standard unilaterally run and managed by the United States alone, but a true international standard, calling for concerted decisions and management by all participating countries'.

Triffin's created reserve assets were similar to the reserve asset Keynes called 'bancor' in his 1940s proposal. Unlike Keynes, however, Triffin linked the distributions of reserve creation to development finance. But the major industrial countries with the majority of votes in the IMF linked the distribution of SDRs to the size of existing quotas. Triffin complained that this decision was 'as indefensible economically as it morally', especially since two of the richest countries in the world (the USA and the UK) were assigned about one-third of the total.

SDRs are valued in relation to a basket of currencies and are the unit of account in which all IMF transactions and obligations are denominated. They can be exchanged for another country's currency at the direction of the Fund or by mutual agreement. They can also be used in swaps, loans and to settle financial obligations among member countries and between members and the Fund. The IMF's Articles of Agreement state the intention of making SDRs the principal reserve asset in the international monetary system and many more recent reform proposals have called for new issues of SDRs. But the fact that new SDRs have not been issued reflects, in part, the initial decision to allocate so large a share to the USA. That decision effectively destroyed the potential of the SDR to assume an important role in the system since its enormous holdings made the USA reluctant to exchange dollars for SDRs offered by other countries and thus to forge the needed link between the reserve asset and the medium of exchange. Moreover, SDRs were designed for a closed system where international liquidity was created, controlled and distributed among and between central banks and the Fund. After 1971, the control and distribution of international liquidity passed to the private sector.

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4.12 THE DOLLAR PROBLEMS AND ITS IMPACT ON THE WORLD MONETARY SYSTEM

In 1971, the dollar came under pressure from actions by Germany and France and the Bank of England's need to convert $700 million into gold to alleviate pressure on sterling. Foreseeing a run on the dollar, President Nixon closed the gold window in August, ending dollar convertibility. At a meeting of the G10 nations at the Smithsonian Institution in December, the USA announced a devaluation of the dollar to $38 to an ounce of gold, imposed a 10% tariff surcharge on Japanese imports and negotiated upward revaluations of the deutschmark, the yen and the Swiss franc. It also negotiated smaller revaluations of the Belgian franc and the Dutch guilder and even smaller revaluations of the pound, the Italian lira and the Swedish krone ensuring the success of the negotiations by permitting these currencies to devalue relative to the mark, yen and Swiss franc even as they appreciated relative to the dollar. In addition, the G10 agreed that dollar reserves would be held in the USA, not in the Euromarkets, as investments in US Treasury securities.

The Smithsonian Agreement was short-lived. Another, much larger run against the dollar took place in February 1973 and prompted $10 billion of intervention by central banks in an attempt to stabilise foreign exchange markets. Exchange markets were closed in March and the USA took unilateral action, devaluing the dollar to $42.50 for an ounce of gold, letting its currency float and, in 1974, ending capital controls. US officials and academics who had argued that the market should set the price of the dollar had prevailed.

There were several important byproducts of these years of monetary turmoil. Intervention by major central banks to support the value of the dollar (or prevent the appreciation of their currencies) resulted in a massive increase in foreign exchange reserves in the period 1970–74 (an increase of 65% in 1971 alone) (Dam, 1982). The result was an equally massive increase in international liquidity that ignited ongoing inflation in the USA and other countries throughout the 1970s.

Another outcome was that public sector influence over international monetary developments was substantially eroded as control of the international payments system and balance-of-payments financing shifted from national central banks to transnational private banks. The result was precipitous growth in the external (Euro) markets and a rising volume of cross-border capital flows that dwarfed the volume of trade.

In response to these developments, European economists issued a manifesto on 1 November 1975, calling for monetary union. An EEC study group report issued in 1977 supported the commitment to resolving monetary instability by the leaders of Germany (Helmut Schmidt) and France (Giscard d'Estaing). The next step was the formation of the European Monetary System (EMS) in December 1978 and the introduction of a new unit of account the ecu based on a basket of currencies. The EMS provided a set of rules to aid in narrowing fluctuations of national exchange rates and, like the earlier Payments Union, created a system of credit facilities for mutual payments support.

Twenty years elapsed between the introduction of the EMS and the full monetary integration that occurred at the end of the millennium with the adoption of a single currency by a majority of the states in the European Union. As a group of nations heavily involved in and dependent on trade, Europe's objective was to revive the exchange rate stability that it had enjoyed before World War I. The single currency has provided that stability within the euro area but has by no means sheltered it from effects of monetary developments outside its borders. Nevertheless, European nations have avoided taking the lead in calling for reform of the international monetary system. It may be that their reluctance is fear that tampering with the existing system might cause some unravelling of their own hard-won regional arrangement.

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4.13 THE PROPOSAL FOR AN INTERNATIONAL COMMODITY RESERVE CURRENCY

Kaldor himself was one of the more important spokesmen for reform in the 1960s and 1970s. In 1964, he, along with A. G. Hart and J. Tinbergen submitted a paper to the United Nations Conference on Trade and Development that proposed a version of a plan for a new world currency that Benjamin Graham had submitted to participants at Bretton Woods in 1944. Graham's initial work in the monetary field offered a plan for a new US domestic currency in the form of receipts issued by a commodity storage facility. The objective of both his domestic plan and the international version was to ensure monetary stability through countercyclical mechanisms, preserve the link between monetary issuance and the real economy, and back currency issues with a class of financial assets that would be less likely to divert monetary resources into speculative activities.

While based on the Graham proposal, the international commodity reserve currency proposed by Hart, Kaldor and Tinbergen was structured to move beyond Graham's intent to stabilise the money price level of commodities. It proposed creating a universal reserve medium that could provide stability in real value by monetising a bundle of primary commodities. Its objectives included adapting the world monetary structure to changes in world production and trade and contributing to the stabilisation of prices and trade in primary products.

The Hart, Kaldor and Tinbergen paper offered a critique of the Triffin proposal to have the IMF create a reserve currency. In their view, this would involve a serious surrender of sovereignty since it proposed to set up a supra-national central bank engaged in credit creation and empowered to issue an international paper currency that could not be regulated by fully automatic rules.

The International Commodity Fund (ICF) these three distinguished economists proposed was, like Triffin's plan, based on the assumption of a continuation of the Bretton Woods agreements for settling payments balances between countries through their central banks and maintaining capital controls. Unless these conditions were reinstated, their proposal that only central banks could hold the reserve unit issued by the ICF would limit its use in settling payments imbalances. Like the SDR, a commodity reserve currency issued by an ICF would be marginalised if it is issued in a predominantly privatised system. Nevertheless, if public control of settling payments balances were revived, a commodity reserve system would, as Kaldor (1976) points out, enable national central banks to expand the conduct of open market operations beyond the current limited menu of securities and into commodity markets.

4.14 PROPOSALS FOR NEW ISSUES OF SDRS

Since Triffin's initial proposal in the 1960s, there have been numerous calls to revive issuance of SDRs. The objective of these proposals is to move beyond the key currency system by creating an international reserve unit under multilateral governance. While new issues of SDRS are obviously looked on with favour as a mechanism for expanding reserves, they would remove the credit-generating attribute of foreign exchange reserves that introduced a procyclical aspect to reserve holdings and exacerbated booms and downturns as discussed above. Moreover, using the SDR as a reserve currency assumes that national central banks will continue to issue national currencies and that reform can be accomplished without the loss of national sovereignty. But while the SDR could be used in transactions among central banks and with the Fund and, like the ecu created by the EMS, could serve as a unit of account in private transactions it could not be used to finance transactions with the private sector. Thus, if country A suffered a natural disaster, it could not use its reserves to buy blankets and medical supplies in country B unless country B were willing to exchange country A's SDRs for country B currency.

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In an effort to overcome this problem, Joseph Stiglitz proposed creating 'global greenbacks' real money SDRs as he described them initially to be granted to developing countries and countries with financial difficulties in order to finance global public goods and free (or supplement) developing countries' reserves by converting the greenbacks into hard currencies to service debts and finance imports. While this proposal was narrow in its emphasis on dealing with debt and developing countries, his more recent proposals have been broader in scope. In Making Globalization Work, he describes his global greenbacks system as one in which new reserves could be created every year and would not be given largely to the wealthiest countries. He proposes the creation of a trust fund of conventional hard currencies to enable countries in crisis to exchange their global greenbacks for currencies that can be used to pay private creditors and for imports. But he adds that a more ambitious version of the system 'would allow global greenbacks to be held by individuals, in which case there would be a market price for them and they could be treated like any other hard currency'.

Unlike other proponents of SDR issues, Stiglitz acknowledges the need to forge a link between a reserve asset not based on national currencies and the currencies used in private international transactions. His proposal improves on the current system for exchanging SDRs for hard currencies in that the pool of hard currencies that would be created would be used at the direction of the IMF rather than the national central banks that issue those currencies. Nevertheless, the trust fund would necessarily rely on contributions from those countries and he does not suggest how the IMF would ensure that their contributions would be sufficient to create a pool large enough to be effective in managing crises.

As for the more ambitious proposal to allow the global greenback to evolve into a transactions currency, Stiglitz is vague on the institutional arrangements that would be required. One assumes that global greenbacks would not be issued directly to individuals or private institutions but might leak into the payments system through sales to private institutions by central banks. They could, of course, also be used to denominate private transactions without actually being exchanged at settlement as was done prior to the inauguration of the European Monetary Union.

These, and perhaps other ways of using a more plentiful supply of SDRs in trade and debt-servicing transactions, might constitute an effective incremental path toward substituting an international unit of account for national currencies as both the primary reserve asset and means of payment in the international system. As discussed below, the SDR has the virtue of already being incorporated into the international monetary system and additional creative proposals on how it could be used in managing the current crisis appear to constitute the most fruitful path toward reform. But as these proposals are developed, they must place restraints on the role of the private financial system in pricing or distributing SDRs or similar reserve assets. Failure to do so would likely expose the reserve asset once again to the perils of speculation. Given the damage done by the process of privatising the international monetary system since the 1970s, the debate on reform must include discussions of the appropriate criteria for determining changes in exchange rates and how those determinations should be made.

