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## Subject: International Finance(4549221)

### ✿ GLOBALIZATION & MULTINATIONAL FIRM ✿

#### **1. Introduction**

Financial management is mainly concerned with how to optimally make various corporate financial decisions, such as those pertaining to investment, capital structure, dividend policy, and working capital management, with a view to achieving a set of given corporate objectives.

In Anglo-American countries as well as in many advanced countries with well-developed capital markets, maximizing shareholder wealth is generally considered the most important corporate objective.

#### **Why do we need to study “international” financial management?**

- It is important to emphasize that the international flows of goods and capital that are the source of supply of and demand for currencies, and hence essential to the subject of international finance, are fundamental to our well-being.
- Improves a country's standard of living: the currency buys more in world markets.
- Not only does a strong currency allow citizens to buy more imports, they can also buy more domestically produced products that are internationally traded because a country's citizens have to compete with foreigners for their own country's tradable products.
- The gain in standard of living from a rising currency is also evident when living standards are compared between nations.



- International rankings of living standards require conversions of local currency incomes into a common measure, usually the US dollar.

A rising currency moves a country up the ladder by making local incomes worth more dollars.

Citizens also gain from the efficient global allocation of capital: when capital is allocated to its best uses on a global scale, overall returns are higher and these extra returns can be shared among the global investors.

## **2. Distinguishing Features of International Finance**

International Finance is a distinct field of study and certain features set it apart from other fields. The important distinguishing features of international finance from domestic financial management are discussed below:

### **2.1 Foreign exchange risk**

- An understanding of foreign exchange risk is essential for managers and investors in the modern-day environment of unforeseen changes in foreign exchange rates.
- In a domestic economy this risk is generally ignored because a single national currency serves as the main medium of exchange within a country.
- When different national currencies are exchanged for each other, there is a definite risk of volatility in foreign exchange rates.
- The present International Monetary System set up is characterized by a mix of floating and managed exchange rate policies adopted by each nation keeping in view its interests. In fact, this variability of exchange rates is widely regarded as the most serious international financial problem facing corporate managers and policy makers.

### **2.2 Political risk**



- Political risk ranges from the risk of loss (or gain) from unforeseen government actions or other events of a political character such as acts of terrorism to outright expropriation of assets held by foreigners.
- MNCs must assess the political risk not only in countries where it is currently doing business but also where it expects to establish subsidiaries.
- The extreme form of political risk is when the sovereign country changes the 'rules of the game' and the affected parties have no alternatives open to them.
- For example, in 1992, Enron Development Corporation, a subsidiary of a Houston based energy company, signed a contract to build India's longest power plant.
- Unfortunately, the project got cancelled in 1995 by the politicians in Maharashtra who argued that India did not require the power plant. The company had spent nearly \$ 300 million on the project. The Enron episode highlights the problems involved in enforcing contracts in foreign countries.
- Thus, episode highlights the problems involved in enforcing contracts in foreign countries.
- Thus, political risk associated with international operations is generally greater than that associated with domestic operations and is generally more complicated.

### **2.3 Expanded opportunity sets**

- When firms go global, they also tend to benefit from expanded opportunities which are available now. They can raise funds in capital markets where cost of capital is the lowest.
- In addition, firms can also gain from greater economies of scale when they operate on a global basis.

### **2.4 Market imperfections**



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- The domestic finance is that world markets today are highly imperfect.
- There are profound differences among nations' laws, tax systems, business practices and general cultural environments.
- Imperfections in the world financial markets tend to restrict the extent to which investors can diversify their portfolio.
- Though there are risks and costs in coping with these market imperfections, they also offer managers of international firm's abundant opportunities.



**One Word Question Answer**

Sr.No	Line	Question	Answer
1	1-2	The globalization of business activities have _____ the complexity of financial managers duty.	Increased
2	3-4	Due to globalization, the financial function has become _____	More demanding
3	5	IF discusses monetary interactions of at least _____	2 or more countries
4	6-7	_____ is not a characteristic of speculation.	Hedging
5	8-9	The responsibility of FEMA is vested with _____	RBI
6	11-12	GAAP knowledge is required in IF?	Yes
7	13-14	IF requires the knowledge of currency, swap, options etc?	Yes
8	16-17	When the share price increases in the market it is called?	Wealth maximization
9	19-20	What is <i>keiretsu</i> ?	different companies, including manufacturers, distributor, supply chain etc
10	21	Full form of GATT	General Agreement on Tariffs and Trade
11	22-23	Full form of NAFTA	North American Free Trade Agreement
12	23-24	The selling off state-run enterprises to investors is also known as?	Privatization
13	25-26	When one party can produce a good or service at a lower opportunity cost than another party is called?	Opportunity cost
14	28-29	People which are indirectly related to the company are called?	Stakeholder
15	30-31	IF makes market imperfect.	True
16	32-33	When stock is listed in international stock market also it is called?	Cross-border stock listing
17	34-35	There are ample options available in financing the domestic finance?	No
18	36-37	Economic and political factors affect IF?	Yes



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19	38-39	There are cultural and religious issue in domestic finance?	No
20	40	What is AS in IF?	Accounting Standard
21	41-42	_____is mainly concerned with how to optimally make various corporate financial decisions, such as those pertaining to investment, capital structure, dividend policy, and working capital management, with a view to achieving a set of given corporate objectives.	Financial Management
22	43-44	When different national currencies are exchanged for each other, there is a definite_____in foreign exchange rates.	risk of volatility
23	45-46	The domestic finance is that world markets today are _____	highly imperfect.
24	47-48	The present International Monetary System set up is characterized by a mix of floating and_____policies adopted by each nation keeping in view its interests.	Managed exchange risk



## INTERNATIONAL MONETARY FUND

### Introduction

- The International Monetary System, as we have today, has evolved over the course of centuries and defines the overall financial environment in which multinational corporations operate.
- The International Monetary System consists of elements such as laws, rules, agreements, institutions, mechanisms and procedures which affect foreign exchange rates, balance of payments adjustments, international trade and capital flows.
- This system will continue to evolve in the future as the international business and political environment of the world economy continues to change.
- The International Monetary System plays a crucial role in the financial management of a multinational business and economic and financial policies of each country.

Evolution of the International Monetary System can be analyzed in four stages as follows:

1. The gold standard, 1876-1913
2. The Inter-war Years, 1914-1944
3. The Bretton Woods System, 1945-1973
4. Flexible Exchange Rate Regime since 1973

### **1. The Gold standard: 1876-1913**

- In the early days, gold was used as a storage of wealth and as a medium of exchange.





- The gold standard, as an International Monetary System, gained acceptance in Western Europe in the 1870s and existed as a historical reality during the period 1875-1914.
- The majority of countries got off gold in 1914 when World War I broke out. The classical gold standard thus lasted for approximately 40 years.
- The center of the international financial system during this period was London reflecting its important position in international business and trade.
- The fundamental principle of the classical gold standard was that each country should set a par value for its currency in terms of gold and then try to maintain this value.
- Thus, each country had to establish the rate at which its currency could be converted to the weight of gold.
- Also, under the gold standard, the exchange rate between any two currencies was determined by their gold content.

### **Features of the gold standard:**

- First, the government of each country defines its national' monetary unit in terms of gold.
- Second, free import or export of gold
- Third, two-way convertibility between gold and national currencies at a stable ratio. The above three conditions were met during the period 1875 to 1914.
- The United States, for example, declared the dollar to be convertible to gold at a rate of \$20.67/ounce of gold.
- The British pound was pegged at 4.2474/ounce of gold. Thus, the dollar-pound exchange rate would be determined as follows.
- \$20.67/ounce of gold  $\frac{\$4.86656}{\text{€}}$   $\frac{\text{€}4.2474}{\text{ounce of gold}}$
- Each country's government then agreed to buy or sell gold at its own fixed parity rate on demand.



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- This helped to preserve the value of each individual currency in terms of gold and hence, the fixed parities between currencies.
- Under this system, it was extremely important for a country to back its currency value by maintaining adequate reserves of gold.
- Consider, by way of example, the US dollar in relation to the British pound and assume that the par value of the pound as defined by the dollar when the gold standard was in effect was \$4.86.
- If the cost of moving gold between the two countries was 2 cents per British pound, the fluctuation limit would then be 2 cents either above or below that par value.
- That is, the value of the pound sterling could move either up to \$4.88 or down to \$4.84. The upper limit was known as the 'gold export point'.
- The pound could not rise above the gold export point because the rate would then be greater than the actual cost of shipping gold.
- If the value of the gold export point was greater, a US importer would find it more economical simply to buy gold with dollars and ship the gold as a payment to the British creditor instead of paying, a higher price unnecessarily to buy pounds.
- It would be reasonable for the US importer to pay \$4.88 for each British pound but no higher than that.
- By the same token, the pound could not fall below \$4.84 — the lower limit known as the gold import point'. If the pound fell below \$4.84, a British importer would be better off converting pounds into gold for payment.
- The cost of shipping gold would be less than the high cost of buying dollars for payment. In doing so, the importer would export gold and the United States would gain more gold for its reserves.



- In actual practice, governments always stood ready to buy and sell gold to make certain that the exchange rate would not move outside of the established limits.

### **Price-Specie-Flow Mechanism**

- The mechanism was intended to restore equilibrium automatically. When a country's currency inflated too fast, the currency lost competitiveness in the world market.
- The deteriorating trade balance due to imports being greater than exports led to a decline in the confidence of the currency.
- As the exchange rate approached the gold export point, gold was withdrawn from reserves and shipped abroad to pay for imports.
- With less gold at home, the country was forced to reduce its money supply, a reduction accompanied by a slow-down in economic activity, high interest rates, recession, reduced national income and increased unemployment.
- It also restored order in case of trade surpluses by working in the opposite manner.
- As the country's exports exceeded its imports, the demand for its currency pushed the value toward the gold import point.
- By gaining gold, the country increased its gold reserves, enabling the country to expand its money supply.
- The increase in money supply forced interest rates to go lower, while heating up the economy.
- More employment, increased income and subsequently, increased inflation followed.
- Inflation increased consumers real income by overvaluing the currency, making it easier to pay for imports.
- With inflation, prices of domestic products would rise and become too expensive for overseas buyers.



- At the same time, foreign products would become more competitive and the balance of payments would become worse.
- Next would come a loss of gold and the need to deflate and the cycle would be repeated.

### **Decline of the Gold standard**

- One problem involved the price-specie-flow mechanism.
- One rule is that the currencies must be valued in terms of gold. Another rule is that the flow of gold between countries cannot be restricted.
- The last rule requires the issuance of notes in some fixed relationship to a country's gold holdings.
- Such rules, however, require the nations' willingness to place balance of payments and foreign exchange considerations above domestic policy goals and this assumption is, at best, unrealistic.
- Thus, the operation of the gold standard was not as automatic or mechanical as the price-specie-flow mechanism might lead one to believe.
- The gold is a scarce commodity, gold volume could not grow fast enough to allow adequate amounts of money to be created (printed) to finance the growth of world trade.
- The problem was further aggravated by gold being taken out of reserve for art and industrial consumption, not to mention the desire of many people to own gold.
- The banning of gold hoarding and public exporting of gold bullion by President Franklin Roosevelt was not sufficient to remedy the problem.
- Another problem was a country with high inflation and/or trade deficit was required to reduce its money supply and consumption, resulting in recession and unemployment.
- This was a strict discipline that many nations could not force upon themselves or their population.



- Instead of having sufficient courage to use unemployment to discourage imports, importing countries simply insisted on intervention through tariffs and devaluations, instead.
- Nations insisted on their rights to intervene and devalue domestic currencies in order to meet nationwide employment objectives.
- Because of the rigidity of the system, it was a matter of time before major countries decided to abandon the gold standard, starting with the United Kingdom in 1931 in the midst of a worldwide recession.
- With a 12 per cent unemployment rate, the United Kingdom chose to abandon the gold standard rather than exacerbate the unemployment problem. Monetary chaos followed in many countries.

## **2. Interwar Years: 1914-1944**

- The gold standard broke down during World War-I. Initially the international trading and payments system was dominated by flexible exchange rates
- Under this, the central banks of individual countries would exchange home currency for the currency of some other country on the gold standard rather than gold itself. In 1931, England departed from the gold standard in the face of massive gold and capital outflows.
- The gold exchange standard was finished. It was replaced by the use of independent and uncoordinated trade policies of individual countries.
- These included managed exchange rates: devaluations of currencies and protectionism.
- The result was a 'beggar-thy-neighbor' trade war in which nations cheapened their currencies in order to increase their exports at other's expense and reduce imports.
- The Great Depression was the result.
- Output and employment levels in individual countries came down for a decade.
- Only the extreme event like the World War-II could kick-start the economy again.



- The interwar period was characterized by economic nationalism, half-hearted attempts and failure to restore the gold standard, economic and political instabilities, bank failures, and panicky flights of capital across borders.
- No clear international monetary system prevailed during this period, with profoundly detrimental effects on international trade and investment.

### **3. The Bretton Woods System: 1945-1972**

- The depression of the 1930s, followed by another war, had vastly diminished commercial trade, the international exchange of currencies and cross-border lending and borrowing.
- What was left was only memories of what the system had once been.
- Revival of the system was necessary and the reconstruction of the post-war financial system began with the Bretton Woods Agreement that emerged from the International Monetary and Financial Conference of the united and associated nations in July 1944 at Bretton Woods, New Hampshire.
- There was a general agreement that restoring the gold standard was out of question, that exchange rates should basically be stable, that governments needed access to credits in convertible currencies if they were to stabilize exchange rates and that governments should make major adjustments in exchange rates only after consultation with other countries.
- The British wanted a reduced role for gold, more exchange rate flexibility than had existed with the gold standard, a large pool of lendable resources at the disposal of a proposed international monetary organization and acceptance of the principle that the burden of correcting payment disequilibria should be shared by both, surplus countries and deficit countries.
- The Americans favored a major role for gold, highly stable exchange rates, a small pool of lendable resources and the principle that the burden of adjustment of payment imbalances should fall primarily on deficit countries.



### **Negotiation at Brawn Woods made in 1944:**

- Each nation should be at liberty to use macroeconomic policies for full employment. (This tenet ruled out a return to the gold standard.)
- Free-floating exchange rates could not work. Their ineffectiveness had been demonstrated during the 1920s and 1930s. But the extremes of both permanently fixed and free-floating rates should be avoided.
- A monetary system was needed that would recognize that exchange rates were both a national and an international concern.
- The agreement established a dollar based International Monetary System and created two new institutions: The International Monetary Fund (IMF) and The International Bank for Reconstruction and Development (World Bank).
- The basic role of the IMF would be to help countries with balance of payments and exchange rate problems while the World Bank would help countries with post-war reconstruction and general economic development.
- The basic purpose of this new monetary system was to Facilitate the expansion of world trade and to use the US dollar as a standard of value.

### **The Bretton Woods Agreement produced three suggestions**

- (i) The stable exchange rates under the gold standard before World War I were desirable but there were certain conditions to make adjustments in exchange rates necessary
- (ii) Performance of fluctuating exchange rates had been unsatisfactory



(iii) The complex network of government controls during 1931-1945 deterred the expansion of world trade and investment. However, there were certain conditions which required government controls over international trade and payments.

Three major emphases on the stability of exchange rates by adopting the concept of fixed but adjustable rates.

- (i) no provision was made for the United States to change the value of gold at 535 per ounce
- (ii) each country was obligated to define its monetary unit in terms of gold or dollars.
- (iii) Other currencies were required to exchange their currencies for gold, US dollars remained convertible into gold at 335 per ounce.