4.15 CREATING A PUBLIC INTERNATIONAL INVESTMENT FUND FOR EMERGING ECONOMIES

The spillover effects of the investment of emerging economies' current account surpluses in the USA and other major national and international financial markets assured not only that these poorer countries would be financing the rich but that some portion of those funds would be recycled back to those same creditor economies in the form of foreign acquisition and ownership of their financial assets and productive facilities. This channel for the reflow of these countries' savings does not always reflect investment strategies that are concerned with development. In fact, portfolio and direct investment by foreigners necessarily entails the need for returns to reward the individuals and institutions that have

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acquired ownership of these assets and tends to encourage and facilitate export strategies that increase the accumulation of external currencies. In view of this aspect of the reserve accumulation process, one of the more pressing issues in dealing with global imbalances is to find ways to recycle these countries' savings back into their own economies in support of development strategies that increase demand and income more equitably and reduce dependence on export-led growth.

With the phenomenal growth in the assets of institutional investors in developed countries in the 1990s, foreign portfolio investment became a more important form of inflows into emerging market countries than bank loans. In most cases, however, inflows into evolving securities markets tended to change prices and exacerbate volatility in secondary markets rather than provide long-term financing for economic expansion, while outflows often triggered or intensified currency crises. Moreover, many developing countries that need long-term financing for infrastructure and other basic components of development strategies do not have markets that can absorb foreign investment flows or the credit standing to attract them. What is needed is a new channel for portfolio investment to provide flows that are stable, in amounts appropriate to the size of a country's economy and directed more toward the goals of development than short-term profits for investors.

Such a channel could be constructed by creating one or more closed-end funds for emerging market investment as a separate institution under the Bretton Woods umbrella.10 These funds would issue their own liabilities in a variety of national currencies and use the proceeds to pay for stocks and bonds of private enterprises and public agencies denominated in local currencies in a wide spectrum of developing countries. The funds' liabilities would be marketed both to private institutional investors in advanced economies and official investors from emerging economies and they would also qualify as international reserves, guaranteed by a multinational agency and its member countries. Investing the reserves of developing countries in these funds would redirect external savings back into the economies of the countries that own them rather than into the financial markets of strong currency countries. Moreover, their closed-end structure would ensure that long-term funds would be provided and that sales of the funds' liabilities by investors would not force redemptions that would disrupt development projects.

Like proposals for additional issues of SDRs, a major objective of these investment funds is to inaugurate a meaningful shift into a non-national reserve asset and phase out a system in which the choice of financial assets as reserve holdings centres on a few countries whose wealth supports the strength of their currencies. One incentive for developing countries to hold these securities as reserves is that they would provide a multilateral (rather than unilateral) guarantee from industrial countries and, in time, from wealthier emerging economies.

4.16 REFORMING THE INTERNATIONAL PAYMENTS SYSTEM

The use multilateral credit liabilities as reserve assets is incremental in nature and, while it addresses a critical flaw in the current international monetary system, an equally critical one the means of payment would still need to be addressed. Permitting the continuation of a key or strong currency regime for cross-border transactions would perpetuate the export-led growth paradigm by requiring the majority of countries to shape their economies to ensure that they can earn or borrow key currencies to engage in external trade and investment. It also requires the key currency country to import more than it exports to meet the demand for its currency and accept the resulting current account deficits and build-up in debt described by Kaldor in 1971. The global economy can only regain balance if every country is able to use its own currency, backed by the wealth created within its own borders, to participate in the global economy.

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One way to achieve this objective would be to mine Keynes' Bretton Woods proposal to create a new institutional framework. While Keynes' overall proposal was designed for a very different world, the basic structure in his concept an international clearing agency (ICA) could be revised to serve as the institutional platform for a new global payments system that would foster egalitarian interactions and more balanced outcomes.

The new ICA would clear transactions denominated in members' own currencies by crediting and debiting their clearing accounts. These clearing accounts would, in fact, constitute the international reserves of the system, held for the member countries by the ICA and valued using a trade-weighted basket of all members' currencies. Thus, the clearing process would change the ownership of reserves and reinstate the original intent of the Bretton Woods Agreement to maintain public control of international payments. It would also permit exchange rate adjustments over a set period of time in response to changes in reserve levels, preserving the valid role of market forces in shaping currency values through trade and investment flows while ensuring that speculators would no longer dominate the process.

A revised ICA proposal could also reintroduce Harry D. White's Bretton Woods proposal to authorise open market operations by an international agency. It would do so by permitting the new clearing agency to acquire government securities from its member countries to back their reserve holdings. This would give the ICA means to buy or sell these securities to help national authorities correct imbalances and promote stability. In addition, when approved by a super-majority of its member countries, the ICA's money creating powers would also allow it to operate as a true lender-of-last-resort a role the IMF cannot play given its dependence on taxpayer contributions. In this capacity, the ICA could assist a national central bank in supplying liquidity by buying government securities from residents in the national market and augmenting the country's supply of international reserves.

Membership in the ICA would be open to national central banks of all participating countries and branches of the clearing agency would operate in every major financial centre across the globe. The Agency would be governed by a rotating executive committee that would at all times represent half the world's population and half its total output. Its role in clearing members' payments in their own currencies would ensure that the ICA would not infringe on their sovereignty as an international central bank that issued a single currency would do. The conduct of national monetary policy and decisions about preferred exchange rate regimes would remain the prerogative of national authorities.

But the ICA's ability to create and extinguish international reserves would give it the power to change the availability of liquidity at the global level. The absence of and need for that power has been increasingly evident throughout the post-Bretton Woods era as crisis after crisis has damaged the global economy and underscored the inadequacy of the current monetary framework. The establishment of an international monetary agency to conduct countercyclical operations was never more needed than it is now.

4.17 STRUCTURE FOR REVIVING SDR ISSUANCE

Establishing the institutional framework for the two proposals outlined above would require international agreements. Obtaining this level of institutional and monetary reform is not totally impossible but it is unlikely given the current focus on dealing with a crisis that has become global in scale. It is more likely that incremental reforms will be offered in discussions involving the G20 and, as noted above, the most likely candidate for changing monetary arrangements is an enhanced role for the SDR.

The focus on the SDR is, perhaps, a realistic assessment of the potential problem that foreign exchange reserves may pose for global recovery. The slowdown in spending by US households and the ensuing drop in imports could narrow the channel for reserve creation if, as is likely, no other country and its currency can create reserves by acting as a global buyer-of-last-resort. As recognition of the

flaw in the key currency regime widens, reserve creation through issues of SDRs by the IMF is also gaining wider support. Notes

One version of SDR issuance may be the revival of the substitution account, allowing countries with holdings of dollar reserves to turn them in to the IMF for SDRs. There is concern that the Treasury's borrowing to finance the stimulus could precipitate increases in interest rates that would result in losses on holdings. At the same time, it is feared that the expansion of the money supply due to the Federal Reserve's lending programmes could cause inflation and weaken the dollar's value. A shift into SDRs might help cushion those losses for China and other countries with large holdings of dollar reserves in the short term. Over time, however, the downward pressure on US credit markets from the loss of capital inflows would exacerbate the decline in US imports and erode US markets' entrepot function in recycling investment flows back to emerging economies. Given those likely developments, dollar depreciation would be inevitable and substitution accounts would offer only limited protection against the economic consequences of the shrinkage in trade and investment.

The current channel for reserve creation rests on the paradigm of export-led growth and is one that may intensify the effects of the loss in value of reserve holdings. Thus the need for fiscal stimulus programmes in developing and emerging market countries that rely on exports for growth is as great as in advanced economies. But loss in the value of their international reserve holdings could constrain the ability of these countries to expand credit needed to finance stimulus programmes.

Here, perhaps, issues of SDRs in exchange for the government debt of countries undertaking infrastructure projects and programmes related to health and education could make a real contribution. The IMF would not only act as a buyer for that debt on reasonable terms but would release the foreign exchange reserves needed to fund the programmes by substituting SDRs as backing for domestic credit expansion. The use of foreign exchange reserves for spending would increase demand and contribute to recovery both locally and globally through job creation and increases in imports. Such a programme would also allow the IMF to mop up excess liquidity in the aftermath of recovery by selling back its holdings of government debt and extinguishing the SDR reserve holdings. It would therefore introduce a variation on the countercyclical mechanism that Harry D. White had proposed in the 1940s.

4.18 LIQUIDITY

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price. Market liquidity refers to the extent to which a market, such as a country's stock market or a city's real estate market, allows assets to be bought and sold at stable prices. Cash is considered the most liquid asset, while real estate, fine art and collectibles are all relatively illiquid.

Financial Liquidity

Cash is the most liquid asset. However, some investments are easily converted to cash like stocks and bonds. Since stocks and bonds are extremely easy to convert to cash, they're often referred to as liquid assets.

Investment assets that take longer to convert to cash might include preferred or restricted shares, which usually have covenants dictating how and when they can be sold.

Coins, stamps, art and other collectibles are less liquid than cash if the investor wants full value for the items. For example, if an investor was to sell to another collector, they might get full value if they wait for the right buyer. However, the item could be sold at a discount to its value if done through a dealer or broker if cash was needed.

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Land, real estate, or buildings are considered the least liquid assets because it could take weeks or months to sell them.

Before investing in any asset, it's important to keep in mind the asset's liquidity levels since it could be difficult or take time to convert back into cash. Of course, other than selling an asset, cash can be obtained by borrowing against an asset. For example, banks lend money to companies, taking the companies' assets as collateral to protect the bank from a default. The company receives cash but must pay back the original loan amount plus interest to the bank.

Liquidity in the Market

Market liquidity refers to a market's ability to allow assets to be bought and sold easily and quickly, such as a country's financial markets or real estate market.

The market for a stock is liquid if its shares can be quickly bought and sold and the trade has little impact on the stock's price. Company stocks traded on the major exchanges are typically considered liquid.

If an exchange has a high volume of trade, the price a buyer offers per share (the bid price) and the price the seller is willing to accept (the ask price) should be close to each other. In other words, the buyer wouldn't have to pay more to buy the stock and would be able to liquidate it easily. When the spread between the bid and ask prices widens, the market becomes more illiquid. For illiquid stocks, the spread can be much wider, amounting to a few percentage points of the trading price. (For more insight, see "Why the Bid-Ask Spread Is So Important.")

The time of day is important too. If you're trading stocks or investments after hours, there may be fewer market participants. Also, if you're trading an overseas instrument like currencies, liquidity might be less for the euro during, for example, Asian trading hours. As a result, the bid-offer-spread might be much wider than had you traded the euro during European trading hours.

Liquidity and Companies

Liquidity for companies typically refers to a company's ability to use its current assets to meet its current or short-term liabilities. A company is also measured by the amount of cash it generates above and beyond its liabilities. The cash left over that a company has to expand its business and pay shareholders via dividends is referred to as cash flow. Although, this article won't delve into the merits of cash flow, having operating cash is vital for a company both in the short-term and for long-term expansion.

The current ratio (also known as working capital ratio) measures the liquidity of a company and is calculated by dividing its current assets by its current liabilities. The term current refers to short-term assets or liabilities that are consumed (assets) and paid off (liabilities) is less than one year. The current ratio is used to provide a company's ability to pay back its liabilities (debt and accounts payable) with its assets (cash, marketable securities, inventory, and accounts receivable). Of course, industry standards vary, but a company should ideally have a ratio greater than 1, meaning they have more current assets to current liabilities. However, it's important to compare ratios to similar companies within the same industry for an accurate comparison.

The quick ratio, sometimes called the acid-test ratio, is identical to the current ratio, except the ratio excludes inventory. Inventory is removed because it is the most difficult to convert to cash when compared to the other current assets like cash, short-term investments, and accounts receivable. In other words, inventory is not as liquid as the other current assets. A ratio value of greater than one is typically considered good from a liquidity standpoint, but this is industry dependent.

The operating cash flow ratio measures how well current liabilities are covered by the cash flow generated from a company's operations. The operating cash flow ratio is a measure of short-term liquidity by calculating the number of times a company can pay down its current debts with cash generated

in the same period. The ratio is calculated by dividing the operating cash flow by the current liabilities. A higher number is better since it means a company can cover its current liabilities more times. An increasing operating cash flow ratio is a sign of financial health, while those companies with declining ratios may have liquidity issues in the short-term. *Notes*

4.19 THE PROBLEM OF INTERNATIONAL LIQUIDITY

International liquidity consists essentially in the resources available to national monetary authorities to finance potential balance of payments deficit it may consist in the possession of assets like gold, foreign exchange and in the ability to borrow internationally.

Thus, in its international setting, liquidity includes all those assets including SDRs which are generally acceptable without loss of value for settling international debts.

It may include the following:

1. Gold stocks with the Central Banks and with the IMF; foreign exchange reserves of countries; drawing rights of member countries with IMF; credit arrangements between countries; country's capacity to borrow in the money markets of another country; accumulation facilities (these arise when a foreign country accepts payments of debts in debtor's currency like Sterling balances accumulated during World War II; Euro-Dollars SDRs etc.
2. Corresponding to domestic liquidity which is a function of income, rate of interest and aggregate value of assets; we may spell out international liquidity of a country in the following function:
3. The IMF distinguishes between unconditional liquidity and conditional liquidity. The former consists of gold, foreign exchange reserves and credit facilities (gold reserve tranche position in the Fund) which member countries could use automatically without any questions being asked concerning balance of payments outlook and monetary policies. Conditional liquidity implies credit facilities which are not automatic, i.e., which can be used only if the potential lender (for example, the IMF) has received assurance concerning the monetary and BOP outlook of the borrowing country or its ability to repay credit in time.
4. There is no agreement amongst the economists about the true nature of the problem of international liquidity. Some economist's feel that the problem is quantitative that is, inadequacy of the means of international payments. Others feel that the problem is qualitative in nature and pertains to the form and composition of international reserves for liquidity purposes.
5. There are others who present the problem of international liquidity in a different way the claim that the problem is more of confidence, which arises due to lack of adjustment on account of fixed exchange rates (as had been the case under Bretton Woods System till 1976).
6. They feel that had there been greater adjustment in the exchange values of the currencies according to the conditions prevailing in the market or had there been flexible exchange rates helping quick adjustments, there would have been no problem of international liquidity.

   So the problem according to them, is one of adjustment. It may be true that a part of the problem of international liquidity (that is, providing the means of international payments) may be that of confidence and adjustment but mainly the problem is of inadequacy of reserves to cope with the expanding requirements of international trade. It has been found that the growth in the liquidity has not kept pace with the growth in the world trade.
7. During the 1970s through 1980s, the world trade almost doubled in a decade or so but the world reserves increased by hardly 25 per cent to 30 per cent in a decade and even this increase was unevenly distributed not only amongst developed countries but also between developed and underdeveloped countries, thereby causing a serious shortage of international liquidity.

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8. The average annual increase in world trade in past decade 1970-80 was about 8 to 10 per cent while the annual average percentage change in reserves was hardly 3V2 per cent between 1970-80. The ratio of reserves to imports which is generally taken as an approximate indicator of the adequacy of reserves, has markedly declined thereby suggesting the inadequacy of not only the present volume but also the rate of growth of international reserves.

   International monetary system Or arrangements, based on gold or gold exchange standard or dollar and sterling as international reserves, could no longer inspire confidence and provide for increased quantum of international liquidity on account of expanding world trade.

9. Apart from this, most baffling has been the problem as to the form, the new international reserve asset should take. Opinions differed in the past amongst leading countries as to the true nature and form of the new international reserve asset.

10. It is rather difficult to determine as to what will constitute the adequate level of international liquidity under the dynamic conditions of expanding world trade and growth in developing economies. It is said that the quantum of international money needed by the world depends on the size of international trade, that is, more trade will require more money to finance it. But, this is not true because trade is not financed normally by reserves.

11. International reserves finance not the volume of international trade but the balance of payments deficits. The amount or the quantity of international reserves needed, therefore, varies with the size of the swings in the balance of payments.

12. It may, therefore, be said that in a sense the aggregate needs of international liquidity are in one way related to factors like world trade, capital movements and imbalances in BOP. But their adequacy is also affected by psychological attitudes towards what are minimum or desired levels of natural reserves, by reserve movements and by the use of available credit facilities. Because other influencing factors cannot be quantified growth in imports seems to be the most relevant indicator of the need for reserves.

13. According to Triffin, "The ratio of gross reserves to annual imports is the first and admittedly rough approach to the appraisal of reserve adequacy". But it is not easy to determine the correct ratio of gross reserves to annual imports. It will, thus, be seen that the factors which determine the adequacy of international liquidity are, in practice, not precisely measurable.

14. It is not simply a matter of arithmetical relationship. Broadly speaking, the question of adequacy of liquidity national or international is a matter of judgment, depending on the economic circumstances prevailing in a country, on the time and on the purpose for which the reserves are to be used. We may conclude that a country will regard its liquidity or reserves as adequate when, in its opinion, the level of liquidity or reserves are sufficient to meet unforeseen deficits in its balance of payments without adopting restrictive policies affecting economic growth and international trade.

4.20 IMPORTANCE OF INTERNATIONAL LIQUIDITY

1. The importance of international liquidity lies in providing means by which disequilibrium in the BOP of different countries participating in international trade is settled, As such, it helps in the smooth flow of international trade by facilitating the availability of international means of payment. It make be understood that these means or reserves are used to finance deficits in the BOPs.

2. These reserves are not used to finance the inflows or outflows of trade. Changes in the balance of payments temporary deficits and surplus must be met by transfers of gold, convertible currencies or international borrowing facilities.

Notes

3. All these go to constitute international liquidity. The greater the stock of these items of international liquidity held by any country and by countries in the aggregate, the less will the need for changes in exchange rates.
4. In a world, in which there are considerable fluctuations in economic activities, accompanied by a growing demand for stability, the importance of international liquidity reserves lies in serving as a buffer, giving each country some leeway for the regulation of its national income and employment and providing it with a means to soften the impact of economic fluctuations arising on account of international trade and transactions.
5. A greater world holding of international liquidity reserves becomes necessary to maintain stable exchange rates over the whole business cycle than to meet any seasonal or short-run fluctuations. It is in this sense that adequacy or otherwise of foreign liquid reserves is an important determinant of the levels of world trade and economic activity. If there are enough or sufficient international liquid reserves, especially with those countries which are likely to incur deficits there will be less worry or panic for adjustment.
6. If there is too little international liquidity in the world, deficit countries will have no or little time to adjust and they will be forced to impose restrictions on trade and capital movements. As a result the world growth in international trade will be hampered and the prices of primary products will fall, turning the terms of trade in an unfavorable manner for developing economies. Easy access to international liquidity reserves makes it possible for the swings in the balance of payments to be financed; otherwise, the world trade may be strangled for want of international liquidity.
7. It implies not only sufficient quantity but the right composition and distribution of international liquid reserves. In other words, stability of reserves (in monetary system) has to be provided in terms of scale, composition and distribution, scale refers to the supply of liquid funds to the system as a whole ; while distribution applies to the distribution of liquid reserves amongst countries. Composition implies the currency composition of reserve holdings.
8. Regarding scale the major limitation is its inability to adjust the supply of reserves in a manner which exerts a stabilizing influence on the world economy. Again, the compositional problem inherent in multi-currency reserve system with floating exchange rates has to be looked into. The distributional problems have to be sorted out to the extent to which some countries have easier, less costly, access to international credits or reserves than do other countries in similar circumstances.