- Thus, each country established par rates of exchange between its currency and the currencies of all other countries.
- Each currency was permitted to fluctuate within plus or minus one per cent of par value by buying or selling foreign exchange and gold as needed.
- However, if a currency became too weak to maintain its par value, it was allowed to devalue up to ten per cent without formal approval by IMF.

### **Features of Bretton Woods System**

1. A new institution, the International Monetary Fund (IMF), would be established in Washington DC. Its purpose would be to lend foreign exchange to any member whose supply of foreign exchange had become scarce. This lending would not be automatic but would be conditional on the member's pursuit of economic policies consistent with the other points of the agreement, a determination that would be made by IMF.

2. The US dollar (and, de facto, the British pound) would be designated as reserve currencies, and other nations would maintain their foreign exchange reserves principally in the form of dollars or pounds.





3. Each Fund member would establish a par value for its currency and maintain the exchange rate for its currency within one per cent of par value. In practice, since the principal reserve currency would be the US dollar, this meant that other countries would peg their currencies to the US dollar, and, once convertibility was restored, would buy and sell US dollars to keep market exchange rates within the 1 per cent band around par value. The United States, meanwhile, separately agreed to buy gold from or sell gold to foreign official monetary authorities at \$35 per ounce settlement of international financial transactions. The US dollar was thus pegged to gold and any other currency pegged to the dollar was indirectly pegged to gold at a price determined by its par value.

4. A Fund member could change its par value only with Fund approval and only if the country's balance of payments was in "fundamental disequilibrium." The meaning of fundamental disequilibrium was left unspecified but everyone understood that par value changes were not to be used as a matter of course to adjust economic imbalances.

5. After a post-war transition period, currencies were to become convertible. That meant, to anyone who was not a lawyer, that currencies could be freely bought and sold for other foreign currencies. Restrictions were to be removed and, hopefully, eliminated. So, in order to keep market exchange rates within 1 per cent of par value, central banks and exchange authorities would have to build up a stock of dollar reserves with which to intervene in the foreign exchange market.

6. The Fund would get gold and currencies to lend through "subscription." That is, countries would have to make a payment (subscription) of gold and currency to the IMF in order to become a member. Subscription quotas were assigned according to a member's size and resources. Payment of the quota normally was 25 per cent in gold and 75 per cent in the member's own currency. Those with bigger quotas had to pay more but also got more voting rights regarding Fund decisions.



## **The Breakdown of Bretton Woods System (Reasons for Failure)**

The Bretton Woods System worked without major changes from 1947 till 1971.

During this period, the fixed exchange rates were maintained by official intervention in the foreign exchange markets.

- International trade expanded in real terms at a faster rate than world output and currencies of many nations, particularly those of developed countries, became convertible.
- The stability of exchange rates removed a great deal of uncertainty from international trade and business transactions thus helping the countries to grow.
- Also, the working of the system imposed a degree of discipline on the economic and financial policies of the participating nations.
- During the 1950s and 1960s, the IMF also expanded and improved its operation to preserve the Bretton Woods System.
- The system, however, suffered from a number of inherent structural problems. In the first place, there was much imbalance in the roles and responsibilities of the surplus and deficit nations.
- Countries with persistent deficits in their balance of payments had to undergo tight and stringent economic policy measures if they wanted to take help from the IMF and stop the drain on their reserves.
- However, countries with surplus positions in their balance of payments were not bound by such immediate compulsions.
- Although sustained increases in their international resources meant that they might have to put up with some inflationary consequences, these options were much more reasonable than those for the deficit nations.



- The basic problem here was the rigid approach adopted by the IMF to the balance of payments disequilibrium situation.
- The controversy mainly centers around the 'conditionality issue,' which refers to a set of rules and policies that a member country is required to pursue as a prerequisite to using the IMF's resources.
- These policies mainly try and ensure that the use of resources by concerned members is appropriate and temporary.
- The IMF distinguishes between two levels of conditionality — low conditionality where a member needs funds only for a short period and high conditionality where the member country wants a large access to the Fund's resources.
- This involves the formulation of a formal financial program containing specific measures designed to eliminate the country's balance of payments disequilibrium.
- Use of IMF resources, under these circumstances, requires IMF's willingness that the stabilization program is adequate for the achievement of its objectives and an understanding by the member to implement it.

#### **4. The Flexible Exchange Rate Regime: 1973 – Present**

The turmoil in exchange markets did not cease when major currencies were allowed to float since the beginning of March 1973.

Since 1973, most industrial countries and many developing countries allowed their currencies to float with government intervention, whenever necessary, in the foreign exchange market.

The **alternative exchange rate systems** which followed are as mentioned below.

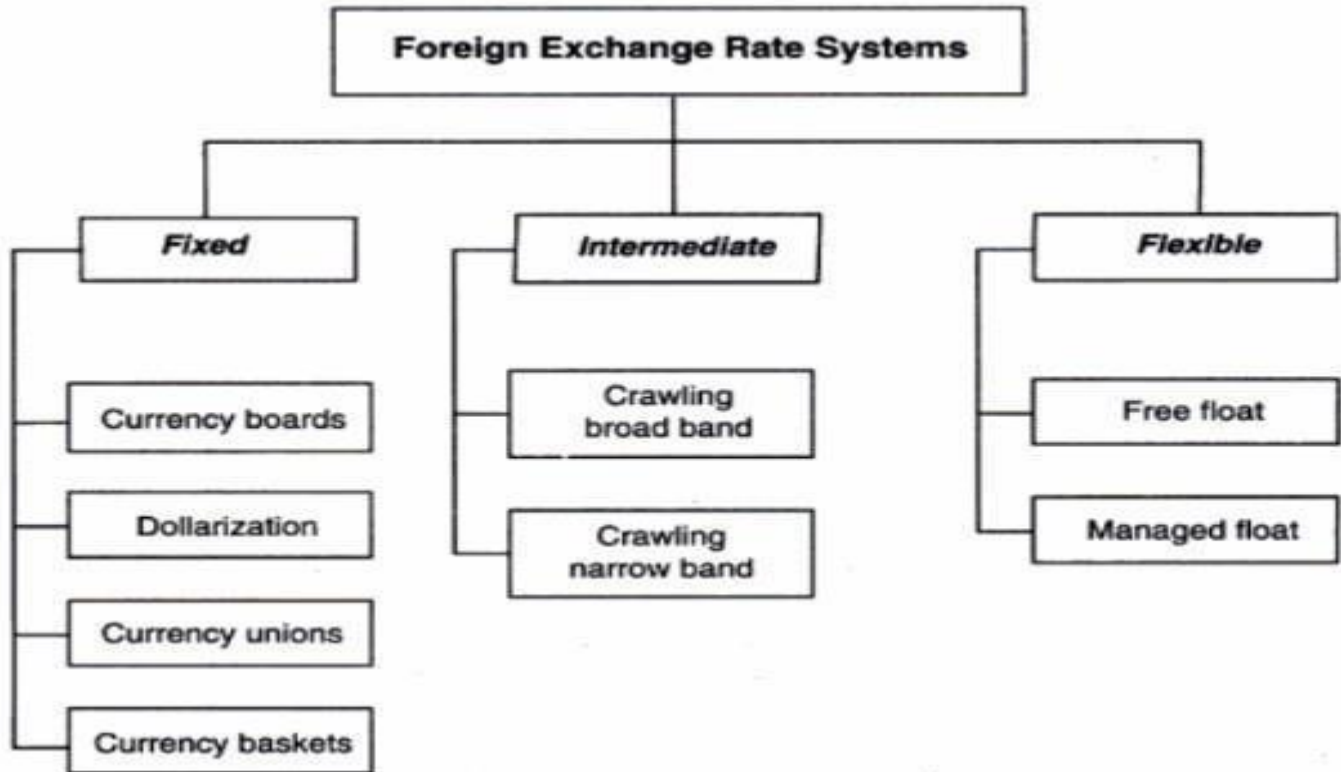
#### **Alternative Exchange Rate Systems**

- The international monetary system plays a vital role in the flow of goods, services, and capital across countries. It influences international trade and investments to a great extent.



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- There is a wide choice of exchange rate regimes to choose from, ranging from completely fixed to freely floating, with a number of options in between.
- A country can choose an exchange rate regime depending on the long-term goals of its economic policy. Countries differ not only in terms of the exchange rate regime they choose, but also in their approach to maintaining the value of their currency in the foreign exchange market.
- Some governments intervene in the foreign exchange market quite frequently: the intervention of some governments is intermittent; and other governments make no attempt to influence the value of their currencies in the foreign exchange market.
- Based on the degree of intervention, foreign exchange rate systems can be categorized into fixed, intermediate, and flexible systems, as shown in Figure 2.1.
- The spectrum of exchange rate regimes has systems like the independent floating exchange rate regime on one end and dollar nation on the other.
- Inter-mediate regimes exist between these two extremes.



Here, we shall discuss various types of exchange rate regimes that fall under the fixed exchange rate system, the flexible exchange rate system, and currency pegging.

## **1. Fixed Exchange Rate System**

- An exchange rate regime in which the government of a country is committed to maintaining a fixed exchange rate for its domestic currency.
- The monetary authority of a country may announce the par value, as well as a band of exchange rates within which the exchange rates may vary.
- The government of a country announces an exchange rate, called the parity rate, and defends it.
- To maintain the exchange rate, the government is always ready to buy or sell unlimited quantities of a foreign currency at a fixed rate.



- To prevent the exchange rate from appreciating, the government buys foreign currency in exchange for domestic currency.
- The increased supply of the domestic currency lowers its value.
- Similarly, to prevent the exchange rate from depreciating, the government buys domestic currency using the foreign currency.
- In order to make such transactions, the government must have sufficient quantities of foreign currency as well as domestic currency.
- When the government is not able to maintain sufficient supplies of these currencies, it fails to maintain the exchange rate.
- Thus, countries which adopt this exchange rate regime must strive to keep exchange rates stable even if the rates they choose deviate from the equilibrium.
- The gold standard and the gold exchange standard are two classical examples of the fixed exchange rate system.

### **Advantages of Fixed Exchange Rate System**

- It ensures stability and certainty in exchange rates.
- It creates confidence in the currency, which promotes international trade and investments.
- It facilitates domestic economic stabilization.

### **Disadvantages of Fixed Exchange Rate System**

- The exchange rates are determined by the monetary authorities without taking into consideration the demand for and supply of the currency.



- Sometimes, the exchange rates are determined by governments on the basis of certain extraneous considerations, leading to trade wars in the international market.
- Although each fixed exchange rate regime has certain rules, governments may bypass those rules for short-term gains.
- Exchange rates determined at the discretion of the monetary authorities cause uncertainty in the future exchange rates.
- The system is inflexible, and therefore leads to slow growth of international trade.

## **1.1 Currency Boards**

- A currency board is a country's monetary authority that issues its base money (notes and coins) and fixes the exchange rate.
- Under the currency board system, the domestic currency is anchored to a foreign currency, which is also known as the reserve currency.
- Although it is possible to fix the exchange rate in terms of a basket of currencies rather than one currency, the currency board may rigidly fix the exchange rate in terms of a single currency.
- The board selects a foreign currency which is strong, and this currency is internationally traded as the anchor currency.
- The value and stability of the local currency is directly linked to the value and stability of the anchor currency.
- The exchange rate in a currency board system is strictly fixed.
- For example, the Hong Kong dollar has been officially fixed at USD/HKD 7.80 since the currency board was introduced in 1983.
- A currency board can function alone or work in parallel to the central bank of the country.



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- If it functions along with the central bank, the central bank virtually loses its monetary autonomy.
- It cannot set interest rates and inject liquidity into the economy.
- A currency board is fully committed to the complete convertibility of the local currency into the anchor currency.
- There are no restrictions on individuals and businesses exchanging the locally issued currency with the anchor currency at a fixed rate, on both current account and capital account.
- To honor its commitment, a country under the currency board regime holds reserves of foreign currency (or gold or some other liquid asset) equal at the fixed rate to at least 100 per cent of the domestic currency issued.
- That is, a country under the currency board regime can issue domestic currency only when it has foreign exchange reserves to back it.
- Thus, in a currency board system, the money base (MO) is backed 100 per cent by foreign reserves. Countries such as Lithuania, Estonia, and Bosnia have their local currencies anchored to the euro. Argentina had a currency board system (anchored to the U.S. dollar) until 2002. Currency boards do not engage in discretionary monetary policy.
- The traditional currency board system had its roots in the English Bank Act of 1844.
- However, the currency board system no longer exists in its pure form today.
- These days, currency board-like systems exist instead.
- Present-day currency boards, for example, may not maintain 100 per cent reserves.
- Further, a central bank may be in place, but with specific rules dictating the level of the reserves it should maintain.
- The main advantage of the currency board system is that it offers the prospect of a stable exchange rate. Besides ensuring monetary discipline in the economy it generates fiscal discipline by preventing governments from direct monetary financing of government expenditure.





- Exchange rates under the currency board system are less risky and less prone to speculative attacks. However, the major problem with the currency board system is the loss of monetary independence.
- It is argued that the currency board system creates problems as it becomes very difficult to respond to external shocks by using monetary policy.

## **1.2 Dollarization**

- Dollarization is a generic term that refers to the use of any other currency (dollar or not) in place of a domestic currency as the legal tender.
- Some nations abandon their domestic currency and use one of the major reserve currencies.
- Panama has been using the U.S. dollar as the legal tender since 1904.
- Countries such as Ecuador and El Salvador dollarized in 1999.
- When a country is unable to manage its own economic affairs, it may become an adjunct to the country issuing the currency.

## **1.3 Currency unions**

- When a group of countries feel that multiple currencies and exchange rate fluctuations are seriously affecting their trade, they may adopt an exchange rate regime known as a currency union.
- In such a regime, countries decide to adopt a common currency so that, by definition, exchange rates between the member countries of the union disappear.
- The largest currency union in the world has been formed by 12 countries of the European Union, using the euro as its common currency.

## **1.4 Currency baskets**



- Pegging a currency to another single currency might be risky at times.
- So, a country might peg its currency to a basket of foreign currencies.
- A basket of currencies is likely to be less variable than a single currency.
- If the currencies for a basket are chosen correctly, the resulting peg will be more stable.
- However, managing such a peg can be quite cumbersome.
- When the currencies are not equally important, weights should be assigned to each currency in accordance with the economic power of the nations included in the basket.
- For this reason, currency baskets often include a small number of major currencies.

## **2. Flexible Exchange Rate System**

Changes in exchange rates occur continuously and automatically as the exchange rate is free to move according to the changes in demand and supply.

### **Advantage of flexible exchange rate system**

- The flexible exchange rate system allows the foreign exchange market to determine what a currency is worth.
- In the long run, it keeps the balance of payments of all countries in equilibrium through an automatic adjustment mechanism.
- For example, if a country has a deficit in its balance of payments, the exchange rate of its currency depreciates.
- This makes the country's exports cheaper and its imports dearer.
- Conversely, if a country has a balance of payments surplus, the exchange rate of its currency appreciates.