4.21 THE ADJUSTMENT MECHANISM

The monetary approach to the balance of payments is an explanation of the overall balance of payments. It explains changes in balance of payments in terms of the demand for and supply of money. According to this approach, "a balance of payments deficit is always and everywhere a monetary phenomenon." Therefore, it can only be corrected by monetary measures.

Assumptions of Adjustment Mechanism

This approach is based on the following assumptions:

1. The 'law of one price' holds for identical goods sold in different countries, after allowing for transport costs.
2. There is perfect substitution in consumption in both the product and capital markets which ensures one price for each commodity and a single interest rate across countries.

Notes

3. The level of output of a country is assumed exogenously.
4. All countries are assumed to be fully employed where wage price flexibility fixes output at full employment.
5. It is assumed that under fixed exchange rates the sterilisation of currency flows is not possible on account of the law of one price globally.
6. The demand for money is a stock demand and is a stable function of income, prices, wealth and interest rate.
7. The supply of money is a multiple of monetary base which includes domestic credit and the country's foreign exchange reserves.
8. The demand for nominal money balances is a positive function of nominal income.

The Theory:

Given these assumptions, the monetary approach can be expressed in the form of the following relationship between the demand for and supply of money:

The demand for money (MD) is a stable function of income (Y), prices (P) and rate of interest (i)

$MD = f(Y, P, i)$ ...(1)

The money supply (Ms) is a multiple of monetary base (m) which consists of domestic money (credit) (D) and country's foreign exchange reserves (R). Ignoring m for simplicity which is a constant,

$MS = D + R$ ... (2)

Since in equilibrium the demand for money equals the money supply,

$MD = Ms$ .. (3)

or $MD = D + R$ [$MS = D + R$] ...(4)

A balance of payments deficit or surplus is represented by changes in the country's foreign exchange reserves. Thus

$\Delta R = \Delta MD - \Delta D$ ... (5)

Or $\Delta R = B$ ... (6)

Where, B represents balance of payments which is equal to the difference between change in the demand for money (Δ MD) and change in domestic credit (Δ D).

A balance of payments deficit means a negative B which reduces R and the money supply. On the other hand, a surplus means a positive B which increases R and the money supply. When B = O, it means bop equilibrium or no disequilibrium of BOP.

The automatic adjustment mechanism in the monetary approaches is explained under both the fixed and flexible exchange rate systems.

Under the fixed exchange rate system, assume that MD = MS so that BOP (or B) is zero. Now suppose the monetary authority increases domestic money supply, with no change in the demand for money. As a result, MS > MD and there is a BOP deficit.

People who have larger cash balances increase their purchases to buy more foreign goods and securities. This tends to raise their prices and increase imports of goods and foreign assets. This leads to increase in expenditure on both current and capital accounts in BOP, thereby creating a BOP deficit.

To maintain a fixed exchange rate, the monetary authority will have to sell foreign exchange reserves and buy domestic currency. Thus the outflow of foreign exchange reserves means a fall in R and in domestic money supply. This process will continue until MS = MD and there will again be BOP equilibrium.

On the other hand, if MS < MD at the given exchange rate, there will be a BOP surplus. Consequently, people acquire the domestic currency by selling goods and securities to foreigners. They will also seek to acquire additional money balances by restricting their expenditure relatively to their income. *Notes*

The monetary authority on its part, will buy excess foreign currency in exchange for domestic currency. There will be inflow of foreign exchange reserves and increase in domestic money supply. This process will continue until MS = MD and BOP equilibrium will again be restored. Thus a BOP deficit or surplus is a temporary phenomenon and is self-correcting (or automatic) in the long-run.

In Panel (A) of the figure, MD is the stable money demand curve and MS is the money supply curve. The horizontal line m (D) represents the monetary base which is a multiple of domestic credit, D which is also constant. This is the domestic component of money supply that is why the MS curve starts from point C.

MS and MD curves intersect at point E where the country's balance of payments is in equilibrium and its foreign exchange reserves are OR. In Panel (B) of the figure, PDC is the payments disequilibrium curve which is drawn as the vertical difference between Ms and MD curves of Panel (A). As such, point B0 in Panel (B) corresponds to point E in Panel (A) where there is no disequilibrium of balance of payments.

If MS < MD there is BOP surplus of SP in Panel (A). It leads to the inflow of foreign exchange reserves which rise from OR1 to OR and increase the money supply so as to bring BOP equilibrium at point E. On the other hand, if MS > MD, there is deficit in BOP equal to DF.

There is outflow of foreign exchange reserves which decline from OR2 to OR and reduce the money supply so as to reestablish BOP equilibrium at point E. The same process is illustrated in Panel (B) of the figure where BOP disequilibrium is self-correcting or automatic when B1S1 surplus and B2D1 deficit are equal.

Under a system of flexible (or floating) exchange rates, when B = O, there is no change in foreign exchange reserves (R). But when there is a BOP deficit or surplus, changes in the demand for money and exchange rate play a major role in the adjustment process without any inflow or outflow of foreign exchange reserves.

Suppose the monetary authority increases the money supply (MS > MD) and there is a BOP deficit. People having additional cash balances buy more goods thereby raising prices of domestic and imported goods. There is depreciation of the domestic currency and a rise in the exchange rate.

The rise in prices, in turn, increases the demand for money thereby bringing the equality of MD and MS without any outflow of foreign exchange reserves. The opposite will happen when MD > MS, there is fall in prices and appreciation of the domestic currency which automatically eliminates the excess demand for money. The exchange rate falls until MD = MS and BOP is in equilibrium without any inflow of foreign exchange reserves.

4.22 CRITICISMS OF ADJUSTMENT MECHANISM

The monetary approach to the balance of payments has been criticized on a number of counts:

1. Demand for Money not Stable

Critics do not agree with the assumption of stable demand for money. The demand for money is stable in the long run but not in the short run when it shows less stability.

2. Full Employment not Possible

Similarly, the assumption of full employment is not acceptable because there exists involuntary unemployment in countries.

Notes

3. One Price Law Invalid

Frankel and Johnson are of the view that the law of one price holds for identical goods sold is invalid. This is because when factors of production are drawn into sectors producing non-trading goods, the excess demand for non-traded goods will spill over into reduced supplies of traded goods. This will lead to higher imports, and disturb the law of one price for all traded goods.

4. Market Imperfections

There are also market imperfections which prevent the law of one price from working properly in many markets for traded goods. There may be price differentials due to the lack of information about overseas prices and trade regulations faced by traders.

5. Sterilization not Possible

The assumption that the sterilization of currency flows is not possible under fixed exchange rates, has not been accepted by critics. They argue that "the sterilization of currency flows is entirely possible if the private sector is willing to adjust the composition of its wealth portfolio with regard to the relative importance of bonds and money balances, or if the public sector is prepared to run a higher budget deficit whenever it has a balance of payments deficit with which to contend."

6. Link between BOP and Money Supply not Valid

The monetary approach is based upon direct link between BOP of a country and its total money supply. This has been questioned by economists. The link between the two depends upon the ability of the monetary authority to neutralize the inflows and outflows of foreign exchange reserves when there is BOP deficit and surplus. This requires some degree of sterilization of external flows. But this is not possible due to globalization of financial markets.

7. Neglects Short Run

The monetary approach is related to the self-correcting long-run equilibrium in BOP. This is unrealistic because it fails to describe the short time through which the economy passes to reach the new equilibrium. As pointed out by Prof. Krause, the monetary approach's "concentration on the long-run assumes away all of the problems that make the balance of payments a problem."

8. Neglects Other Factors

This approach neglects all real and structural factors which lead to disequilibrium in BOP and concentrates only on domestic credit.

9. Neglects Economic Policy

This approach emphasizes the role of domestic credit in bringing BOP equilibrium and neglects economic policy measures. According to Prof. Currie, the balance of payments equilibrium can also be "achieved by expenditure-switching policies working through real flows and government budget."

4.23 THE INTERNATIONAL MONETARY SYSTEM

An international monetary system is a set of internationally agreed rules, conventions and supporting institutions that facilitate international trade, cross border investment and generally the reallocation of capital between nation states. Some of the main functions of International Monetary Fund are as follows:

1. Exchange Stability

The first important function of IMF is to maintain exchange stability and thereby to discourage any fluctuations in the rate of exchange. The Found ensures such stability by making necessary arrangements

like enforcing declaration of par value of currency of all members in terms of gold or US dollar, enforcing devaluation criteria, up to 10 per cent or more by more information or by taking permission from IMF respectively, forbidding members to go in for multiple exchange rates and also to buy or sell gold at prices other than declared par value. Notes

2. Eliminating BOP Disequilibrium

The Fund is helping the member countries in eliminating or minimizing the short-period equilibrium of balance of payments either by selling or lending foreign currencies to the members. The Fund also helps its members towards removing the long period disequilibrium in their balance of payments. In case of fundamental changes in the economies of its members, the Fund can advise its members to change the par values of its currencies.

3. Determination of Par Value

IMF enforces the system of determination of par values of the currencies of the members countries. As per the Original Articles of Agreement of the IMF every member country must declare the par value of its currency in terms of gold or US dollars. Under the revised Articles, the members are given autonomy to float or change exchange rates as per demand supply conditions in the exchange market and also at par with internal price levels.

As per this article, IMF is exercising surveillance to ensure proper working and balance in the international monetary system, i.e., by avoiding manipulation in the exchange rates and by adopting intervention policy to counter short-term movements in the exchange value of the currency.

4. Stabilize Economies

The IMF has an important function to advise the member countries on various economic and monetary matters and thereby to help stabilize their economies.

5. Credit Facilities

IMF is maintaining various borrowing and credit facilities so as to help the member countries in correcting disequilibrium in their balance of payments. These credit facilities include-basic credit facility, extended fund facility for a period of 3 years, compensatory financing facility, lociffer stock facility for helping the primary producing countries, supplementary financing facility, special oil facility, trust fund, structural adjustment facility etc. The Fund also charges interest from the borrowing countries on their credit.