- Its exports become dearer and its imports become cheaper as a consequence.
- This ultimately results in adjustments in the country's balance of payments.
- It has been observed that a balance of payments disequilibrium can be corrected with fewer disruptions to the domestic economy through a flexible exchange rate system than through the fixed exchange rate system.
- If a country is able to control its trade deficit through the flexible exchange rate system, it implies that it has a strong economic system.
- A country can boost its image and attract foreign investments by adopting a flexible exchange rate system.
- Under the flexible exchange rate regime, there is no need to bother about tariffs, subsidies, and quotas, etc., as they are automatically taken care of by market forces and, consequently, by the exchange rates.
- Different countries follow different economic policies and, therefore, different cost—price relationships exist. The flexible exchange rate system reflects the true cost—price relationship between two countries.
- Another great advantage of the flexible exchange rate system is that it allows countries to pursue their own economic policies and to maintain their economic sovereignty.

### **Disadvantages of Flexible Exchange Rate System**

- The flexible exchange rate system cannot ensure stability in exchange rates, which results in uncertainty and speculation.



- It is argued that the flexible exchange rate system creates uncertainty for activities involving the inflow and outflow of foreign exchange.
- This uncertainty throws business planning out of gear, leading to economic instability and slow growth of the world economy.
- The flexible exchange rate system may encourage speculation in the foreign exchange market and cause violent fluctuations in the exchange rates. This constitutes an additional risk to international trade and investment.
- Countries under the flexible exchange rate system may also witness a high rate of inflation.
- Countries have to keep their money supply and inflation under control in a fixed exchange rate system, but countries with a flexible exchange rate system face no such compulsions.
- This may result in a high rate of inflation.

## **2.1 The free float**

- In a free float, there is no intervention by the monetary authority in the foreign exchange market. Exchange rates vary in accordance with changes in the demand and supply of a currency.
- Demand and supply are influenced by several factors, which may include economic factors, social factors, political factors, and technological factors.
- Changes in the environment, and those in the economic environment in particular, occur at random.
- As market participants respond to new information instantaneously, the exchange rate keeps changing. The free float is also known as the pure float or the clean float.

## **2.2. The managed float**

- Under such a system, the monetary authority of the country may occasionally intervene in the foreign exchange market, and buy and sell the domestic currency.



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- Intervention by the government in the foreign exchange market to smooth out exchange rate fluctuations is known as a managed float or a dirty float.
- The managed float is primarily aimed at eliminating excess volatility and reducing uncertainty.
- When a government does not make an upward or downward change in its exchange rate when such a change is warranted, it also amounts to a managed float.
- This is because a managed float is not only for smoothing out daily fluctuations, but also for moderating or preventing short-term or medium-term fluctuations.
- Where there is light intervention by the monetary authority in the foreign exchange market to moderate excessive fluctuations, the float is a lightly managed one, and in such cases the foreign exchange rate is essentially determined by the market forces.



## ONE WORD SUBSTITUTION

SR.No	Line no	Question	Answer
1	2	Period of Bimetallism.	1875
2	3	Period of Classical Gold.	1875-1914
3	4-5	Period of Bretton Woods System.	1945-1972
4	6-7	Period of Inter-War period	1915-1944
5	8-9	Period of Flexible Exchange Rate Regime	1973-Present
6	11-12	Which metals were used in bimetallism?	Gold & Silver
7	13-14	India was on which metal in bimetallism	Silver
8	16-17	Britain remained in Bimetallism till?	1816
9	18-19	US remained in Bimetallism up to?	1873
10	20-21	France remained in Bimetallism system up to?	1878
11	23-25	Which law states “ bad money drives out good”.	Gresham's Law
12	26-27	Misalignment of exchange rates and international imbalances of payment were automatically corrected by the ?	<i>price-specie-flow mechanism</i>
13	28-29	<i>Price-specie-flow mechanism was invented by?</i>	David Hume
14	30-31	Price-specie-flow mechanism was intended to restore equilibrium automatically is it correct?	True
15	32-33	Scarcity of metal is shortcoming of classical gold system.	True
16	34-35	Deflationary situation can be faced in classical gold.	True
17	37-38	What was the purpose of Bretton Wood System?	design a postwar international monetary system.
18	39-40	Each country was responsible for maintaining its exchange rate within how much in Bretton Wood? _	±1%
19	42-44	The Bretton Woods system was a dollar-based gold exchange standard?	Yes



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20	45-46	Countries were earning interest in Bretton wood system?	Yes
21	49-50	Jamaica Agreement was done in?	January 1976
22	51-52	The largest number of countries, about 48, allow market forces to determine their currency's value.	Free float
23	53-54	A basket currency constructed as a weighted average of the currencies of 5 member countries is called?	European Currency unit
24	55-56	How many countries adopted EURO?	11
25	57-58	When was EURO currency enforced?	1 January 1999
26	60-62	Through EURO currency stability was done?	Yes



## ☼ BALANCE OF PAYMENT ☼

### Introduction

The balance of payments, which is a statistical record of a country's transactions with the rest of the world, is worth studying for a few reasons.

**First**, the balance of payments provides detailed information concerning the demand and supply of a country's currency. For example, if the United States imports more than it exports, then this means that the supply of dollars is likely to exceed the demand in the foreign exchange market, *ceteris paribus*. One can thus infer that the U.S. dollar would be under pressure to depreciate against other currencies. On the other hand, if the United States exports more than it imports, then the dollar would be likely to appreciate.

**Second**, a country's balance-of-payment data may signal its potential as a business partner for the rest of the world. If a country is grappling with a major balance-of-payment difficulty, it may not be able to expand imports from the outside world. Instead, the country may be tempted to impose measures to restrict imports and discourage capital outflows in order to improve the balance-of-payment situation. On the other hand, a country experiencing a significant balance-of-payment surplus would be more likely to expand imports, offering marketing opportunities for foreign enterprises, and less likely to impose foreign exchange restrictions.

**Third**, balance-of-payments data can be used to evaluate the performance of the country in international economic competition. Suppose a country is experiencing trade deficits year after year. This trade data may then signal that the country's domestic industries lack international competitiveness. To interpret balance-





of-payments data properly, it is necessary to understand how the balance-of-payments account is constructed.

## **1. Concept & Features of BOP**

Balance of Payment is the systematic summary of the economic transactions of the residents of a country with the rest of the world during a specific time period, normally a year. The following features of the balance of **payments** are implicit in the above definition:

### **1. Economic Transactions**

The statement is a summary of economic transactions of the country with the outsiders. An economic transaction arises when values are exchanged or moved between nations. These may arise from:

1. Movement of goods in the form of exports and imports.
2. Rendering of services abroad and using foreign services.
3. Gifts/gains from one country to another.
4. Investments made abroad or received from abroad.
5. Income on investments received from abroad or remitted abroad.
6. Increase or decrease in the international reserves of the country.

### **2. Residents with Non-residents**

Generally, transactions which take place between the residents of the country with residents of other countries are recorded in the balance of payments. Residents may mean individuals, institutions, corporate bodies, government departments, etc. domiciled in the country. Units or branches of multinational companies domiciled in the country are also residents and them



transactions with their parent or branches abroad also are reflected in the balance of payments.

### **3. A Flow Statement**

A balance of payments is compilation of the flow of economic transactions of the country during the period and not a statement of the position as on a date. It is more like a funds flow of a company, rather than balance sheet. For instance, if the balance of payments shows USD 300 million as plus in non-resident deposits, it means the balances held by the non-residents of the country with banks in India has changed during the period by USD 300 million; it does not mean the aggregate of such balances is USD 300 million.

### **4. Periodicity**

Normally balance of payments statement is prepared covering a period of one year. However, depending upon the requirement of the government the statement may be prepared for shorter periods also, such as six months, a quarter or a month.

Balance of payment statement is presented with three major components:

1. Current Account
2. Capital Account
3. Official Reserve Account

To draw an analogy with the final accounts of a business entity, the **Current Account** is similar to **Profit and Loss account** which shows the income and expenses of entity during a year.



The **Capital Account (including the official reserves account)** is a Balance Sheet, or to be more precise, the **fun**ds flow statement, the first part showing the changes in assets and liabilities of the entity and second part revealing changes in its equity.

## **1. Current Account**

The current account of the balance of payments refers to transactions in goods and services, income and current transfers. In other words, it covers all transactions between residents and non-residents other than financial items.

### **1.1 Merchandise Trade**

**Merchandise represents** exports and import of commodities from/into India. The credit in the item represents exports and debit represents imports. The net balance, being the difference between exports and imports is known as the *balance of trade*.

### **1.2 Invisibles**

Item II of the statement includes services, transfers and investment income. It is titled invisibles to distinguish from merchandise trade, also known as visible trade.

**Travel** covers expenditure incurred by non-resident travelers during their stay in the country. It excludes international passenger services, which are included in 'transportation'. Debit entries represent exchange sold for private and official travel.

**Transportation** covers all receipts and payments on account of international transportation services.

**Insurance** covers all receipts and payments relating to all types of insurance as well as reinsurance.



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**Government not included elsewhere** relates to receipts and payments on government account not included elsewhere as well as receipts and payments on account of maintenance of embassies and diplomatic missions and offices of international institutions such as UNO, WHO etc.

**Miscellaneous items** cover receipts and payments in respect all of all other services such as agency services, technicians, and professional services, technical know-how, royalties, subscriptions for periodicals etc.

**Transfer Payments** or Unilateral transfer represent all receipts and payments without a quit pro quo. They include items like aid and grants received from/extended to foreign governments, migrants' transfer, repatriation of savings, remittances for family maintenance, contributions and donations to religious organizations and charitable institutions etc.

**Investment Income** relates to remittances, receipts and payments on account of profits, dividends, interest and discounts including interest charges and commitment charges on foreign loans including those on purchase from International Monetary Fund.

**Compensation to Employees** covers wages, salaries, and other benefits, in cash or kind, and includes those of border, seasonal and other non-resident workers.



### 1.3 Balance on Current Account

What is important for decision making is not the absolute figures of exports/receipts and imports/payments, but their difference which shows whether the country has earned or lost foreign exchange. Two important measures in this regard are (i) balance of trade and (ii) balance of payment.

**Balance of trade** refers to the net difference between the value of export and import of merchandise or the

#### A. Current Account

##### I. Merchandise

##### II. Invisibles

###### (a) Services

(i) Travel

(ii) Transportation

(iii) Insurance

(iv) Government not included elsewhere

(v) Miscellaneous

###### (b) Transfers

(i) Official

(ii) Private

###### (c) Income

(i) Investment Income

(ii) Compensation to employees

#### Total Current Account (I+II)

visible trade. When the aggregate exports of goods from the country during the period exceed its aggregate import, the balance of trade is said to be favorable or surplus or positive. If the imports exceed exports, the



balance of trade is unfavorable or deficit or negative. Since any given period, the balance of trade will show either a favorable or unfavorable balance.

**(Balance of Trade = Export of Physical Goods – Imports of Physical Goods) ..... (i)**

**Balance of Payment** includes the foreign trade in its broad sense and includes not only visible trade but invisible items also. Thus, this term is more comprehensive than balance of trade. In other words, balance of payments represents balance of trade plus balance on invisibles. It would be more appropriate to call this balance of payments on current account as it includes the net balance of all items included in current account. As in case of balance of trade, the total amounts receivable and payable on current account do not balance and the balance of payments for a given period ends up in a favorable or unfavorable balance.

**(Balance of Payment = Export of Goods & Services – Imports of Goods & Services).....(ii)**

## **2. Capital Account**

The capital account represents transfer of money and other capital items and changes in the country's foreign assets and liabilities resulting from the transactions recorded in the current account.

### **B. Capital Account**

#### **I. Foreign Investment**

##### **(a) Foreign Direct Investment**

(i) In India

(ii) Abroad

##### **(b) Portfolio Investment**

(i) In India

(ii) Abroad

#### **II. Loans**

##### **(a) External Assistance**

(i) By India

(ii) To India

##### **(b) Commercial Borrowings (MT & LT)**

(i) By India

(ii) To India



(c) *Short-term Loans to India*

III. **Banking Capital**

(a) *Commercial Banks*

(i) Assets

(ii) Liabilities

(b) *Others*

IV. **Rupee Debt Service**

V. **Other Capital**

**Total Capital Account (I to V)**

**2.1 Foreign Investment in India** is the amount invested by non-residents in the equity of entities in India.

The difference between direct and portfolio investment is one of intention of the investor.

**Foreign Direct Investment (FDI)** reflects lasting interest of the investor in the entity and his intention to take active role in management of the company. Investment in equity by the direct investor and the amount accruing on original investment but retained in the country fall under the category of direct investment.

**Foreign Portfolio Investment (FPI)** covers transactions in equity securities other than direct investment. The investor does not intend to take part in the management of the company. Foreign investment abroad is the amount invested by residents in entities abroad.

**2.2 Loans** comprise external assistance, commercial borrowings and short-term loans.

External Assistance is borrowings from multilateral organizations like World Bank and from bilateral sources, mainly on concessional terms.

**Commercial Borrowings** are debts owed to international banks, borrowings in bond markets, credit agencies and loans provided on commercial terms by specialized multilateral or bilateral institutions like International Finance Corporation.

**Short Term Borrowings** are those repayable within one year.



**2.3. Banking Capital** covers the assets and liabilities of commercial banks, non-resident deposits accounts and other financial institutions.

**2.4. Rupee Debt Service** is the payments under rupee/rouble agreement with Russia.

**2.5. Other Capital** includes any capital transaction not included in the above.

## **2.6 Balance on Capital Account**

Balance of Capital Account is the net of inflows and outflows on capital transactions. It is also appropriate to call this balance on private capital account as this excludes movement in official reserves.

**(Balance on Capital Account = Capital Inflow – Capital Outflow) ..... (iii)**





**ONE WORD SUBSTITUTION**

Sr.No	Line.No	Question	Answer
1	1-2	The statement records of a country's international transactions over a certain period of time presented in the form of double-entry bookkeeping.	Balance of Payment
2	3	The balance of payments provides detailed information concerning the demand and supply of a country's currency.	Yes
3	4-5	A country's balance-of-payment data may signal its possible as a business partner for the rest of the world.	True
4	6-7	If the debits exceed the credits, then a country is running a?	<i>trade deficit</i>
5	8	If the credits exceed the debits, then a country is running a?	Trade surplus
6	10-11	Current account includes all imports and exports of goods and services.	True
7	12-13	_____represents exports and import of commodities from/into India.	Merchandise
8	14	Merchandise trade is also known as?	Visible trade
9	15-16	_____include items like aid and grants received from/extended to foreign governments, migrants' transfer, repatriation of savings, remittances for family maintenance, contributions and donations to religious organizations and charitable institutions etc.	Transfer payment
10	18-19	_____covers wages, salaries, and other benefits.	Compensation of employees
11	21-22	Export of Physical Goods – Imports of Physical Goods is known as?	Balance of Trade
12	23-25	Export of Goods & Services – Imports of Goods & Services is known as?	Balance of Payment
13	26	_____in India is the amount invested by non-residents in the equity of entities in India.	Foreign Investment
14	27-28	The depreciation in the currency rate may deteriorate the trade for while then the trade will tend to improve that curve is known as?	J Curve



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15	30-31	_____assets include gold, foreign currencies, SDRs, reserve positions in the IMF.	Official Reserve
16	32-33	_____includes omissions and mis recorded transactions—so we use a “plug” figure to get things to balance.	Statistical Discrepancy
17	35	$BCA + BKA + BRA = 1$	False
18	36-37	Under a pure flexible exchange rate regime, $BCA + BKA = 0$	True
19	38-39	Full form of SDR	Special Drawing Rights.
20	40-42	The value of the SDR is based on a basket of how many currencies?	5
21	43-45	_____service is the payments under rupee/rouble agreement with Russia.	Rupee Debt
22	46-48	Balance on Capital Account = Capital Inflow – Capital Outflow	True
23	50-52	_____comprise external assistance, commercial borrowings and short-term loans.	Loans



## 🌀 MARKET FOR FOREIGN EXCHANGE 🌀

### 1. Introduction

- In the past, forex transactions were conducted primarily by telegram, telephone, or telex.
- But there has been a lot of progress in forex trading in recent years.
- The latest development in foreign exchange trading is **electronic trading** —a method of trading that enables market participants, particularly large financial institutions, to set up algorithmic trading systems and provide trading facilities to retail investors.
- Parties in the foreign exchange market can see bid ask rates quoted by potential counterparties on their computer screens, match their orders, and make deals electronically.
- The electronic trading system has all the advantages of voice trading, besides being faster and more reliable. Electronic trading also manages credit lines.
- 'With the advent of high-speed digital data lines and satellite-based communication systems, foreign exchange transactions are now carried out rapidly and in real time.
- In fact, in most cases of currency trading, there is no physical transfer of paper notes and coins, but a series of book or digital entries made in the accounts of the two parties—the buyer of the currency and the seller of the currency—to record their new positions.
- In view of developments in computing and communication technologies, particularly in international communications networks, foreign exchange markets all over the world have virtually become one sophisticated global market with more than USD 3 trillion worth of trade taking place every day
- Foreign exchange markets were originally conceived to facilitate international trade.
- Over the years, these markets have become an integral organ of the world economy.



- Now forex markets are indispensable institutional machinery that facilitates not only cross-border payments but also cross-border capital flows and overseas investments.

## **2. Concept of Forex 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.

## **3. Functions of Forex Market**

The foreign exchange market serves two main functions:

1. Convert the currency of one country into the currency of another
2. Provide some insurance against foreign exchange risk.

However, Consumers can compare the relative prices of goods and services in different countries using exchange rates. International business have four main uses of foreign exchange markets

1. To exchange currency received in the course of doing business abroad back into the currency of its home country
2. To pay a foreign company for its products or services in its country's currency
3. To invest excess cash for short terms in foreign markets
4. To profit from the short-term movement of funds from one currency to another in the hopes of profiting from shifts in exchange rates, also called currency speculation.

## **4. Features of Forex Market**

### **1. Location – Major Centers**



- This market is described as an OTC (Over the Counter) market as there is no physical place where the participants meet to execute the deals, as we see in the case of stock exchange.
- It is more than an informal arrangement among the banks and brokers operating in a financial center purchasing and selling currencies, connected to each other by telecommunication or telex, telephone and a satellite communication network, SWIFT.
- London has become the largest foreign exchange trading center, mainly because of the unique advantage of its business hours lapping with those of many other foreign exchange trading centres such as New York, Frankfurt, Tokyo and Singapore.

### 2. 24x7 Market

- The global foreign exchange market is a **twenty-four-hour, non-stop market**.
- It has no fixed trading floor, no prescribed working hours, and no single governing authority.
- Currency trading is carried out round the clock, around the globe.
- As foreign exchange centres are spread throughout the world, at any given point in time, some centres are closed while others are open for trade.
- For instance, Europe's morning hours overlap with the late hours in Asia, and Europe's afternoon hours correspond to the morning hours in North America.

### 3. Real Time Market & Heavy Trading During Overlapping Hours

- The different time zones make the global foreign exchange market a **real-time market**.
- Some centres are characterized by **very heavy trading** during certain times when their business hours overlap with those of many other trading centres.
- For example, the morning business hours of New York and the afternoon business hours of London overlap and therefore very heavy trading takes place during these hours in these two centres.



- This happens because participants can have access to the maximum number of potential buyers and sellers when many trading centres are open.

#### **4. Highly Liquid**

- The forex market has enticed retail currency traders from all over the world because of its benefits.
- One of the benefits of trading currencies is its massive trading volume, which covers the largest asset class globally. This means that currency traders are provided with high liquidity.

### **5. Participants**

#### **5.1 Corporates**

- Corporations and high-net-worth individuals: Domestic as well as Multi-national Corporation participates in the foreign exchange market to convert their foreign currency-denominated export receipt, foreign borrowings, and foreign remittances into their Home currency.
- They may also buy foreign currency to make import payments, interest payments, and loan repayments, and to invest funds abroad.
- Some high-net-worth individuals also participate in the foreign exchange market to meet their investment needs.

#### **5.2 Commercial banks**

- Originally, commercial banks used to buy and sell foreign currencies for their customers as part of their financial services.
- They later took on foreign exchange trading as their principal business.
- Commercial banks have also found it useful to trade with each other.



- As commercial banks trade in large volumes of foreign exchange, the wholesale segment of the foreign exchange market has become an interbank market.

### **5.3 Exchange Brokers**

- Exchange brokers facilitate deal between banks. In the absence of exchange brokers, banks have to contact each other for quotes.
- If there are 150 banks at a centre, for obtaining the best quote for a single currency, a dealer may have to contact 149 banks.
- Exchange brokers ensure that the most favorable quotation is obtained and at low cost in terms of time and money.
- The bank may leave with the broker the limit up to which and the rate at which it wishes to buy or sell foreign currency concerned.
- From the indents from other banks the broker will be able to match the requirements of both.
- The names of the counterparts are revealed to the banks only when the deal is acceptable to them.
- Till then anonymity is maintained.
- Exchange brokers tends to specialize in certain exotic currencies, but they also handle all major currencies.

### **5.4 Central banks:**

- The central banks of different countries may also participate in the foreign exchange market in order to control factors such as money supply, inflation, and Interest rate by influencing exchange rate movements in a particular direction.
- In other words, the intervention of the central bank is warranted when the government wants to maintain target exchange rates or avoid violent fluctuations in exchange rates.



- Even talk of possible central bank intervention may sometimes lead to stabilization of the exchange rate.

## **6. Purpose of Transacting**

### **6.1 Hedgers**

- Hedgers are those who have an exposure to a risk and resort to foreign exchange market as a mean, of covering their position.
- They trade with an objective to minimize their risk in trading or holding underlying securities.
- Hedging is the method of entering into an opposite position in the market to that of the position held in a currency, so that ultimately the position becomes zero.
- For instance, an exporter who has a receivable in dollars due six months hence can hedge his position by entering into a forward exchange contract with his bank to sell dollars.
- The positive position in dollar under receivables is offset by the sale made under the forward contract.
- His overall position in dollars becomes zero.
- A **treasurer** who is risk averse may seek. cover in the market for every exposure. He will do so irrespective of the expectations about the exchange rate to prevail on the due date.
- On the other hand, a treasurer with a risk appetite looks not only at the risk, but also the desirability of keeping his position so as to earn opportunity profits from exchange rate movements.
- He weighs the cost of hedging with losses likely to be incurred by keeping the position open.
- He also measures the profits likely to be earned when the position is kept open.
- He resorts to hedging only when the benefits expected from covering the position are greater than the cost.

### **6.2 Speculators:**





- Speculators enter into deals with the expectation of making profit out of such transactions.
- A speculator watches the market carefully and makes his own estimates of the future movements in the rates.
- Based on his estimates he makes moves in the market and hopes to gain from the ultimate results.
- For instance, if the speculator calculates that the dollar will appreciate in future he will accumulate dollars at the current rate with the intention of selling them at a higher price later.
- When a speculator feels strongly that the market will behave differently from general sentiments, he perceives an opportunity for profits by taking appropriate position in the currency concerned.
- This urge to make money and attitude towards taking risks makes a speculator ideal person to act as a seller of the financial products in the foreign exchange market.
- Speculators as class are risk-takers.
- They are the cause for both volatility and efficiency of the market.
- As a result of the speculative activities, the market may show excessive reaction to the event as and often the rates may overshoot.
- The cumulative wisdom of the speculators who do not react in the same way enables the market to discount all the information and function efficiently.

### **6.3 Arbitragers:**

Arbitrageurs are careful lot who keep constant vigil on them across products and locations to identify temporary imperfection and convert such opportunities into riskless profits. In the pure form of arbitraging, the operator

(a) has no investment; and

(b) simultaneously buys and sells in different markets and/or for different periods which ensures riskless profits to him



- Suppose that an arbitrageur finds that the dollar is quoted differently in two markets, say Singapore and London.
- He can buy from the market quoting dollar cheaper and sell it in the market where it is quoted high. The difference realized, less the transaction cost, will be his profit.
- Similar actions by a large number of arbitrageurs will increase the demand for dollar where it is quoted low and push up the price.
- In the market where the price rules high, supply will increase due to the action of the arbitrageurs and consequently the price will fall.
- Thus the arbitrage possibility will be only momentary and prices in the market will be soon restored to a level where arbitraging is not possible.

## 7. Foreign exchange rates:

- The price of one currency in terms of another currency is known as **foreign exchange rate**.
- Depending on the performance of the participant, a currency is identified as the domestic or home currency, or a foreign currency.
- For example, from the perspective of an Indian participant, the Indian rupee is the home currency and any other currency is a foreign currency.
- Similarly, for a U.S. dollar is the home currency and any other currency is foreign currency.
- In general, foreign exchange rate is the price if one currency quoted in terms if another currency.
- The foreign exchange rate is known as the forex rate or FX rate Currencies are always traded up pairs. Foreign exchange trade involves the buying of one currency and the selling of another currency.



- Buying of one currency (taking a long position) always involves seeking another currency. Thus, a foreign exchange rate is always quoted for a pair of currencies.
- Traditionally, currency pairs are separated with a solidus (e.g., USD/INR) or a hyphen (e.g. USD-INR). According to established convention, the first currency in the pair is the **base currency** and the second currency is referred to as the counter or **quote currency**.
- One unit of the **base currency**, also known as the underlying or fixed currency, is traded for variable amount of the **quote currency**.
- For example, in the currency pair USD/INR, USD is the base currency and INR is the quote currency. The rate of exchange between these two currencies is expressed in terms of the amount of INR to be received or paid per U.S. Dollar.

### **7.1 Direct Quotes and Indirect Quotes:**

- There are two kinds of Exchange rate quotations; direct and indirect.
- **A direct quote** is the number of units of home currency that can be exchanged for one unit of a foreign currency.
- **An indirect quote** is the number units of a foreign currency that can be exchanged for one unit of the home currency.
- For example, the exchange rate between the Indian rupee and the U.S. dollar can be stated as either INR/USD or USD/INR.
- The expression INR/USD indicated the amount of Indian rupee necessary to acquire one U.S. dollar, and the expression USD/INR indicated the amount of U.S. dollars necessary to acquire one unit of the Indian rupee.
- For an Indian participant, USD/INR 44 is a direct quote, and INR/USD 0.0227 is an indirect quote.



- As the indirect quote is the reciprocal of the direct quote, one can obtain an indirect quote, given a direct quote and vice versa.

## **7.2 American Terms and European Terms**

- Rate quoted in accounts of U.S. dollar per unit of foreign currency is known as quote is **American terms**, while rates quoted in amounts of foreign currency per U.S. dollar are known as quotes in **European terms**.
- For example, USD 1.9569/GBP, read as 1.9569 U.S. dollars per British pound is a quotation in American terms.
- Thus, in American terms, the foreign exchange quotation gives the U.S dollar price of one unit of the foreign currency.
- In contrast, quotations in European terms state the foreign currency price of one U.S. dollar.
- For example, GBP 0.5110/USD, read as 0.5110 British pounds per U.S. dollar, is a quotation in European terms.
- As most Asian European currencies are quoted in European terms (a certain number of units per U.S. dollar), the UAD is the most frequently used base currency in the foreign exchange market.
- Of late, the euro has also become a base currency against many currencies, particularly for European countries.
- It should be noted that American terms and European terms are reciprocals.

## **7.3 Bid – Ask rate**

- In the foreign exchange market, market makers are always ready to buy or sell currencies by quoting two rates-the bid rate and the ask rate.
- For example, a bank may quote USD/INR:39.5470/39.5480.



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- The component before the solidus is the bid rate and the one after the solidus is the ask rate or the offer. Quotes are thus expressed as bid/ask.
- However, in the London foreign exchange market, the rates are quoted as ask/ bid.
- **The bid rate** is the rate at which the market maker giving the quotation is ready to buy one unit of the base currency by paying the quoted currency, while **the ask rate** is the rate at which the market maker is ready to sell one unit of the buy currency for the quoted currency.
- In the USD/ INR example discussed here, the market maker is ready to buy one U.S. dollar by paying INR 39.5470 and to sell one U.S. dollar, the market maker wants to be paid INR
- 39.548.
- The quotations are conventionally shortened as, for example, USD/INR: 39.5470/80 or 70/80.
- The difference between the bid rate and ask rate is the bid-ask spread. The bid-ask spread is obtained in point or pips.
- Direct quotations can be converted into indirect quotes and vice versa. For example, the USD is quoted at INR 39.5470-39.6570.
- The reciprocal of the bid of 39.570 becomes the Ask of USD 0.0253, and reciprocal of the Ask of INR 39.6570 becomes the bid of 0.0252, resulting in an indirect quotation of USD 0.0252-0.0253.

Thus, when direct quotations are converted into indirect quotations, the bid and ask quotes are reversed.

Banks and dealers always follow the old adage: "Buy low, sell high." **The ask rate is always more than the bid rate** because banks and dealers want to earn a profit in currency dealing.

- The spread is generally based on the currency's volatility as well as on the breadth and depth of the market for a given currency.
- Currencies with volatile foreign exchange rates may have higher spreads.



- Similarly, spreads tend to widen for currencies that are not widely traded.
- Spreads include commissions, which, in turn, depend on the size of the transactions.
- Therefore, the larger the transaction, the lower is the spread.
- Bid-ask spreads are more pronounced in the retail segment than in the interbank market in the retail segment of the foreign exchange market, banks sell foreign currency at a rate higher than the interbank ask rate, and buy foreign currency from customers at a rate lower than the interbank bid rate.
- The Bid-Ask spread is large in the retail segment because of higher average costs of retail transactions. For the most actively traded currency pairs, the spread is generally 3 pips.
- But sometimes, the spread can be at 1 pip or 2 pips because of competition.
- The bid-ask rates are reviewed and revised from time to time, keeping in view the market factors.

## **7.4 Pip and lot**

- A **pip** is the smallest price increment a currency can make against another currency in foreign exchange trading, one pip has a value of 0.0001 if the currencies are quoted to four decimal places.
- Its value is 0.01 if the currencies are quoted to two decimal places.
- For example, in the case of the currency pair EUR/USD, 1 pip equals 0.0001, and in the case of USD/JPY, 1 pip equals 0.01.
- An exchange rate quote of 1.2215/1.2220 (EUR/USD) has a spread of 5 pips.
- A pip may seem small, but a movement of 1 pip in either direction can result in substantial gains or losses in the interbank market.
- The value of the pip varies from currency pair to currency pair.
- For example, the pip value for EUR/USD is fixed at USD 10 for standard lots, USD 1 for mini lots and USD 0.10 for micro lots.



- **A lot** is the standard unit size of a foreign exchange transaction.
- Typically, one standard lot is equal to 100000 units of the base currency; 10000 units if it is a mini lot; and 1000units if it is a micro lot.

## **8. Settlement**

The Society for Worldwide Interbank Financial Telecommunication (SWIFT) and the Clearing House Interbank Payment System (CHIPS) are the dominant networks used for international transactions and settlements.