6. Maintaining Balance between Demand and Supply of Currencies

IMF is also entrusted with important function to maintain balance between demand and supply of various currencies. Accordingly the fund can declare a currency as scarce currency which is in great demand and can increase its supply by borrowing it from the country concerned or by purchasing the same currency in exchange of gold.

7. Maintenance of Liquidity

To maintain liquidity of its resources is another important function of IMF. Accordingly, there is provision for the member countries to borrow from IMF by surrendering their own currencies in exchange. Again for according accumulation of less demand currencies with the Fund, the borrowing countries are directed to repurchase their own currencies by repaying its loans in convertible currencies.

8. Technical Assistance

The IMF is also performing an useful function to provide technical assistance to the member countries. Such technical assistance in given in two ways, i.e., firstly by granting the members countries the services of its specialists and experts and secondly by sending the outside experts.

Notes

Moreover the Fund has also set up two specialized new departments:

(a) Central Banking Services Department and

(b) Fiscal Affairs Department for sending specialists to member countries so as to manage its central banks and also on fiscal management.

9. Reducing Tariffs

The Fund also aims at reducing tariffs and other restrictions imposed on international trade by the member countries so as to cease restrictions of remittance of funds or to avoid discriminating practices.

10. General Watch

The IMF is also keeping a general watch on the monetary and fiscal policies followed by the member countries to ensure no flouting of the provisions of the charter.

4.24 SUMMARY

Regional Clearing System is a centralized, web-based clearing service that can ease the work of banks, financial institutions, the government and corporates by consolidating all regional ECS systems into one national payment system, thereby removing any geographical barriers in efficient banking. Payment and settlement systems in India are payment and settlement systems in India for financial transactions.

The Reserve Bank of India is doing its best to encourage alternative methods of payments which will bring security and efficiency to the payments system and make the whole process easier for banks.

The Indian banking sector has been growing successfully, innovating and trying to adopt and implement electronic payments to enhance the banking system. Though the Indian payment systems have always been dominated by paper-based transactions, e-payments are not far behind. Ever since the introduction of e-payments in India, the banking sector has witnessed growth like never before.

Known as "Credit-push" facility or one-to-many facility this method is used mainly for large-value or bulk payments where the receiver's account is credited with the payment from the institution making the payment. Such payments are made on a timely-basis like a year, half a year, etc. and used to pay salaries, dividends or commissions. Over time it has become one of the most convenient methods of making large payments.

Known as many-to-one or "debit-pull" facility this method is used mainly for small value payments from consumers/ individuals to big organizations or companies. It eliminates the need for paper and instead makes the payment through banks/corporates or government departments. It facilitates individual payments like telephone bills, electricity bills, online and card payments and insurance payments. Though easy this method lacks popularity because of lack of consumer awareness.

As mentioned above India is one of the fastest growing countries in the plastic money segment. Already there are 130 million cards in circulation, which is likely to increase at a very fast pace due to rampant consumerism. India's card market has been recording a growth rate of 30% in the last 5 years. Card payments form an integral part of e-payments in India because customers make many payments on their card-paying their bills, transferring funds and shopping.

Sterling area is a group of countries that kept most of their exchange reserves at the Bank of England and, in return, had access to the London capital and money market. After the devaluation of the pound sterling in September 1931, the United Kingdom and other countries that continued to maintain parity with sterling and to hold their reserves in London became known as the sterling bloc.

Notes

A payments system established between the member countries of the Organization for European Economic Cooperation in 1948 to facilitate the distribution of U.S. aid under the European Recovery Programme and to encourage intra-European trade by facilitating the settlement of intra-European balance of payments deficits. Based on a set of intra-European bilateral trade forecasts, a country for which a surplus balance of payments was expected received U.S. aid above a certain minimum only on condition that it extended drawing rights to its European partners in its own currency.

All dollar amounts referred to in this Note are in United States Dollars ("U.S. Dollars"), and all amounts owing under this Note shall be paid in U.S. Dollars. All amounts denominated in other currencies (if any) shall be converted into the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Note, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation (it being understood and agreed that where an amount is calculated with reference to, or over, a period of time, the date of calculation shall be the final date of such period of time).

The historical evidence shows that the stability of the U.S. dollar has varied widely in its history. This variation is explained by two factors: the monetary standard chosen for the dollar, and whether other countries have simultaneously used cash and securities payable in dollars as their own reserves, or even as their monetary standard itself (i.e., official reserve currencies in place of gold.)

During the crises at the end of the 1990s, discussions covered many of the issues that are still being considered today international policy coordination and surveillance, participation in global governance, financing for development, debt and crisis management. As was true of these issues, little progress was made in dealing with another critical issue, the monetary aspect of problems within the existing international system, even though those problems had been identified and discussed since the 1960s.

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset's price. Market liquidity refers to the extent to which a market, such as a country's stock market or a city's real estate market, allows assets to be bought and sold at stable prices. Cash is considered the most liquid asset, while real estate, fine art and collectibles are all relatively illiquid.

International liquidity consists essentially in the resources available to national monetary authorities to finance potential balance of payments deficit may consist in the possession of assets like gold, foreign exchange and in the ability to borrow internationally.

Thus, in its international setting, liquidity includes all those assets including SDRs which are generally acceptable without loss of value for settling international debts.

The importance of international liquidity lies in providing means by which disequilibrium in the BOP of different countries participating in international trade is settled, As such, it helps in the smooth flow of international trade by facilitating the availability of international means of payment. It make be understood that these means or reserves are used to finance deficits in the BOPs.

The monetary approach to the balance of payments is an explanation of the overall balance of payments. It explains changes in balance of payments in terms of the demand for and supply of money.

4.25 SELF-ASSESSMENT QUESTIONS

1. What is Regional Clearing System? Discuss in details about Regional Clearing system.
2. What is sterling area? Write note on: sterling area.

Notes

3. What is intra-European payments agreement? Discuss about the intra-European payments agreements.
4. Explain about the Dollar Problems related to payment system.
5. Discuss nature of the problem in the fifties and seventies.
6. What is world monetary system? Explain about impact on the world monetary system.
7. What is international liquidity? Discuss the problems of international liquidity.
8. What is adjustment mechanism? Explain about the adjustment mechanism.
9. What is international monetary system? Discuss about the international monetary system.

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Chapter 5

PROPOSALS FOR REFORMS OF THE INTERNATIONAL MONETARY SYSTEM

Objectives

The objectives of this lesson are to:

- Proposals for reforms of the international Monetary System
- Flexible Exchange Rates revaluation of Gold
- Keynes Plan for a Clearing Union
- The Triffin Plan
- The Bernstein Plan
- Hard Caldor Tinbergen Plan
- Special drawing rights under IMF
- International Monetary System and the Developing Countries

Structure:

5.1 Introduction

5.2 Proposals for reforms of the International Monetary System

5.3 Keynes Plan for a Clearing Union

5.4 The Triffin Plan

5.5 The Bernstein Plan

5.6 The Hard, Kaldor and Tinbergen Plan in Commodity Reserve Currency

5.7 Special Drawing Rights under IMF

5.8 History of Special Drawing Rights

5.9 International Monetary System and the Developing Countries

5.10 Summary

5.11 Self-Assessment Questions

5.1 INTRODUCTION

The international community continues to assimilate and build upon the lessons of the global financial crisis, the IMF has embarked on a process to better understand the challenges facing the international monetary system (IMS). This process includes a review whose purpose is to identify the system's evolving shortcomings and lay the foundations for reforms that can strengthen resilience and long-term growth.

Notes

The work on the IMS also seeks to refine the IMF's role at the center of the global economy, building upon the last review conducted in 2011. The current review began with a set of papers, issued in March 2016, designed to enrich policy discussions within the Fund and in other key international settings, including at the G20. It will provide a narrative for various projects incorporated into the IMF Work Program, including the global financial safety net, the size of the Fund, the role of the SDR, the Fifteenth General Review of Quotas, and analysis of capital flows.

The IMS review follows several IMF initiatives that were part of the reforms growing out of the crisis; for example, the introduction of integrated surveillance and the strengthening of financial sector surveillance, both intended to sharpen the Fund's focus on risks and vulnerabilities; the broadening of spillover work; and the overhaul of the lending toolkit.

But the process of assessing the IMS requires that new challenges be taken into account: how to enhance the process of globalization to the broad benefit of all players in the global economy, address China's re-balancing, and adjust to lower commodity prices and differences in monetary conditions among the world's major economies. In particular, as the world navigates a low-growth environment and emerging market and developing economies continue to integrate and deepen their financial markets, risks and vulnerabilities associated with interconnectedness and openness need to be managed.

While the Fund is at the center of the IMS, it is part of a larger system with central banks and other standard-setting agencies. The Fund's role is to provide analysis and a shared understanding: it will be up to the Fund's membership take reform forward.

The IMF also contributes to the international monetary system by providing part of a global financial safety net that is responsive to three imperatives: encouraging better policymaking, financing adjustment at a reasonable pace, and providing insurance to "innocent bystanders" that may be affected by instability. Another level of the safety net is regional financing arrangements, such as the Chiang Mai Initiative, and the IMF seeks ways to work more closely with them.

5.2 PROPOSALS FOR REFORMS OF THE INTERNATIONAL MONETARY SYSTEM

The introduction of flexible exchange rates would relieve the central banks once and for all of any function in the international payments system and would remove any requirement to hold reserves for foreign payments. Flexible exchange rates will equilibrate the demand for and the supply of foreign exchange. The system will solve completely both the problems of liquidity and adjustment.

In theory it would automatically keep the balance of payments of countries in equilibrium. But movements of exchange rates would not have a corrective effect unless accompanied by appropriate fiscal and credit policies of the government. The system is most compatible with the preservation of national sovereignties. Another merit of free trade adjustment is its simplicity. Under such a system a country is free to pursue at any time whatever monetary policy it thinks suitable to the needs of the internal situation.