### **8.1 SWIFT**

- SWIFT is international financial messaging network.
- Financial messages may include letter of credit, payments, and securities transactions.
- SWIFT was founded in Brussels in 1973 by a group of European as a non-co-operative organization for processing trades and transferring international messages.
- The founders of SWIFT wanted to have a more efficient method than telex or mail to send payment instructions to correspondent banks.
- It provides the proprietary communication platform, products, and services allow its customers to connect and exchange financial information securely and reliably.
- It also acts as the catalyst that brings financial agencies together to work collaboratively and finds solution to issues of mutual interest. SWIFT enables its customers to automate and standardize financial transactions thereby eliminating operational inefficiencies.
- This reduces telecommunication costs as well as operational risk.
- The mechanism also ensures full back-up and recovery capabilities.
- SWIFT facilitates payments between members through domestic funds clearing systems like the Fedwire and the Clearing House Interbank Payments System (CHIPS) in the United States.



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- The SWIFT mechanism also ensures full back up and recovery capabilities. SWIFT facilitates payment between members through domestic clearing systems like the Fedwire and the clearing House Interbank Payments System (CHIPS) in the United States.
- SWIFT services are classified into four key areas: securities, treasury and derivatives, trade services, and payments and cash management.
- SWIFT has different message codes for different services.
- For example, a funds transfer message is coded as MT 103. This is a customer payment message and relates to the transfer of funds in payment for goods received.
- Similarly, MT 799 is a free-format text message sent between banks and is treated much like a secure form of e-mail.
- SWIFT enables its customers to have direct access to confirmations of foreign exchange and money market securities trade and derivative securities transactions.
- SWIFTNET Mail provides a secure and reliable messaging for transferring sensitive business documents, such as invoices, contracts and signatures.
- SWIFT'S customers can e-mail their messages through the highly secure and reliable SWIFT Net Mail instead of the open Internet.
- As of September 2008, SWIFT had in its network 8,66 financial agencies spread over 209 countries.





## **8.2 CHIPS**

- CHIPS, operated by the Clearing House Payments Company LLC and located in New York City is an international wire transfer system for high value payments.
- It is owned by a group of financial institutions.
- Any banking organization with a regulated U.S. presence can have a share in the ownership of CHIPS and participate in the network.
- As a real-time clearing and settlement system, it continuously matches, nets and settles payment orders. It processes more than USD 2 trillion fund transfer transaction each day and handles over 95% of all international payments.
- It settles transactions through adjustments in special account balances at the Federal Reserve Bank of New York City.
- CHIPS has 47 participants, including American Express Bank Lid, ABN AMRO Bank, Bank of America, Banco Bilbao Vizcaya, Banco do Brasil, Bank of China, State Bank of India, Standard Chartered Bank, and HSBC Bank.
- It facilitates not only trade-related payments but also foreign exchange trade.

## **Triangular Arbitrage in Forex Market**

### **What is Arbitrage?**

- In the world of finance, arbitrage is the practice of taking advantage of a state of imbalance between two or more markets.
- A person who engages in arbitrage is called an arbitrageur.
- The arbitrageur exploits the imbalance that is present in the market by making a couple of matching deals in different markets, with the profit being the difference between the market prices.



### Example of an Arbitrage

Suppose that an iPhone is selling for \$800 in the US and for £500 in the UK. For simplicity's sake, let us assume that the current exchange rate is  $\text{£}1 = \$2$ . A simple conversion will tell us that an iPhone is worth more in the UK, since  $\text{£}500 = \$1,000$ , which is more than \$800.

With the presence of such mispricing, an investor can seek to take advantage of such a situation by adopting the following strategy:

- 1) Buy an iPhone in the US for \$800.
- 2) Sell it in the UK for £500.
- 3) Convert £500 into \$1,000.

This simple strategy will help yield an arbitrage profit of  $\$1,000 - \$800 = \$200$  per iPhone. Therefore, if one were to follow this strategy for 500 iPhones, the profit would be a whopping  $500 \times \$200 = \$100,000$ .

**What is Triangular Arbitrage in FX?** The process of trading out of the US dollar into a second currency, then trading for a third currency, which is in turn traded for US dollar. The purpose is to earn profit via from second to third currency when the direct exchange rate between the two is not in alignment with the cross rate.

A typical triangular arbitrage strategy involves three trades:

- 1) Exchanging the initial currency for a second
- 2) Trading second currency for a third
- 3) and the third currency for the initial.



[During the second trade, the arbitrageur locks in a zero-risk profit from the discrepancy that exists when the market cross exchange rate is not aligned with the implicit cross exchange rate.]

**Example - Arbitrage Currency Trading**

1) Following are the spot exchange rates quoted in 3 different forex markets:

USD= INR 48.30 (in Mumbai)

GBP= INR 77.52 (in London)

GBP= USD 1.6231 (in New York)

The arbitrageur has USD 1,00,00,000. Assuming that there are no transaction costs, explain whether there is any arbitrage gain possible from the quoted spot exchange rates.

2) Following are the spot exchange rates quoted in 3 different forex markets:

USD= JPY 82

GBP= USD 1.60

GBP= JPY 128

The arbitrageur has USD 1,00,00,000. Can you make triangular arbitrage profit?

3) Following are the spot exchange rates quoted in 3 different forex markets:

USD= JPY 118

GBP= USD 1.81

GBP= JPY 204

The arbitrageur has USD 100. Can you make triangular arbitrage profit?

4) Following are the spot exchange rates quoted in 3 different forex markets:



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EUR= USD 0.8833

USD= GBP 1.4397

EUR= GBP 1.2712

The arbitrageur has USD 5,00,000. Can you make triangular arbitrage profit?



**One Word Substitute**

Sr.No	Line.No	Question	Answer
1	1-2	_____market involves participants buying and selling currencies all over the world.	Forex
2	3-4	FOREX market is a global over-the-counter market.	True
3	5	Forex market is <b>24x7 Market</b>	True
4	6-7	_____has become the largest foreign exchange trading center, mainly because of the unique advantage of its business hours lapping with those of many other foreign exchange trading centers such as New York, Tokyo and Singapore.	London
5	8-9	Difference between bid and ask price is known as?	Spread
6	11-12	_____price is always listed first.	Bid
7	13-14	The_____price is the rate at which market is ready to sell.	Ask
8	15-16	The_____market involves immediate purchase or sale of foreign exchange	Spot
9	17-18	The number of units of home currency that can be exchanged for one unit of foreign currency is known as?	Direct Quotation
10	20-21	The number of units of foreign currency that can be exchanged for one unit of home currency is known as?	Indirect Quotation
11	22	Currency pairs are separated with a?	Hyphen/Solidus
12	24-25	The first currency in the pair is called?	Base currency
13	27-28	The second currency in the pair is called?	Quoted currency
14	30-31	The_____rate is the rate of exchange between two non-US currencies.	cross
15	33-34	When cross rates differ from one financial center to another, profit opportunities exist is called?	Triangular arbitrage



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16	35-36	Full form of SWIFT	Society for Worldwide Interbank Financial Telecommunication
17	38-39	Full form of CHIPS	Clearing House Interbank Payment System
18	41-43	Corporation and commercial banks are participant of FX.	True
19	44-45	Real Time Market & Heavy Trading During Overlapping Hours is a feature of FX.	True
20	47-48	Low liquidity is a feature of FX.	False



## ☼ International Parity Relationship ☼

1. Give a full definition of *arbitrage*.

Arbitrage can be defined as the act of simultaneously buying and selling the same or equivalent assets or commodities for the purpose of making certain, guaranteed profits.

2. Discuss the implications of the interest rate parity for the exchange rate determination.

Assuming that the forward exchange rate is roughly an unbiased predictor of the future spot rate, IRP can be written as:

$$S = [(1 + I_{\text{£}})/(1 + I_{\text{\$}})]E[S_{t+1}|I_t].$$

The exchange rate is thus determined by the relative interest rates, and the expected future spot rate, conditional on all the available information,  $I_t$ , as of the present time. One thus can say that expectation is self-fulfilling. Since the information set will be continuously updated as news hit the market, the exchange rate will exhibit a highly dynamic, random behavior.

3. Explain the conditions under which the forward exchange rate will be an unbiased predictor of the future spot exchange rate.

The forward exchange rate will be an unbiased predictor of the future spot rate if (i) the risk premium is insignificant and (ii) foreign exchange markets are informationally efficient.

4. Explain the purchasing power parity, both the absolute and relative versions. What causes the deviations from the purchasing power parity?

The absolute version of purchasing power parity (PPP):



$$S = P\$/P\pounds.$$

The relative version is:

$$e = \pi\$ - \pi\pounds.$$

PPP can be violated if there are barriers to international trade or if people in different countries have different consumption taste. PPP is the law of one price applied to a standard consumption basket.

5. Discuss the implications of the deviations from the purchasing power parity for countries' competitive positions in the world market.

If exchange rate changes satisfy PPP, competitive positions of countries will remain unaffected following exchange rate changes. Otherwise, exchange rate changes will affect relative competitiveness of countries. If a country's currency appreciates (depreciates) by more than is warranted by PPP, that will hurt (strengthen) the country's competitive position in the world market.

6. Explain and derive the international Fisher effect.

The international Fisher effect can be obtained by combining the Fisher effect and the relative version of PPP in its expectational form. Specifically, the Fisher effect holds that

$$E(\pi\$) = I\$ - \pi\$,$$

$$E(\pi\pounds) = I\pounds - \pi\pounds.$$

Assuming that the real interest rate is the same between the two countries, i.e.,  $\pi\$ = \pi\pounds$ , and substituting the above results into the PPP, i.e.,  $E(e) = E(\pi\$) - E(\pi\pounds)$ , we obtain the international Fisher effect:  $E(e) = I\$ - I\pounds$ .





7. Researchers found that it is very difficult to forecast the future exchange rates more accurately than the forward exchange rate or the current spot exchange rate. How would you interpret this finding?

This implies that exchange markets are informationally efficient. Thus, unless one has private information that is not yet reflected in the current market rates, it would be difficult to beat the market.

8. Explain the random walk model for exchange rate forecasting. Can it be consistent with the technical analysis?

The random walk model predicts that the current exchange rate will be the best predictor of the future exchange rate. An implication of the model is that past history of the exchange rate is of no value in predicting future exchange rate. The model thus is inconsistent with the technical analysis which tries to utilize past history in predicting the future exchange rate.

\*9. Derive and explain the monetary approach to exchange rate determination.

The monetary approach is associated with the Chicago School of Economics. It is based on two tenets: purchasing power parity and the quantity theory of money. Combining these two theories allows for stating, say, the \$/£ spot exchange rate as:

$$S(\$/\text{£}) = (M\$/M\text{£})(V\$/V\text{£})(y\text{£}/y\$),$$

where  $M$  denotes the money supply,  $V$  the velocity of money, and  $y$  the national aggregate output.

The theory holds that what matters in exchange rate determination are:

1. The relative money supply,
2. The relative velocities of monies, and
3. The relative national outputs.



10. Explain the following three concepts of purchasing power parity (PPP):

- a. The law of one price.
- b. Absolute PPP.
- c. Relative PPP.

Answer:

a. The law of one price (LOP) refers to the international arbitrage condition for the standard consumption basket. LOP requires that the consumption basket should be selling for the same price in a given currency across countries.

b. Absolute PPP holds that the price level in a country is equal to the price level in another country times the exchange rate between the two countries.

c. Relative PPP holds that the rate of exchange rate change between a pair of countries is about equal to the difference in inflation rates of the two countries.

### PROBLEMS

1. Suppose that the treasurer of IBM has an extra cash reserve of \$100,000,000 to invest for six months. The six-month interest rate is 8% per annum in the U.S. and 7% per annum in Germany. Currently, the spot exchange rate is €1.01 per dollar and the six-month forward exchange rate is €0.99 per dollar. The treasurer of IBM does not wish to bear any exchange risk. Where should he/she invest to maximize the return?

Solution: The market conditions are summarized as follows:

$i_{\$} = 4\%$ ;  $i_{\text{€}} = 3.5\%$ ;  $S = \text{€}1.01/\text{\$}$ ;  $F = \text{€}0.99/\text{\$}$ .

If \$100,000,000 is invested in the U.S., the maturity value in six months will be

$\text{\$}104,000,000 = \text{\$}100,000,000 (1 + .04)$ .



Alternatively, \$100,000,000 can be converted into euros and invested at the German interest rate, with the euro maturity value sold forward. In this case the dollar maturity value will be

$$\$105,590,909 = (\$100,000,000 \times 1.01)(1 + .035)(1/0.99)$$

Clearly, it is better to invest \$100,000,000 in Germany with exchange risk hedging.

2. While you were visiting London, you purchased a Jaguar for £35,000, payable in three months. You have enough cash at your bank in New York City, which pays 0.35% interest per month, compounding monthly, to pay for the car. Currently, the spot exchange rate is \$1.45/£ and the three-month forward exchange rate is \$1.40/£. In London, the money market interest rate is 2.0% for a three-month investment. There are two alternative ways of paying for your Jaguar.

(a) Keep the funds at your bank in the U.S. and buy £35,000 forward.

(b) Buy a certain pound amount spot today and invest the amount in the U.K. for three months so that the maturity value becomes equal to £35,000.

Evaluate each payment method. Which method would you prefer? Why?

Solution: The problem situation is summarized as follows:

A/P = £35,000 payable in three months

$i_{NY} = 0.35\%/month$ , compounding monthly

$i_{LD} = 2.0\%$  for three months

$S = \$1.45/£$ ;  $F = \$1.40/£$ .

Option a:

When you buy £35,000 forward, you will need \$49,000 in three months to fulfill the forward contract. The present value of \$49,000 is computed as follows:

$$\$49,000/(1.0035)_3 = \$48,489.$$

Thus, the cost of Jaguar as of today is \$48,489.



Option b:

The present value of £35,000 is  $£34,314 = £35,000/(1.02)$ . To buy £34,314 today, it will cost  $\$49,755 = 34,314 \times 1.45$ . Thus the cost of Jaguar as of today is \$49,755.

You should definitely choose to use “option a”, and save \$1,266, which is the difference between \$49,755 and \$48,489.

3. Currently, the spot exchange rate is \$1.50/£ and the three-month forward exchange rate is \$1.52/£. The three-month interest rate is 8.0% per annum in the U.S. and 5.8% per annum in the U.K. Assume that you can borrow as much as \$1,500,000 or £1,000,000.

- Determine whether the interest rate parity is currently holding.
- If the IRP is not holding, how would you carry out covered interest arbitrage? Show all the steps and determine the arbitrage profit.
- Explain how the IRP will be restored as a result of covered arbitrage activities.

Solution: Let's summarize the given data first:

$$S = \$1.5/\text{£}; F = \$1.52/\text{£}; I_{\$} = 2.0\%; I_{\text{£}} = 1.45\%$$

$$\text{Credit} = \$1,500,000 \text{ or } \text{£}1,000,000.$$

$$\text{a. } (1+I_{\$}) = 1.02$$

$$(1+I_{\text{£}})(F/S) = (1.0145)(1.52/1.50) = 1.0280$$

Thus, IRP is not holding exactly.

b. (1) Borrow \$1,500,000; repayment will be \$1,530,000.

(2) Buy £1,000,000 spot using \$1,500,000.

(3) Invest £1,000,000 at the pound interest rate of 1.45%; maturity value will be £1,014,500.

(4) Sell £1,014,500 forward for \$1,542,040

Arbitrage profit will be \$12,040



c. Following the arbitrage transactions described above,

The dollar interest rate will rise;

The pound interest rate will fall;

The spot exchange rate will rise;

The forward exchange rate will fall.

These adjustments will continue until IRP holds.

4. Suppose that the current spot exchange rate is €1.06/\$ and the three-month forward exchange rate is €1.02/\$. The three-month interest rate is 5.6 percent per annum in the United States and 5.40 percent per annum in France. Assume that you can borrow up to \$1,000,000 or €1,060,000.

a. Show how to realize a certain profit via covered interest arbitrage, assuming that you want to realize profit in terms of U.S. dollars. Also determine the size of your arbitrage profit.

b. Assume that you want to realize profit in terms of euros. Show the covered arbitrage process and determine the arbitrage profit in euros.

a.  $(1 + i_{\$}) = 1.014 < (F/S) (1 + i_{€}) = 1.053$ . Thus, one has to borrow dollars and invest in euros to make arbitrage profit.

1. Borrow \$1,000,000 and repay \$1,014,000 in three months.

2. Sell \$1,000,000 spot for €1,060,000.

3. Invest €1,060,000 at the euro interest rate of 1.35 % for three months and receive

€1,074,310 at maturity.

4. Sell €1,074,310 forward for \$1,053,245.



Arbitrage profit = \$1,053,245 - \$1,014,000 = \$39,245.

b. Follow the first three steps above. But the last step, involving exchange risk hedging, will be different.

4. Buy \$1,014,000 forward for €1,034,280.

Arbitrage profit = €1,074,310 - €1,034,280 = €40,030.

5. In the issue of October 23, 1999, the Economist reports that the interest rate per annum is 5.93% in the United States and 70.0% in Turkey. Why do you think the interest rate is so high in Turkey? Based on the reported interest rates, how would you predict the change of the exchange rate between the U.S. dollar and the Turkish lira?

Solution: A high Turkish interest rate must reflect a high expected inflation in Turkey. According to international Fisher effect (IFE), we have

$$\begin{aligned} E(e) &= i_{\$} - i_{\text{Lira}} \\ &= 5.93\% - 70.0\% = -64.07\% \end{aligned}$$

The Turkish lira thus is expected to depreciate against the U.S. dollar by about 64%.

6. As of November 1, 1999, the exchange rate between the Brazilian real and U.S. dollar is R\$1.95/\$. The consensus forecast for the U.S. and Brazil inflation rates for the next 1-year period is 2.6% and 20.0%, respectively. How would you forecast the exchange rate to be at around November 1, 2000?

Solution: Since the inflation rate is quite high in Brazil, we may use the purchasing power parity to forecast the exchange rate.

$$\begin{aligned} E(e) &= E(\text{R}\$) - E(\text{R}\$) \\ &= 2.6\% - 20.0\% \\ &= -17.4\% \end{aligned}$$



$$\begin{aligned} E(S_T) &= S_0(1 + E(e)) \\ &= (\text{R}\$1.95/\$) (1 + 0.174) \\ &= \text{R}\$2.29/\$ \end{aligned}$$

7. Due to the integrated nature of their capital markets, investors in both the U.S. and U.K. require the same real interest rate, 2.5%, on their lending. There is a consensus in capital markets that the annual inflation rate is likely to be 3.5% in the U.S. and 1.5% in the U.K. for the next three years. The spot exchange rate is currently \$1.50/£.

- Compute the nominal interest rate per annum in both the U.S. and U.K., assuming that the Fisher effect holds.
- What is your expected future spot dollar-pound exchange rate in three years from now?
- Can you infer the forward dollar-pound exchange rate for one-year maturity?

Solution.

$$\text{a. Nominal rate in US} = (1+r) (1+E(\pi\$)) - 1 = (1.025)(1.035) - 1 = 0.0609 \text{ or } 6.09\%.$$

$$\text{Nominal rate in UK} = (1+r) (1+E(\pi\£)) - 1 = (1.025)(1.015) - 1 = 0.0404 \text{ or } 4.04\%.$$

$$\text{b. } E(S_T) = [(1.0609)^3 / (1.0404)^3] (1.50) = \$1.5904/\£.$$

$$\text{c. } F = [1.0609 / 1.0404] (1.50) = \$1.5296/\£.$$



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No	Line.No	Question	Answer
1	1-2	IRP is an_____condition.	Arbitrage
2	3	PPP is based on law of one price.	True
3	4-5	PPP states that same goods in different country should have identical price.	True
4	6-7	Relative PPP states that the rate of change in the exchange rate is equal to the differences in the rates of inflation.	True
5	9-10	If $q < 1$ competitiveness of domestic country improves with currency_____	depreciates
6	12-13	If $q > 1$ competitiveness of domestic country deteriorates with currency _____	depreciates
7	14	Does PPP exist in 21 <sup>st</sup> century.	False
8	16-17	An increase (decrease) in the expected rate of inflation will cause a proportionate increase (decrease) in the interest rate in the country is called?	Fishers Effect
9	19-20	_____are <i>efficient</i> if current asset prices reflect all available and relevant information, such as money supplies, inflation rates, trade balances, and output growth.	Financial market
10	21-22	_____looks for patterns in the past behavior of exchange rates.	Technical Analysis
11	23-24	_____ involves econometrics to develop models that use a variety of explanatory variables.	Fundamental analysis
12	25-26	Fundamental analysis is a forecasting technique that utilizes elementary data related to a country, such as GDP, inflation rates, balance of trade etc.	True





## FOREIGN EXCHANGE ARITHMETIC

Interbank deals refer to purchase and sale of foreign exchange between the banks. In other words it refers to the foreign exchange dealings of a bank in the interbank market. The main features of interbank deals are given in this section.

### **Cover Deals**

- Purchase and sale of foreign currency in the market undertaken to acquire or dispose of foreign exchange required or acquired as a consequence of the dealings with its customers is known as the 'cover deal'.
- The purpose of cover deal is to insure the bank against my fluctuation in the exchange rates.
- The bank would like to keep its stock of foreign exchange near zero.
- The main reason for this is that the bank wants to reduce the exchange risk it faces to the minimum. Otherwise, any adverse change in the rates would affect its profit.

### **Trading**

- It refers to purchase and sale of foreign exchange in the market other than to cover bank's transactions with the customers.
- The purpose may be to gain on the expected changes in exchange rates.

### **Funding of Nostro Account**

- Funding of nostro account of the bank is done by realization of foreign exchange in the relevant currency purchased by the bank.



- If sales exceed purchase to avoid overdraft in the nostro account, the bank would purchase the requisite foreign exchange in the interbank market and arrange for its credit to the nostro account.

## **Swap Deals**

A 'swap deal' is a transaction in which the bank buys and sells the specified foreign currency simultaneously for different maturities. Thus a swap deal may involve:

1. There should be simultaneous buying and selling of the same foreign currency of same value for different maturities; and
2. The deal should have been concluded with the distinct understanding between the banks that it is a swap deal.

A swap deal is done in the market at a difference from the ordinary deals. In the ordinary deals, the following factors enter into the rates;

- The difference between the buying and selling rates; and
- The forward margin. i.e., the premium or discount.

## **Arbitrage Operations**

- If perfect conditions prevail in the market, the exchange rate for a currency should be the same in all centres.
- For example, if US dollar is quoted at Rs.49,4000 in Mumbai, it should be quoted at the same rate of Rs. 49,4000 at New York.
- But under imperfect conditions prevailing, the rates in different centres may be different.
- Thus at New York Indian rupees may be quoted at Rs.49,4800 per dollar.



- In such a case, it would be advantageous for a bank in Mumbai to buy US dollars locally and arranged to sell them in New York.

## **EXECUTION OF FORWARD CONTRACT**

- Foreign exchange may be delivered on the due date as per the forward contract.
- Or, the delivery may take place earlier or later than the due date.
- Alternatively, the customer may request cancellation of the contract.
- This request for cancellation may be made on the due date, before the due date or later than the due date.
- Yet another alternative is that the customer may request postponement of the date of delivery under the forward contract.
- Rule 8 of FEDAI governing this subject stipulates that the request for delivery, cancellation or extension of the forward contract should be made by the customer on or before its maturity date.
- A forward contract which remains unutilized after the due date becomes an overdue contract.
- This section deals with delivery on or before the due date.

## **Delivery on Due Date**

- This is the situation envisaged when the forward contract was entered into.
- When the foreign exchange is delivered on the due date, the rate applied for the transaction would be the rate originally agreed, irrespective of the spot rate prevailing.
- The following example and solution may explain the practice of delivery on due date contract.



**Example:** The bank has entered into a contract of forward purchase of Swiss Francs 10,000 with a customer at the rate of Rs.32,5000. On the due date, the spot rate of Rs.32,7600/8200. State the amount that will be credited to the account of the customer on purchase of the bill.

**Solution:** The bank would apply the rate of Rs.32,5000 as originally agreed for purchase of the bill. The amount credited to the account would be Rs.3,25,000.

**Example:** On 1st March, the bank enters into a forward contract for 2 months for selling USD at Rs.46,6600. On 1st May, the contract is put through in retirement of a bill for USD 1,000 drawn on the customer. On this date, the spot rates are Rs.49,3100/5600. Calculate the amount that would be debited to the account of the customer.

**Solution:** The bank would apply the rate originally agreed upon, i.e. Rs.46,6600 and debit the account of the customer with Rs.48,660.

### **Early Delivery**

- When a customer requests early delivery of a forward contract, i.e. delivery before its due date, the bank may accede to the request provided the customer agrees to bear the loss, if any, that may accrue to the bank.
- When the bank entered into a forward sale contract with a customer, it would have covered its position by entering into a forward purchase contract with the market for the same amount and for a matching period.



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- For example, suppose the bank has agreed on 1st April to sell USD 10,000 to the customer delivery June at the rate of Rs.49,1400.
- Theoretically, on the same day, i.e., on 1st April, a forward purchase would be made by the bank with the market for USD 10,000 due June.
- The idea is that during June when the contract matures, the bank can realize the purchase contract and sell it to the customer.
- Suppose further that the customer requests that the contract be executed on 1st May itself, the Bank would execute the contract at the original rate agreed upon. Viz., Rs.49,1400 and recover separately any loss that it may suffer.

.On 1st May, the bank makes a spot purchase and forward sale of the same currency for the same value. The difference between the rate at which the currency is purchased and sold in a swap deal is the swap difference. The swap difference may be a 'swap loss' or 'swap gain' depending upon the rates prevailing in the market. If the bank buys high and sells low, the difference is swap loss recoverable from the customer. If the bank buys low and sells high, the difference is the swap gain payable to the customer.

On 1st May, the bank receives rupees from the customer on sale of foreign exchange to him. It pays rupees to the market for the spot purchase made. If the amount paid exceeds the amount received, the difference represents outlay of funds. Interest on outlay of funds is recoverable from the customer from the date of early delivery to the original due date at a rate not lower than the prime lending rate of the bank concerned.

If the amount received exceeds the amount paid, the difference represents inflow of funds. At its discretion, the bank may pay interest to the customer on inflow of funds at the appropriate rate applicable for term deposits for the period for which the funds remained with it.



Charges for early delivery will comprise of:

- Swap difference:
- Interest on outlay of funds: and

In addition, at its discretion, the bank may levy some processing charges.

## **CANCELLATION AND EXTENSION OF FORWARD CONTRACT**

- The customer may approach the bank for cancellation when the underlying transactions becomes infructuous, or for any other reason he wishes not to execute the forward contract.
- If the underlying transaction is likely to take place on the day subsequent to the maturity of the forward contract already booked, he may seek extension in the due date of the contract.
- Such requests for cancellation or extension can be made by the customer on or before the maturity of the forward contract.

### **Cancellation on Due Date**

- When the forward purchase contract is cancelled on the due date, it is taken that the bank purchases at the rate originally agreed and sells the same back to the customer at the ready TT rate.
- The difference between these two rates is recovered from/paid to the customer.
- If the purchase rate under the original forward contract is higher than the ready TT selling rate, the difference is payable to the customer.
- If it is lower, the difference is recoverable from the customer.



- The amounts involved in purchase and sale of foreign currency are not passed through the customer's account, only the difference is recovered/paid by way of debit/credit to the customer's account.
- In the same way, when a forward sale contract is cancelled it is treated as if the bank sells at the rate originally agreed and buys back at the ready T.T. buying rate.
- The difference between these two rates is recovered from/paid to the customer.

### **Early Cancellation**

- If a forward purchase contract is required to be cancelled by the customer earlier than the due date it would be cancelled at the forward selling rate prevailing on the date of cancellation, the due date of this sale contract to synchronize with the due date of the original forward purchase contract.
- For example, assume that on 12th September a three months forward purchase contract is entered into with a customer for USD 10,000.
- The due date of the contract is 12th December.
- On 12th November, the customer comes to the bank and requires cancellation of the forward contract.
- The contract will be cancelled by the bank selling back to the customer USD 10,000 at its Forward TT selling rate for one month.
- The difference between the rate under the original forward purchase contract and forward TT selling rate applied on the date of cancellation is payable/receivable by the customer.
- If a forward sale contract is cancelled earlier than the due date, the cancellation would be done at the forward purchase rate prevailing on that date with due date to fall on the due date of the original forward sale contract.



## **Extension on Due Date**

- An exporter finds that he is not able to export on the due date but expects to do so in about two months.
- An importer is unable to pay on the due date but is confident of making payment a month later.
- In both these cases, they may approach their bank with which they have entered into forward contracts to postpone the due date of the contract.
- Such postponement of the date of delivery under a forward contract is known as the extension of forward contract.
- When a forward contract is sought to be extended.
- It shall be cancelled and rebooked for the new delivery period at the prevailing exchange rates. FEDAI has clarified that it would not be necessary to load exchange margins when both the cancellation and re-booking of forward contracts are undertaken simultaneously.
- However, it is observed that banks do include margin for cancellation and rebooking as in any other case.

## **Early Extension**

When the request for extension is received earlier to the due date, it would be cancelled at the relevant forward rate (as in the case of cancellation) and rebooked at the current rate.

## **Overdue Forward Contracts**

- The customer has the right to utilize or cancel or extend the forward contract on or before its due date.





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- No such right exists after the expiry of the contract.
- FEDAI Rule 8 provides that a forward contract which remains overdue without any instructions from the customer concerned on or before the due date, shall on the 15th day from the date of maturity be automatically cancelled by the bank.
- The customer remains liable for the exchange difference arising therefrom, but if it results in profit it need not be passed on to the customer.
- In case of delivery subsequent to automatic cancellation, the appropriate current rate prevailing on such delivery shall be applied.