Harrod and Triffin have criticized the system as it runs counter to the basic philosophy of IMF which was established to promote exchange stability. Again there are risks of foreign trade under the flexible exchange rate system and it might lead to inflationary situations.

Increase in the Price of Gold

A substantial increase in the price of gold, its proponents argue, would solve the problem of international liquidity. If the price of gold was doubled, the value of the monetary stocks of gold would also be doubled. This would obviously lead to a large increase in world liquidity.

Notes

The countries that would especially benefit would be the United States and the EEC countries of Western Europe, which together hold 75-80 percent of the world's known monetary gold reserves. That the value of the existing stocks would increase. The proponents of an increase in the price of gold also argue that the long- term growth of the world supply would increase. This, however, is a more debatable point.

Mining of gold would be more profitable and would undoubtedly lead to an increase in the supply of gold. The vital point is the effect of a price increase on hoarding. The proponents of a world-wide devaluation argue that a dishoarding would follow and that gold would therefore come out of various hiding places and flow into the central banks as hoarders and speculators took advantage of the price increase. This line of argument is also supported by historical evidence.

Against this background, it is doubtful whether a world-wide devaluation of currencies and revaluation of gold would be looked upon as a once-and-for-all phenomenon. There could be those, who would have a feeling that, in the future, gold would be revalued again and therefore would continue to hold on to it. In this case, no dishoarding of gold would take place and there would be no increase in the amount of gold available for monetary purposes.

An increase in the price of gold also has some obvious drawbacks. The increase in the value of the stocks of gold could have an inflationary impact on the world economy. Since the stocks of gold are very unevenly distributed among countries, a world-wide devaluation would benefit only a small group of countries, which already have large enough reserves. Another point worth mentioning is that, a revaluation of gold would penalize those countries which have most loyally cooperated in sustaining the present system by holding reserve currencies instead of gold.

The world's two largest gold producers are South Africa and the Soviet Union. These two countries would then benefit from an increase in the price of gold. How this effect is evaluated is obviously a political question.

It is highly doubtful whether any increase in the increments of the world's stock of monetary gold would take place because of gold revaluation. Even if one were willing to accept (or disregard) all the side effects that we have discussed it is, therefore, doubtful whether an increase in the price of gold could be judged a rational policy.

To sum up, an increase in the price of gold would hardly solve the problems of the international monetary system in the long-run. It is effect on the supply of gold is highly debatable. If a considerable revaluation in the price of gold was undertaken, it could easily have an immediate disruptive influence on the world's price level. To leave the supply of international liquidity to the vagaries of gold production in hardly rational.

5.3 KEYNES PLAN FOR A CLEARING UNION

The keynes plan was proposed in 1943. A central feature of the plan is the establishment of a clearing union. In this sense, the Keynes plan aims at the creation of an international central reserve bank. This will be done as follows. A new international currency unit; called bancor, with a fixed value in gold will be created. At the same time, holdings of foreign currency will be abolished. Gold, however, will still be used for international monetary purposes. Thus, when the system is fully developed, only the two means of international payments will be in use: gold and bancor.

According to this plan a single country can acquire bancor in two ways: It can sell gold or use its overdraft facilities with the clearing union. The exchange of gold and bancor, however, is one way. Gold can be used to acquire bancor, but bancor cannot be used to buy gold. The essence of Keynes plan is the clearing union. The plan builds on the concept that deficits and surpluses in the balance of payments change in a cyclical, fashion. A deficit country needing liquidity can borrow from the clearing union by

Notes using the overdraft facilities. Each member country has a quota in the union. The quota depends on the sum of each country's exports and imports.

If a country uses more than one fourth but less than one half its quota, it will have to pay a charge of 1 percent per year on its borrowings with the union; if it uses more than one half its quota, charge will be 2 percent. An interesting feature is that surplus countries too will have to pay a charge if they are excessively liquid. If a surplus country has a credit balance with the union of more than one half its quota it will have to pay a change of 1 percent per year.

A basic part of the philosophy behind the plan is the view that external imbalances are of a cyclical, short-term nature. For a year or two a country might be in deficit, during which time it should be able to borrow from the union. Similarly, a country might have a surplus in the short-term, but if it accumulates too great a reserve of bancor it should be penalized. If imbalances are of a short-term type, and economic policies, presumably both expenditure reducing and expenditure switching policies, should be used for the rapid creation of a new balance. Surplus countries should also play their role by inflating or appreciating thereby trying to eliminate the surplus.

It should also be observed that adjustment can take the form of capital movements. The only way deficit and surplus countries can avoid paying charges to the union is for a deficit country to borrow from a surplus country and for a surplus country to lend to a deficit country. Capital movements between countries are therefore encouraged by the Keynes plan. It is envisaged that accommodating capital movements can be turned into autonomous capital flows and that they can play a role both as a form of adjustment and as a creator of breathing space while other measures of adjustment are being prepared.

The Keynes plan has several attractive features. It is modest in scope, in that it only relies on the creation of a clearing union and a new international currency. It is also a sound proposal in that it stresses the role of adjustment and capital movements. Another interesting aspect of the Keynes plan is that it makes no provision for a gradual, long-term increase in international liquidity.

Keynes plan was rejected at Bretton Woods for two reasons. First, Keynes plan did not allow the right of conversion into gold of holdings of "bancor". Second, the credit creating powers of the proposed clearing union were unlimited with possible inflationary implications for the world economy.

5.4 THE TRIFFIN PLAN

The Triffin plan resembles the Bernstein plan. It builds on the idea that international monetary reserves should be centralized. International Monetary Fund would work as a world Central Bank. Countries which now hold foreign exchange as part of their reserves will be required to hold an increasing proportion of their foreign exchange assets as deposits in the IMF. Thus, IMF will get reserves and the Central Banks will be credited with deposits. The deposits with the IMF will carry a gold guarantee.

If this should be insufficient as an inducement for the member countries to convert their reserves into deposits is the IMF, Triffin suggests that member countries be required to hold at least 20% of their total reserves as deposits with the IMF. IMF will then gradually expand its activities in this direction and eventually will acquire all international reserves in the form of foreign currency.

It will be permitted gradually to liquidate its holdings of foreign currencies so that in the end there will be only two means of international liquidity, (i) deposits with the IMF and (ii) gold.

Perhaps the most distinguishing feature of the Triffin plan is that it suggests that the fund be empowered to engage in open market operations and thereby regulate the amount of international liquidity available. If the fund wished to increase the amount of international liquidity, it could do so by buying securities from the private persons, commercial banks or the central bank of a member country.

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The IMF cheque thus obtained by any of the mentioned groups is cashed with the central bank of the member country in question, which deposits it with the IMF to be credited to the account of the central bank in question. If, for example, the fund bought securities for $ 10 million international liquidity is increased by that amount by the fund operation.

The background of this part of the plan is the need for a long-term increase of international liquidity which Triffin views as one of the essential tasks that any reform plan .should solve. If IMF recognizes a need for a secular growth of international liquidity, its open market purchases will exceed its open market sales.

Drawbacks:

(i) It does not provide for a substantial increase of international liquidity in the short-run.

(ii) It might even lead to an immediate decrease of liquidity if countries treat their deposits with the fund as less liquid than dollars and gold.

(iii) It might unduly favour industrial countries because open market operations would be concentrated in these countries.

(iv) But the most fundamental weakness of the Triffin plan is that it builds on a peculiar contradiction. On the one hand, it is too conservative, too pragmatic; on the other it is too Utopian.

Triffin will retain gold as a means of international liquidity. He even goes so far as to have a gold exchange clause so that gold can be exchanged for deposits with the fund, the vice versa. This amounts to preserving the confidence problem that haunts the present system. If a central bank wished to exchange their IMF certificates for gold, there is nothing in the Triffin plan that could stop them. This could of course, create confidence problem of much the same type as that connected with a run on gold and away from dollars.

It seems that the only measure that could save such a situation would be the cooperation of a sufficient number of strong central banks. We are then back to precisely the type conditions now prevailing. In this respect the Triffin plan is conservative.

The Utopian aspect of the plan is the one connected with the extended functions of the IMF; more precisely its power to control liquidity by open market operations. Basically the same kind of criticism that can be raised against the idea of a World Central Bank can also be leveled against Triffin's extended version of IMF. On the pragmatic level it can be argued that there is little reason to believe that countries will be willing to abstain from sovereignty over an important part of economic policy and let some directors of IMF decides for them.

To sum up, Triffin deserves credit for his insistence on pointing out the inherent difficulties and contradictions of the present system. His diagnosis of the present international monetary system points to its essential weakness. Triffin's role as a critic is not diminished by the fact that he was perhaps the earliest and has been the most insistent critic of the present fold-exchange standard. His plan for international monetary reform, however, is a halfway house. It is at the same time too conservative and too extravagant.

5.5 THE BERNSTEIN PLAN

The leading idea of the Bernstein plan is to give the IMF a more central place in the present international monetary system. The member countries now hold quotas in the IMF. These quotas, however, are not regarded as "the-first-line-reserves". At present, members have automatic access to the first 25 percent of their quotas (their gold subscriptions to the fund). Moreover they have almost automatic access to another 25 percent. Thereafter drawings from the fund are subject to increasingly stringent conditions of fund approval.

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The first suggestion of the Bernstein plan is that the IMF quotas should be integrated into each country's working balances. Thereby the amount of international liquidity should increase. The second suggestion of the Bernstein plan is the creation of a Reserve Unit Account within the IMF. This is the central feature of the plan. A member country of the IMF could be allotted say $ 100 million of reserve units. This would mean that the country would deposit an equivalent amount of its own currency with the Reserve Union Account.

The allotment of reserve units could, for instance, be in proportion to the respective country's quota in IMF. These reserve units would then be used in settlements of deficits and surpluses in the balance of payments.

The creation of the Reserve Unit Account would be a way of institutionalizing capital movements. Deficit countries would be able to cover their deficits by borrowing reserve units from the account and using these in setting their deficits. An advantage for the deficit countries would be that they would not have to negotiate with central banks of various surplus countries but only with the IMF directly.

If the system came to be accepted, it would presumably mean that deficit countries could more or less automatically count on acquiring a certain amount of reserve units. This in effect would mean that deficit countries, at least for some time, could count on turning accommodating capital imports into autonomous, controlled inflows.

Another important aspect of the Bernstein plan is that it provides for an increase in international liquidity. There is need for an increase in liquidity and that this need will be accentuated in years to come.

The growth of reserves could simply be handled by an increase in the total amount of reserve units.

Bernstein suggests that new reserve units should be issued each year "to provide for an adequate but not excessive increase in total monetary reserves".

To avoid sudden changes of policy in this respect the amount of reserve currencies to be issued could be determined at 5 year intervals.

The Bernstein plan has several attractive features. It builds on existing institutions and does not imply any great changes in this respect. The reform of the IMF that the plan in tails would perhaps be viewed as rational by some, but it can hardly be argued that it would be impracticable. Furthermore, it recognizes that what really counts in international monetary matters is the behaviour of a handful of the leading industrial countries. If they could get together in creating a Reserve Unit Account within the IMF, there is no doubt that this could be done. Another important point is that the plan explicitly recognizes the need for organized capital movements as support for the international monetary system.

The main drawback of the Bernstein plan is that it does not solve the confidence problem. On the contrary, it could be argued that it introduces new complication into this problem. Gold would still be used within the system. The reserve unit would have a guaranteed gold value.

It is somewhat unclear whether or not the reserve unit would be freely exchangeable with gold. If it was, the confidence problem of the present system is left intact. There is no guarantee against a run on gold and away from reserve units, if the reserve units are not freely exchangeable with gold, one can easily envisage a situation where surplus countries would refuse to accept reserve units. Then the system could breakdown.

There are also other facets to the confidence problem under a Bernstein type of plan. As the time goes by, the composition of the backing of the reserve units could change and increasingly come to consist of "soft" currencies. Devaluations could cause trouble, with argument about who is going to make up the loss, incurred by those (including the Reserve Unit Account) who holds the devaluing currency.

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5.6 THE HARD, KALDOR AND TINBERGEN PLAN IN COMMODITY RESERVE CURRENCY

Kaldor's 1964 propose for a commodity reserve currency (CRC) as a serious alternative to the current system, which has the US dollar as the world reserve currency. It argues that the reserve currency status of the US dollar helped to create global imbalances and financial fragility pre-empting the current crisis. The primary goal of the CRC was to resolve the 1969 Triffin dilemma, which remains a problem today. The alternative monetary reform proposals are the CRC is outlined. Backed by a basket of 30 or so commodities, the CRC would fix their price index in terms of the international reserve and reduce the disorderly swings in individual commodity prices. Sovereign governments would be free to fix or float their national currencies to the CRC. With growing fears over global warming and national resource security, particularly in the world's poorest countries, the introduction of a CRC could reduce supply constraints, stabilize costs of production, promote global effective demand from the periphery and balance growth between periphery and core countries.

Like Keynes, Nicholas Kaldor was trying to avoid a gold or dollar standard and find a solution to global imbalances, cost-push inflation and world inequality. He argued that a CRC would anchor real exchange rates, promote trade, allow nations to have independent employment and credit policies, and provide the natural resource security necessary for equitable robust growth and world peace. At the time of their authorship all three proposals went nowhere. In 1943 Keynes was supportive of a CRC but believed it was for future implementation once men's minds were trained for such advances. In 1972 Kaldor thought that the commodity reserve currency was still 20 years ahead of its time.

5.7 SPECIAL DRAWING RIGHTS UNDER IMF

Special drawing rights (SDR) refer to an international type of monetary reserve currency created by the International Monetary Fund (IMF) in 1969 that operates as a supplement to the existing money reserves of member countries. Created in response to concerns about the limitations of gold and dollars as the sole means of settling international accounts, SDRs augment international liquidity by supplementing the standard reserve currencies.

An SDR is essentially an artificial currency instrument used by the IMF, and is built from a basket of important national currencies. The IMF uses SDRs for internal accounting purposes. SDRs are allocated by the IMF to its member countries and are backed by the full faith and credit of the member countries' governments. The makeup of the SDR is re-evaluated every five years. The current makeup on the SDR is represented by the following table:

Currency	*Weights determined in the 2015 Review*	*Fixed Number of Units of Currency for a 5-year period Starting Oct 1, 2016*
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Euro	30.93	0.38671
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There are also problems connected with interest rates charged on reserve units to lenders and borrowers which could be difficult to solve. The way increases in liquidity should be handled would also have to be solved. The Bernstein plan only creates a mechanism through which increases can be made; it does not solve the essential problem: what rule should govern the creation of liquidity. The plan could in this respect easily turn into a scheme for special assistance to deficit countries.

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Chinese Yuan	8.33	1.0174

Notes

Japanese Yen	8.09	11.900
Pound Sterling	10.92	0.085946

The SDR was formed with a vision of becoming a major element of international reserves, with gold and reserve currencies forming a minor incremental component of such reserves. To participate in this system, a country was required to have official reserves. This consisted of central bank or government reserves of gold and globally accepted foreign currencies that could be used to buy the local currency in foreign exchange markets to maintain a stable exchange rate.

However, the international supply of the U.S. dollar and gold - the two main reserve assets - wasn't sufficient to support growth in global trade and the related financial transactions that were taking place. This prompted member countries to form an international reserve asset under the guidance of the IMF.

A few years after the SDR was created, the Bretton Woods system imploded, moving major currencies to the floating exchange rate system. With time, international capital markets expanded considerably, enabling creditworthy governments to borrow funds. This saw many governments register exponential growth in their international reserves. These developments diminished the stature of the SDR as a global reserve currency.

5.8 HISTORY OF SPECIAL DRAWING RIGHTS

Special drawing rights were created by the IMF in 1969 and were intended to be an asset held in foreign exchange reserves under the Bretton Woods system of fixed exchange rates. 1 XDR was initially defined as US$1, equal to 0.888671 g of gold. After the collapse of that system in the early 1970s the SDR has taken on a less important role. Acting as the unit of account for the IMF has been its primary purpose since 1972.

The IMF itself calls the current role of the XDR "insignificant". Developed countries, who hold the greatest number of XDRs, are unlikely to use them for any purpose. The only actual users of XDRs may be those developing countries that see them as "a rather cheap line of credit".

One reason XDRs may not see much use as foreign exchange reserve assets is that they must be exchanged into a currency before use. This is due in part to the fact private parties do not hold XDRs: they are only used and held by IMF member countries, the IMF itself, and a select few organizations licensed to do so by the IMF. Basic functions of foreign exchange reserves, such as market intervention and liquidity provision, as well as some less prosaic ones, such as maintaining export competitiveness via favorable exchange rates, cannot be accomplished directly using XDRs. This fact has led the IMF to label the XDR as an "imperfect reserve asset".

Another reason they may see little use is that the number of XDRs in existence is relatively few. As of January 2011, XDRs represented less than 4% of global foreign exchange reserve assets. To function well a foreign exchange reserve asset must have sufficient liquidity, but XDRs, because of their small number, may be perceived to be an illiquid asset. The IMF says, "expanding the volume of official XDRs is a prerequisite for them to play a more meaningful role as a substitute reserve asset."

Alternative to U.S. dollar

The XDR comes to prominence when the U.S. dollar is weak or otherwise unsuitable to be a foreign exchange reserve asset. This usually manifests itself as an allocation of XDRs to IMF member countries. Distrust of the U.S. dollar is not the only stated reason allocations have been made, however. One of its first roles was to alleviate an expected shortfall of U.S. dollars c. 1970. At this time, the United States had a conservative monetary policy and did not want to increase the total amount of U.S. dollars in existence. If the United States had continued down this path, the dollar would have become a

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less attractive foreign exchange reserve asset: it would not have had the necessary liquidity to serve this function. Soon after XDR allocations began, the United States reversed its former policy and provided sufficient liquidity. In the process a potential role for the XDR was removed. During this first round of allocations, 9.3 billion XDRs were distributed to IMF member countries.

The XDR resurfaced in 1978 when many countries were wary of taking on more foreign exchange reserve assets denominated in U.S. dollars. This suspicion of the dollar precipitated an allocation of 12 billion XDRs over a period of four years.

Concomitant with the financial crisis of 2007–08, the third round of XDR allocations occurred in the years 2009 and 2011. The IMF recognized the financial crisis as the cause for distributing the large majority of these third-round allotments, but some allocations were couched as distributing XDRs to countries that had never received any and others as a re-balancing of IMF quotas, which determine how many XDRs a country is allotted, to better represent the economic strength of emerging markets.

During this time China, a country with large holdings of U.S. dollar foreign exchange reserves, voiced its displeasure at the current international monetary system, and promoted measures that would allow the XDR to "fully satisfy the member countries' demand for a reserve currency." These comments, made by a chairman of the People's Bank of China, Zhou Xiaochuan, drew media attention, and the IMF showed some support for China's stance. It produced a paper exploring ways the substance and function of the XDR could be increased. China has also suggested the creation of a substitution account to allow exchange of U.S. dollars into XDRs. When substitution was proposed before, in 1978, the United States appeared reluctant to allow such a mechanism to become operational.

Use by developing countries

In 2001, the UN suggested allocating XDRs to developing countries for use by them as cost-free alternatives to building foreign exchange reserves through borrowing or running current account surpluses. In 2009, an XDR allocation was made to countries that had joined the IMF after the 1979–1981 round of allocations was complete (and so had never been allocated any). First proposed in 1997, many of the beneficiaries of this 2009 allocation were developing countries.