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SR.NO	LINE NO.	QUESTION	ANSWER
1	1-2	Purchase and sale of foreign currency in the market undertaken to acquire or dispose of foreign exchange required or acquired as a consequence of the dealings with its customers is known as the?	Purchase deal
2	3-4	_____deals refer to purchase and sale of foreign exchange between the banks.	Interbank
3	5	_____is a transaction in which the bank buys and sells the specified foreign currency simultaneously for different maturities.	Swap deal
4	6-7	The foreign exchange dealing of a bank, with its customer is known as merchant business, and the exchange rate at which business takes place is called?	Merchant rates
5	9-11	The inter-bank market rates become_____rates for merchant rates.	reference
6	12-14	Banks charges sufficient margin to cover the administrative cost, exchange rate fluctuation and profit on transaction known as?	Exchange margin
7	15-17	_____means bank purchases foreign currency from the customer and pays him in Indian Rupees (Exporter) immediately.	TT buying rate
8	18-20	_____means bank sells foreign currency to the customer and receives Indian rupees from Indian Customer (Importer) immediately.	TT selling rate
9	21	Buy low and sell high is a feature of merchant rate.	True
10	23-25	When an importer requests the bank to make a payment to a foreign supplier against a bill drawn on the importer, the bank has to handle the documents related to the transaction is called?	Bill selling rate
11	27-29	Forward margin is normally available for periods of a calendar month and not for 25 days, etc.	True
12	30-32	Premium is to be added to the spot rate and discount should be deducted from it.	True



## ☼ MERCHANT RATE ☼

### **Introduction to Merchant Rates**

- ☉ The foreign exchange dealing of a bank, with its customer is known as merchant business, and the exchange rate at which business takes place is called the merchant rate.
- ☉ It is not free service but a business.
- ☉ The inter-bank market rates become reference (basis) rates for merchant rates.

### **Exchange Margin**

- ☉ Banks charges sufficient margin to cover the administrative cost, exchange rate fluctuation and profit on transaction known as exchange margin.
- ☉ It is done by exchange margin to the base rate.

### **Types of Rates**

#### 1) TT Buying Rate:

- ☉ It means bank purchases foreign currency from the customer and pays him in Indian Rupees (Exporter) immediately.
- ☉ This is the rate applied when the transaction does not involve any delay in realization of the foreign exchange by the bank. In other words, the *nostro*(account of SBI(Indian bank) with Swiss bank(Switzerland bank) account of bank would already have been credited.
- ☉ Payment of demand draft, mail transfers, telegraphic transfers etc drawn on the bank where bank's Nostro account is already credited.



- E.g. A Ltd receives a DD of \$5,000 issued in its favour from Washington. They approach the bank for getting this amount. The bank pays them the rupee value of \$5000. This is referred to as DD purchase.
- Foreign bills collected. When a foreign bill is taken for collection, the bank pays the exporter only when the importer pays for the bill and the bank's Nostro account abroad is credited.

### **Types of bills**

- A direction from the exporter to the importer to pay value of the goods exported to the bank through whom he sends the documents.
- There are two types of bills:
  - Sight Bill (Transit Period 25 days)
  - Usance Bill (Transit Period + Credit Period)

#### 2) Bill Buying Rate (Example):

- When a bill is purchased the rupee amount of the bill is paid to the exporter immediately.
- If a sight bill on London is purchased, the realization will be after a period of about 25 days (transit period). The bank would be able to dispose of the foreign exchange after this period.
- Likewise, if the bill purchased after 30 days usance bill, then the bill will realize after 55 days (25+30). Therefore the bank would be able to dispose of foreign exchange only after 55 days, the rate to the customer would be based on the interbank rate for 55 days forward.
- Two points need noting in loading the bills buying rate with forward margin.
- First, the forward margin is normally available for periods of a calendar month and not for 25 days, etc.



- Secondly, forward margin may be at premium or discount. Premium is to be added to the spot rate and discount should be deducted from it.

### 3) TT Selling Rate:

- It means bank sells foreign currency to the customer and receives Indian rupees from Indian Customer (Importer) immediately.
- This rate is applied for all transactions, which do not involve handling of documents by the bank. The TT selling rate is calculated by adding exchange margin to the interbank selling rate.
- Issue demand drafts, mails transfers, telegraphic transfers etc. other than for retirement of an import bill; and
- E.g. a customer requests the bank to immediately transfer \$1,00,000 to his business associate in New York. The transaction is referred to as TT issuance/TT sale/TT payment.
- In selling of foreign currency (both spot and bill), bank acquires Indian rupees and has to sell foreign currency.
- In case of bill, sale is effected by issuing a payment instrument on the correspondence bank with which it maintains Nostro account.
- Immediately bank has to buy foreign currency from interbank market and deposit to its Nostro Account so that it would be debited.
- So all sale transactions are ready/spot basis.

### 4) Bill Selling Rate:

- When an importer requests the bank to make a payment to a foreign supplier against a bill drawn on the importer, the bank has to handle the documents related to the transaction. For this, the bank loads another margin over TT selling rate to arrive at the Bill selling rate.



## ✿ International Banking & Money Market ✿

### 1. Concept:

- The prefix 'Euro' tends to create confusion for many as it denoted a currency-used for financial transactions outside the country of origin of that currency,
- Example US dollar were termed as Eurodollars when they formed financial assets and liabilities (denominated in dollars) but traded outside the United States,
- Japanese yen traded out of Japan were termed as Euro yen, German marks traded out of Germany were termed as Euro marks,
- Swiss francs traded out of Switzerland were termed as Euro franc.
- But after launching of the 'Euro' as the official currency of European Monetary Union (or what is also known as Euro land), Eurocurrency (or Euros) denotes the official currency of the European Union or Euro land.
- The currency used for financial transactions outside the country of the origin of that currency is now no more called Eurocurrency.
- It is rather known as Eurodollar, Euro yen, Euro marks, Euro francs etc. depending on which particular currency is used for financial transaction outside the country of the origin of that currency. The transactions in Eurodollar, Euro yen, Euro marks etc. are known as 'Euro Markets'.
- We may thus differentiate among Eurocurrency markets, foreign currency markets and Euro markets. The main differences are that foreign currency markets signify transactions



denominated in currency of the country of domicile whereas in Euro markets transactions are denominated in the currency of the system country other than the country of the domicile.

- For example, when a bank located in the US makes transaction with a foreigner in the US dollar, it is a foreign currency transaction.
- As against this, when the same bank makes transaction with a foreigner in a currency other than the US dollar, it is Euro transaction.

## **2. Factors favoring Growth of the Euro Market (International Money Market):**

1. The foundation of modern Euro currency was laid in 1949. The new Chinese Communist Government apprehended that their dollar holdings would be blocked by the USA. To overcome the threat, it began to disguise its dollar earnings by placing them with a Russia owned bank in Paris. Most of other communist countries also started placing their dollar deposits with Paris and London instead of directly depositing them with New York. **(Communist Countries)**

2. Further, Euro market interest rates are outside the control of any central bank. Therefore the rules applied by central bank in the country of the concerned currency do not apply. One of such rules was **Regulation Q** of the Federal Reserve Act. According to this regulation, banks working in USA were advised not to pay any interest on deposits of less than 30 days' duration. Further, interest rates for longer terms were governed by upper limits (strict ceilings).

Thus the interest rates payable on dollar deposits in the USA was restricted, while no such restriction was there for deposits outside USA. By offering higher rates of interest than those prevailing in the USA, banks operating outside the USA were able to attract substantial dollar deposits from non-US residents. The higher



rate of interest also resulted in transfer of some of dollar balances kept by foreign investors in New York to outside the USA. **(Regulation Q)**

3. Another regulation that encouraged flow of funds from the USA to European centres was **Regulation M** of the Federal Reserve Act. According to this regulation, banks in USA required to maintain certain percentage as reserves against deposits. Except for a brief period, this regulation was not applied to deposits of European branches of US banks. This resulted in lower cost of operation in Europe as compared to that of USA. For example, if the Federal Reserve Bank in US imposed a reserve requirement of 3% on deposits of banks working in USA, then for every \$100 deposited, only \$97 could be lent out. If the interest rates were 10%, a bank in USA would have to charge 10.31% ( $10/97 * 100$ ) to cover the cost of reserves. Therefore a bank taking US dollar deposit in London (Euro market) could undercut its domestic US competitor doing business in New York. **(Regulation M)**

4. Finally, the US dollar deposits in the New York domestic market had lower yields than the Eurodollar deposit interest rate. This gap between the two markets opened up an arbitrage opportunity i.e. to raise US dollar deposits from domestic market and then deposit proceeds in the Euro Market with a view to gain from higher yields. **(Arbitrage Opportunity)**

### **3. Features of Euro Currency Market:**

#### **1. Funds Outside the Control of Central Bank**

- Transactions in each currency take place outside the country of its issue.
- For example, dollars earned by a Japanese firm from exports may be deposited with a bank in London.





- The London bank is free to use the funds for lending to any other bank.
- The bank may use it for lending to a French bank.
- Thus the utility of the currency is entirely outside the control of the Central Bank for the country issuing the currency.
- For this reason, Eurocurrencies are also referred to as offshore currencies.

## **2. Settlement should be made in domestic country**

- Even though the currency is utilized outside the country of its origin, it has to be held only in the country of its issue.
- To continue our example, the Japanese firm deposits its dollar earnings with a bank in London.
- The London bank will keep the funds in a New York Bank in its own name.
- When the London bank lends the amount to the French Bank, it will give suitable instructions to the New York Bank.
- On receipt of instructions, the New York Bank will debit the account of the London bank and credit it to the account of the French Bank.
- Thus ultimately the settlement of all dollar transactions takes place in New York.
- Similarly, settlement of all Euro sterling transactions is made in London.

## **3. Indirect Control**

- Though Eurocurrencies are outside the direct control of the monetary authorities of their respective countries of issue, they are subject to some form of indirect control.
- This is because the settlement of all transactions has to take place only in the country of issue.



- If the country of issue imposes any restrictions, the conversion of balances in the currency held outside the country into another currency would involve clearing in the country of issue at some point of transaction.
- This automatically subjects them to restriction.

#### **4. Syndication of loans**

- The transactions in the market involve huge amounts running into millions of dollars.
- The large-scale financing has led to the development of syndication of loans, where a large number of banks participate in the lending operations.

#### **5. Highly Competitive Market**

- Euro currency market is a highly competitive market with free access for new institutions in the market.
- Consequently, the margin between the interest rates on deposits and advances has narrowed down considerably.

#### **4. Interest Rate in Euro Market – London Interbank Offered Rate (LIBOR):**

The interest rates in Euro Markets are determined by a multitude of factors which affect the demand and supply conditions of the currency concerned.

#### **Factors**

- (i) volume of world trade transacted in the currency,
- (ii) domestic interest rates,



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- (iii) domestic monetary policy and reserve requirements,
- (iv) domestic government regulation
- (v) relative strength of the currency in the foreign exchange market.

- In practice, domestic interest rates act as a floor to Euro currency rates because the funds flow into Euro market seeking higher interest.
- Although the Euro Market operates in a number of centres around the world, interest rates for a particular currency are consistent.
- Any temporary variations at different markets are quickly eliminated by international arbitrage.
- LIBOR or ICE LIBOR (previously BBA LIBOR) is a benchmark rate that some of the world's leading banks charge each other for short-term loans.
- It stands for Intercontinental Exchange London Interbank Offered Rate (ICE LIBOR) and serves as the first step to calculating interest rates on various loans throughout the world.
- It represents ***the rate at which banks in London will lend a currency to other banks for a specific maturity.***
- The LIBOR rate attempts to measure the cost to a bank of raising new funds from the market in order to re-lend.
- Since London is a major Euro market, LIBOR is used as basis of almost all variable (or floating) rates lending in Euro Markets.
- LIBOR varies for different maturities.

LIBOR is administered by the ICE Benchmark Administration (IBA) and is based on five currencies:

- U.S. dollar (USD),
- Euro (EUR),



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- Pound Sterling (GBP),
- Japanese yen (JPY),
- Swiss franc (CHF).

It is produced for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors (Overnight/Spot Next, 1 Week, 1 Month, 2 Months, 3 Months, 6 Months and 12 Months) based on submissions from a reference panel of between 11 and 16 banks for each currency, resulting in the publication of 35 rates every applicable London business day.

When two top rated banks arrange an interbank transaction, the interest rate that is agreed for a loan and deposit will often be somewhere between the LIBOR and the LIBID, and possibly the average of these two rates which is referred to as LIMEAN as a reference rate for their interbank transactions.

The LIBOR convention has spread in various variations. These include:

"Sibor" [Saudi Or Singapore Interbank Offered Rate]

"Nibor" [New York Interbank offered Rate]

"Kibor" [Kuwait Interbank Offered Rate]

"Pibor" [Paris Interbank Offered Rate] "Fibor" [Frankfurt I nterbank Offered Rate] "Dibor" [Dubai Interbank Offered Rate]

"Hkibor" [Hong Kong Inferbank Offered Rate] "Mibor" [Madrid Interbank Offered Rate]

"Mibor" [Mumbai Interbank Offered Rate], and so on;



## Instruments of International Money Market

### 1. EURONOTES:

#### **Concept:**

- Euro-notes are like promissory notes issued by companies for obtaining short-term funds.
- The time period of Euro notes vary from 3 to 9 months but it can be linked up for medium or long term borrowing facility also.
- Banks that acts as a financial intermediary agree to underwrite the paper (instrument).

#### **Features:**

1. Euro notes are denominated in any currency other than the currency of the country where they are issued. The notes are generally denominated in amounts of US \$1,00,000, \$5,00,000 or more. The US dollar is the most common currency of denomination. **(Currency)**
2. They represent low-cost funding route. They can be easily tailored to suit the requirements of different kinds of borrowers. **(Benefits)**
3. When the issuer plans to issue Euro notes, it hires the services of facility agents or the lead manager. On the advice of the lead manager, it issues the notes, gets them underwritten and sells them through the placement agents. After the selling period is over, the underwriter buys the unsold issues. **(Placement in Market – 1)**
4. In course of time, a few variants of Euro note issue system have evolved. The **first** is the **revolving underwriting facility** in which there is a sole placement agent who allocates the notes among investors at a uniform price-set yield. The funding portion is divided into two separate components. The first is a long



term committed standby lending facility provided by banks. The second is a mechanism for the distribution short-term debt instruments (the Euro Notes). The second is the **tender panel system** in which the placement agent forms a panel of banks for placing Euro notes on behalf of the issuer. **(Placement in Market – 2)**

5. The Euro notes carry three main cost components: 1. Underwriting fee; 2. One time management fee for structuring, pricing and documentation and 3. Margin on the notes themselves. The margin is either in the form of spread above/below LIBOR or built into the note price itself. **(Cost)**

6. Documentation facilities are minimum and the documents are standardized. The documents accompanying notes are usually underwriting agreement, paying agency agreement and information memorandum showing, among other things, the financial position of the issuer. **(Documents)**

7. The notes are settled through physical delivery or through clearing. **(Clearing & Settlement)**

## **2. EURO CREDITS**

### **Concept:**

Most of the lending in Euro currency markets takes the form of Euro credit. Euro credits are short to medium term loans of Eurocurrency extended by Euro banks to corporations, sovereign governments, noncorporate banks, or international organizations. Euro credits belong to wholesale sector of the international capital market and normally involves large amounts.

### **Features:**



1. Euro credits are provided normally without any collateral security from the borrower. Greater emphasis is laid on credit rating of the borrower rather than on any tangible security. Providing Euro credits as unsecured facilities also renders the job easy by avoiding complicated procedures to take charge of security.