Concept of SDR is used to Settle Claims

The SDR isn't regarded as a currency or a claim against the IMF assets. Instead, it is a prospective claim against the freely usable currencies that belong to the IMF member states. The Articles of Agreement of the IMF define a freely usable currency as one that is widely used in international transactions and is frequently traded in foreign exchange markets.

The IMF member states that hold SDRs can exchange them for freely usable currencies by either agreeing among themselves for voluntary swaps, or by the IMF instructing countries with stronger economies or larger foreign currency reserves to buy SDRs from the less-endowed members. IMF member countries can borrow SDRs from its reserves at favorable interest rates, mostly to adjust their balance of payments to favorable positions.

Besides acting as an auxiliary reserve asset, the SDR is the unit of account of the IMF. Its value, which is summed up in U.S. dollars, is calculated from a weighted basket of major currencies: the Japanese yen, the U.S. dollar, the pound sterling and the euro.

The SDR Interest Rate

The interest rate on SDRs, or the SDRi, provides the basis for calculating the interest rate charged to member countries when they borrow from the IMF, and paid to members for their remunerated creditor positions in the IMF. It is also the interest paid to member countries on their own SDR holdings and charged on their SDR allocation.

Notes The SDRi is 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.

5.9 INTERNATIONAL MONETARY SYSTEM AND THE DEVELOPING COUNTRIES

The relationship between the IMF and its developing country members has been the subject of considerable debate over recent years. At the heart of this debate has been the issue of IMF conditionality and its appropriateness to developing countries. Having examined the importance of the IMF as a source of finance to developing countries this goes on to review IMF conditionality and to suggest certain ways in which it might be modified. It is concluded that the Fund is potentially of great significance to developing countries, particularly in the current world economic environment, and that its activities should be extended.

The current crisis has revived interest in reform proposals, and potentially presents the biggest opportunity for change to the international monetary system since 1944. This highlight one key idea: the creation of an international currency and system of international reserve pooling.

The UN General Assembly president's commission of experts on financial reform, chaired by Nobel laureate Joseph Stiglitz, recommended the creation of a global reserve system which "could contribute to global stability, economic strength, and global equity." They argued that "the global imbalances which played an important role in this crisis can only be addressed if there is a better way of dealing with international economic risks facing countries than the current system of accumulating international reserves." In practice, this could be achieved through an international clearing union - an idea of John Maynard Keynes, one of the architects of the Bretton Woods system. The clearing union would mean that national governments would no longer need to maintain their own foreign exchange reserves. Instead, they would rely on a pool of reserves contributed by all the nations of the world and managed by the clearing union.

This reserve pool would be denominated in a new international currency, such as the 'bancor' - Keynes' idea for a unit of exchange based on international commodity prices. Persistently large trade surpluses and deficits would be penalised by an interest charge, providing incentives for both surplus and deficit countries to change policy to eliminate the imbalances. National exchange rates would be changed, by mutual consent, at the clearing union, based on trade balances. Keynes' ideas remain an excellent basis to start a new discussion, but need updating in the context of freer mobility of capital and international financial flows.

This system could help to stabilize international exchange rates, reduce persisent and estabilising global imbalances and promote international economic cooperation, and should also help to stabilise commodity prices and prevent future financial crises. Reforms to the international monetary system should be rules-based but take into account the diverse needs of different countries. The institution that manages the system must be democratic and accountable.

The current crisis has shown that the international monetary 'system' has failed to deliver sustainable global prosperity, and has been beset by crises. While the persistent underdevelopment and under-investment in developing countries was evidence of this, the crisis has also demonstrated that it has not worked for rich countries either, where massive losses due to risky financial activity are being paid for from the public purse and economies endured deep recessions. In times of crisis there is much greater political will to create change. Agreement on ambitious but necessary reforms will take considerable negotiation. A fair, transparent process will be needed to undertake these negotiations: one that involves all countries of the world, and is open to civil society and parliaments, under the auspices of the United

Nations. This has been demanded by thousands of civil society organisations, but this call has not yet been heeded by the leaders of the G20. Notes

As the economic hegemony of the US wanes, there is a practical limit to how long the anachronistic system of a single country's currency serving as the vehicle for all global reserve holdings can be maintained. The creation of an international currency, international clearing union, and system of globally managed exchange rates should be on the agenda.

(1) A wide variety of exchange rate arrangements exist. Of the 172 members of the International Monetary Fund (IMF), 76 (all developing countries) have pegged or quasi-pegged exchange arrangements, 13 (including 9 of the 12 members of the European Economic Community) have managed flexibility, and another 83 (including the U.S., Japan, the United Kingdom, Italy, and Canada) have full flexibility. Two-thirds to four-fifths of world trade is, however, conducted under managed or full flexibility. 3 Therefore, the present system can be regarded more as a flexible than a fixed-exchange rate regime.

(2) Countries have almost complete freedom of choice of exchange rate regimes. All that the 1976 Jamaica Accords (which formally recognized prevailing exchange rate arrangements) requires is that a nation's exchange rate actions not disrupt its trade partners nor the world economy.

(3) Exchange rate variability has been substantial. This is true for nominal and real, bilateral and effective, short-run and long-run exchange rates. The IMF estimated that exchange rate variability has been about 5 times larger during the period of flexible exchange rate (i.e., since 1971) than under the preceding fixed exchange rate or Bretton Woods System. Exchange rate variability of 2 to 3% per day and 20-30% per year has been common under the present system. Exchange rate variability has been larger than originally anticipated, does not seem to be declining over time, and is for the most part unexpected.

(4) Contrary to earlier expectations, official intervention in foreign exchange markets (and therefore the need for international reserves) has not diminished significantly under the present flexible exchange rate system as compared with the previous fixed exchange rate system.

5.10 SUMMARY

The international community continues to assimilate and build upon the lessons of the global financial crisis; the IMF has embarked on a process to better understand the challenges facing the international monetary system (IMS). This process includes a review whose purpose is to identify the system's evolving shortcomings and lay the foundations for reforms that can strengthen resilience and long-term growth.

The work on the IMS also seeks to refine the IMF's role at the center of the global economy, building upon the last review conducted in 2011. The current review began with a set of papers, issued in March 2016, designed to enrich policy discussions within the Fund and in other key international settings, including at the G20. It will provide a narrative for various projects incorporated into the IMF Work Program, including the global financial safety net, the size of the Fund, the role of the SDR, the Fifteenth General Review of Quotas and analysis of capital flows.

The IMS review follows several IMF initiatives that were part of the reforms growing out of the crisis; for example, the introduction of integrated surveillance and the strengthening of financial sector surveillance, both intended to sharpen the Fund's focus on risks and vulnerabilities; the broadening of spillover work; and the overhaul of the lending toolkit.

The introduction of flexible exchange rates would relieve the central banks once and for all of any function in the international payments system and would remove any requirement to hold reserves for

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foreign payments. Flexible exchange rates will equilibrate the demand for and the supply of foreign exchange. The system will solve completely both the problems of liquidity and adjustment.

A substantial increase in the price of gold, its proponents argue, would solve the problem of international liquidity. If the price of gold was doubled, the value of the monetary stocks of gold would also be doubled. This would obviously lead to a large increase in world liquidity.

The countries that would especially benefit would be the United States and the EEC countries of Western Europe, which together hold 75-80 percent of the world's known monetary gold reserves. That the value of the existing stocks would increase. The proponents of an increase in the price of gold also argue that the long- term growth of the world supply would increase. This, however, is a more debatable point.

The keynes plan was proposed in 1943. A central feature of the plan is the establishment of a clearing union. In this sense, the Keynes plan aims at the creation of an international central reserve bank. This will be done as follows. A new international currency unit; called bancor, with a fixed value in gold will be created. At the same time, holdings of foreign currency will be abolished. Gold, however, will still be used for international monetary purposes. Thus, when the system is fully developed, only the two means of international payments will be in use: gold and bancor.

The Triffin plan resembles the Bernstein plan. It builds on the idea that international monetary reserves should be centralized. International Monetary Fund would work as a world Central Bank. Countries which now hold foreign exchange as part of their reserves will be required to hold an increasing proportion of their foreign exchange assets as deposits in the IMF. Thus, IMF will get reserves and the Central Banks will be credited with deposits. The deposits with the IMF will carry a gold guarantee.

The leading idea of the Bernstein plan is to give the IMF a more central place in the present international monetary system. The member countries now hold quotas in the IMF. These quotas, however, are not regarded as "the-first-line-reserves". At present, members have automatic access to the first 25 percent of their quotas (their gold subscriptions to the fund). Moreover they have almost automatic access to another 25 percent. Thereafter drawings from the fund are subject to increasingly stringent conditions of fund approval.

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Notes

Special drawing rights were created by the IMF in 1969 and were intended to be an asset held in foreign exchange reserves under the Bretton Woods system of fixed exchange rates. 1 XDR was initially defined as US$1, equal to 0.888671 g of gold. After the collapse of that system in the early 1970s the SDR has taken on a less important role. Acting as the unit of account for the IMF has been its primary purpose since 1972.

The relationship between the IMF and its developing country members has been the subject of considerable debate over recent years. At the heart of this debate has been the issue of IMF conditionality and its appropriateness to developing countries. Having examined the importance of the IMF as a source of finance to developing countries this goes on to review IMF conditionality and to suggest certain ways in which it might be modified. It is concluded that the Fund is potentially of great significance to developing countries, particularly in the current world economic environment, and that its activities should be extended.

5.11 SELF-ASSESSMENT QUESTIONS

1. Discuss the proposals for reforms of the International Monetary System.
2. What is Flexible exchange rate? Explain Flexible exchange rates revaluation of gold.
3. What is Keynes Plan for a clearing union? Discuss in details about Keynes Plan for a clearing union.
4. What is the triffin plan? Explain about the triffin plan.
5. Discuss about the Bernstein Plan.
6. What is Special Drawing Right? Explain about Special drawing rights under IMF.
7. Discuss International Monetary System and the developing countries.

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