**(Security)**

2. Euro credits are normally provided in either of the following two forms: i) revolving credit ii) term credit. Revolving credit is similar to a cash credit facility. It is a standby facility to meet temporary but recurring financial requirements of the borrower. Interest is charged on actual amount utilized. Term credit is similar to medium-term loans provided by banks. At the beginning itself both the lenders and borrowers agree on schedule of drawing the facility. The repayment schedule is fixed taking into account the expected revenue flow from the investment. **(Type of Facility)**

3. The period of Euro credits extends up to 15 years. But most of the credits are for period of 5 to 8 years.

**(Time Period)**

4. Interest is fixed at certain percentage over a reference rate, generally the interbank rate of Euro currency deposits. For dollar loans the reference rate is LIBOR; for Euro it is EURIBOR. **(Interest Rate)**

5. Most of the loans are raised in dollars. Some loan agreement also provides for the currency option. That is, initially the loan is raised in the dollars. The borrower is given the option to roll over the loan in a different currency according to his requirement. **(Currency)**

6. Each Euro credit runs into a huge amount of a few hundred million dollars. It is not safe or possible for a single bank to undertake the entire amount. Thus, few banks form a syndicate (similar to consortium lending in domestic banking) to provide funds to the borrower. **(Syndication of Loans)**

**EURO COMMERCIAL PAPER:**



**Concept:**

- Another attractive form of short-term debt instrument that emerged during mid-1980s came to be known as *Euro Commercial Paper (ECP)*.
- It is a promissory note like short term Euro notes (although it is different from Euro notes) issued only by highly rated corporate body.
- Generally, the issue is not underwritten and therefore companies with high-ranking issue ECP.
- Euro notes and Euro Commercial Paper are different from each other.
- ECPs are not underwritten; while the Euro notes are underwritten. Further, the ECP route for raising funds is normally investor driven, while the Euro note is said to be borrower driven. (Difference between Euro note & Euro Commercial Paper)

**Features:**

1. The prefix “Euro” means that the ECP is issued outside the country in the currency in which it is denominated.

Most of the ECPs are denominated in US dollars. **(Currency)**

2. The detailed features of ECPs vary from one country to another. They involve market-based interest rate, LIBOR. **(LIBOR)**

3. The issue is normally arranged through placement agents as in the case of Euro notes. The amount varies from US \$ 10 million to US \$ 1 billion or above. **(Amount)**

4. The ECPs are issued either in interest bearing form or in a discounted form with interest built in the issue price itself. Usually, they are issued on a discount to yield basis. **(Form of Interest)**





5. On completion of the maturity, they are settled generally at the clearing houses. **(Settlement)**

6. For the borrowers ECP provides a cheap source of finance as the interest rate is lesser than that paid on bank borrowings. It is flexible as the size of issue can be varied according to the requirements. For the investors the yield is higher than that on the bank deposits, they are negotiable and hence liquid, and the duration is short so that it fits into their short-term financial plans. **(Benefits of ECP)**

## **INTERNATIONAL BANKING**

- It can be characterized by the types of services they provide that distinguish them from domestic banks.
- Foremost, international banks facilitate the imports and exports of their clients by arranging trade financing. Additionally, they serve their clients by arranging for foreign exchange necessary to conduct cross-border transactions and make foreign investments.
- In conducting foreign exchange transactions, banks often assist their clients in hedging exchange rate risk in foreign currency receivables and payables through forward and options contracts.
- Since international banks have the facilities to trade foreign exchange, they generally also trade foreign exchange products for their own account.
- Major distinguishing features between domestic banks and international banks are the types of deposits they accept and the loans and investments they make.
- Large international banks both borrow and lend in the Eurocurrency market.
- Additionally, they are frequently members of international loan syndicates, participating with other international banks to lend large sums to MNCs needing project financing and sovereign governments needing funds for economic development.
- Moreover, depending on the regulations of the country in which it operates and its organizational type, an international bank may participate in the underwriting of Eurobonds and foreign bonds.



- Banks that both perform traditional commercial banking functions, the subject of this chapter, and engage in investment banking activities are often called merchant banks.
- International banks frequently provide consulting services and advice to their clients.
- Areas in which international banks typically have expertise are foreign exchange hedging strategies, interest rate and currency swap financing, and international cash management services.

## **Types of International Banking Services/Offices**

### **1. CORRESPONDENT BANK**

- The large banks in the world will generally have a correspondent relationship with other banks in all the major financial centers in which they do not have their own banking operation.
- It is established when two banks maintain a correspondent bank account with one another. For example, a large New York bank will have a correspondent bank account in a London bank, and the London bank will maintain one with the New York bank.

### **Functions**

- The correspondent banking system enables a bank's MNC client to conduct business worldwide through his local bank or its contacts.
- Correspondent banking services center around foreign exchange conversions that arise through the international transactions the MNC makes.
- However, correspondent bank services also include assistance with trade financing, such as honoring letters of credit and accepting drafts drawn on the correspondent bank.
- Additionally, a MNC needing foreign local financing for one of its subsidiaries may rely on its local bank to provide it with a letter of introduction to the correspondent bank in the foreign country.



### **Merits-Demerits**

- The correspondent bank relationship is beneficial because a bank can service its MNC clients at a very low cost and without the need of having bank personnel physically located in many countries.
- A disadvantage is that the bank's clients may not receive the level of service through the correspondent bank that they would if the bank had its own foreign facilities to service its clients.

### **2. REPRESENTATIVE OFFICES**

- It is a small service facility staffed by parent bank personnel that is designed to assist MNC clients of the parent bank in dealings with the bank's correspondents.
- It is quasi sales office.
- It cannot book loans or take deposits but they can develop business for the head office and arrange for these things to happen elsewhere.
- It is a way for the parent bank to provide its MNC clients with a level of service greater than that provided through merely a correspondent relationship.
- The parent bank may open a representative office in a country in which it has many MNC clients or at least an important client.
- It also assists MNC clients with information about local business practices, economic information, and credit evaluation of the MNC's foreign customers.

### **3. FOREIGN BRANCH BANK**

- It operates like a local bank, but legally it is a part of the parent bank.
- As such, a branch bank is subject to both the banking regulations of its home country and the country in which it operates.
- There are several reasons why a parent bank might establish a branch bank.



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- The primary one is that the bank organization can provide a much fuller range of services for its MNC customers through a branch office than it can through a representative office.
- For example, branch bank loan limits are based on the capital of the parent bank, not the branch bank. Consequently, a branch bank will likely be able to extend a larger loan to a customer than a locally chartered subsidiary bank of the parent.
- Additionally, the books of a foreign branch are part of the parent bank's books.
- Thus, a branch bank system allows customers much faster check clearing than does a correspondent bank network because the debit and credit procedure is handled internally within one organization.

### **4. SUBSIDIARY AND AFFILIATE BANKS**

- **A subsidiary bank** is a locally incorporated bank that is either wholly owned or owned in major part by a foreign parent.
- **An affiliate bank** is one that is only partially owned but not controlled by its foreign parent.
- Both subsidiary and affiliate banks operate under the banking laws of the country in which they are incorporated.
- U.S. parent banks find subsidiary and affiliate banking structures desirable because they are allowed to underwrite securities.
- Foreign-owned subsidiary banks in the United States tend to locate in the states that are major centers of financial activity, as do U.S. branches of foreign parent banks.
- In the United States, foreign bank offices tend to locate in the highly populous states of New York, California, Illinois, Florida, Georgia, and Texas.

### **5. OFF SHORE BANKING CENTERS**



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- Historically, offshore banking has primarily been motivated by the desire to directly escape the reach of onshore authorities—most importantly via the avoidance of financial regulation in the Euromarkets, and the sheltering of assets from taxation in secrecy havens.
- The need for channelizing huge international money resources that OPEC came to possess following the oil crisis resulted in setting up of number of offshore centers.
- These centers exist in almost all Asian countries like Singapore, Hong Kong, Philippines, Colombo and Bahamas. **(Origin of Off shore banking)**

**An offshore banking unit (OBU)** is a bank **shell branch**, located in another international financial center (or, in the case of India, a Special Economic Zone).

Offshore banking units (OBUs) make loans in the Eurocurrency market, when they accept deposits from foreign banks and other OBUs. **(Concept)**

Off shore banking is carried out in about 20 centers throughout the world which offer the following benefits:

- Exemption from minimum reserve requirements
- Freedom from control on interest rates.
- Low or non-existent taxes and levies.
- Entry is relatively easy, especially for large international banks, in contrast to the situation in neighboring countries, which may strictly limit or prohibit the entry of foreign banks.
- License fees are generally low.

MNCs prefer transacting in offshore financial centers because of certain apparent advantages: 1. avoidance of high tax incidence 2. freedom from exchange control; 3. maintenance of secrecy of deals due to non-interference from government and regulatory authorities **(Benefits of OBU)**



**ONE WORD SUBSTITUTION**

Sr.No	Question	Answer
1	There is high marginal cost in international banking	False
2	Banks follow their multinational customers abroad to avoid losing their business at home and abroad is called?	Wholesale Defensive Strategy
3	Multinational banks also compete for retail services such as traveler's cheque, tourist and foreign business market is called?	Retail Defensive Strategy
4	_____is a current account maintained by a domestic banker/dealer with a Foreign Bank in Foreign Currency.	Nostro account
5	_____is a current account maintained by a foreign bank with domestic bank in Rupee currency.	Vostro account
6	_____is a Current Account Maintained by one Domestic Bank on behalf of other domestic bank in foreign bank in foreign currency.	Loro account
7	A_____bank relationship is established when two banks maintain a correspondent bank account with one another.	correspond
8	A_____is a small service facility staffed by parent bank personnel that is designed to assist MNC clients of the parent bank in dealings with the bank's correspondents.	<i>representative office</i>
9	A_____operates like a local bank, but is legally part of the the parent.	Foreign bank
10	A_____is a locally incorporated bank wholly or partly owned by a foreign parent.	Subsidiary bank
11	An_____bank is one that is partly owned but not controlled by the parent.	Affiliate
12	_____banks are federally chartered subsidiaries of U.S. banks that are physically located in the U.S. that are allowed to engage in a full range of international banking activities.	Edge Act
13	An_____banking center is a bank located outside the country of residence of the depositor, typically in low tax region that provide financial and legal advantage.	Offshore
14	_____branches are branch of an American bank outside US with few operations other than to handle the banks overseas transaction.	Shell
15	_____refers to the amount of equity capital and other securities a bank holds as reserves.	Bank capital adequacy
16	_____are short- to medium-term loans of Eurocurrency.	Euro credits
17	_____are short-term notes underwritten by a group of international investment banks or international commercial banks.	Euro notes
18	_____are unsecured short-term promissory notes issued by corporations and banks.	Euro commercial papers



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19	_____ is a benchmark rate that some of the world's leading banks charge each other for short-term loans.	LIBOR
20	The history of the _____ banking crisis is a result of a complex combination of events and the structure of the _____ financial system.	Japanese
21	Full form of LDCs.	Less Developed Countries



## **INTERNATIONAL EQUITY MARKET**

### **1. Introduction**

- During the 1980s world capital markets began a trend toward greater global integration.
- First, investors began to realize the benefits of international portfolio diversification.
- Second, major capital markets became more liberalized through the elimination of fixed trading commissions, the reduction in governmental regulation, and measures taken by the European Union to integrate their capital markets.
- Third, new computer and communications technology facilitated efficient and fair securities trading through order routing and execution, information dissemination, and clearance and settlement.
- Fourth, MNCs realized the benefits of sourcing new capital internationally. In this section, we explore some of the major effects that greater global integration has had on the world's equity markets.

### **2. Cross Listing:**

- Cross-listing refers to a firm having its equity shares listed on one or more foreign exchanges, in addition to the home country stock exchange.
- Cross-listing is not a new concept; however, with the increased globalization of world equity markets, the amount of cross-listing has exploded in recent years.
- In particular, MNCs often cross list their shares, but non-MNCs also cross-list.

#### **Reasons for Cross listing**

1. Cross-listing provides a means for expanding the investor base for a firm's stock, thus potentially increasing the demand for the stock. Increased demand for a company's stock may increase the market price. Additionally, greater market demand and a broader investor base improves the price liquidity of the security.





2. Cross-listing establishes name recognition of the company in a new capital market, thus paving the way for the firm to source new equity or debt capital from local investors as demands dictate.

3. Cross-listing brings the firm's name before more investor and consumer groups. Local consumers (investors) may more likely become investors in (consumers of) the company's stock (products) if the company's stock is (products are) locally available. International portfolio diversification is facilitated for investors if they can trade the security on their own stock exchange.

4. Cross-listing may mitigate the possibility of a hostile takeover of the firm through the broader investor base created for the firm's shares.

- Cross-listing of a firm's stock obligates the firm to adhere to the securities regulations of its home country as well as the regulations of the countries in which it is cross listed.
- Cross-listing in the United States means the firm must meet the accounting and disclosure requirements of the U.S. Securities and Exchange Commission.
- There are two forms of cross-border listing, namely, direct listing and indirect listing.
- Direct listing implies that the firm concerned offers ordinary shares to the public. Indirect listing on exchanges is through Depository Receipts (DRs).
- Cross listing through DRs has more advantages compared to direct listings as it offers an easier and flexible mechanism with less stringent regulations for individual companies to enter foreign markets according to their needs, thereby enabling the investors to realize dividends and capital gains in that market.

### **3. Depository Receipts:**

- Depository receipt is defined as negotiable financial instrument issued by a bank to represent a foreign company's publicly traded securities, which is traded on a local financial market.



- In simple words, American Depository Receipts (ADR) are certificates issued by a U.S. bank that represent a certain number of shares of a particular foreign security on deposit with the bank, or a "custodian" bank in the foreign country.
- DR is an innovative global finance vehicle and a negotiable certificate, denominated in US dollars, Euro or in a currency of host country, allowing an issuer to raise capital simultaneously in two or more markets through a global offering.
- They may be used in either the public or private markets inside the U.S. (i.e. American Depository Receipt or ADR), or outside the U.S. (i.e. Global Depository Receipt or GDR).

#### **4. Types (Levels) of American Depository Receipts (ADR):**

There are different formats of Depository receipts and companies have a choice of different types of Depository Receipts' facilities form two broad categories of:

A. Un-sponsored DRs

B. Sponsored DRs.

#### **Un-sponsored DRs**

- Un-sponsored DRs are issued by one or more depositories in response to the market demand without a formal agreement with the company and its involvement.
- An unsponsored DR is created by a U.S. investment bank or brokerage that buys the shares in the country where the shares trade, deposits them in a local bank – the custodian bank, which is often a branch of a U.S. bank, called depository bank.
- The depository bank then issues share that represent an interest in the stocks and handles most of the transactions with the investor.



- Un-sponsored ADR programs are exempted from the SEC's reporting requirements and can only be traded on the over-the-counter market.
- For a depository bank to establish an un-sponsored ADR program, the issuer must be exempt from the registration and reporting requirements.

### **Sponsored DRs**

When the company sponsors the creation of its own ADR i.e., involved in formal agreement with depositories. It is a case of sponsored ADR.

#### **Level – I ADR**

The sponsored level I DR programs are the simplest method for companies to access foreign capital market. The company does not have to comply with U.S. General Accepted Accounting Principles (GAAP), or full Securities and Exchange Commission disclosure. They are the vast majority of sponsored DRs, allowing companies to benefit from publicly traded securities without changing their current reporting process. The level-I ADR programs are not allowed to list on the US stock exchanges, however, they are allowed to be traded on the US OTC markets and or on some stock exchanges outside the US. **Level – II & Level - III ADR**

Level 2 and Level 3 sponsored ADRs must register with the SEC, and financial statements must be reconciled to GAAP. A Level 2 ADR requires partial compliance with GAAP, while a Level 3 ADR requires complete compliance.

A Level 3 sponsorship is required, if the ADR is a primary offering and is used to raise capital for the company. Only Level 2 and Level 3 sponsored ADRs can be listed on the New York Stock Exchange, the American Stock Exchange, or NASDAQ.



## **5. Mechanism of ADR:**

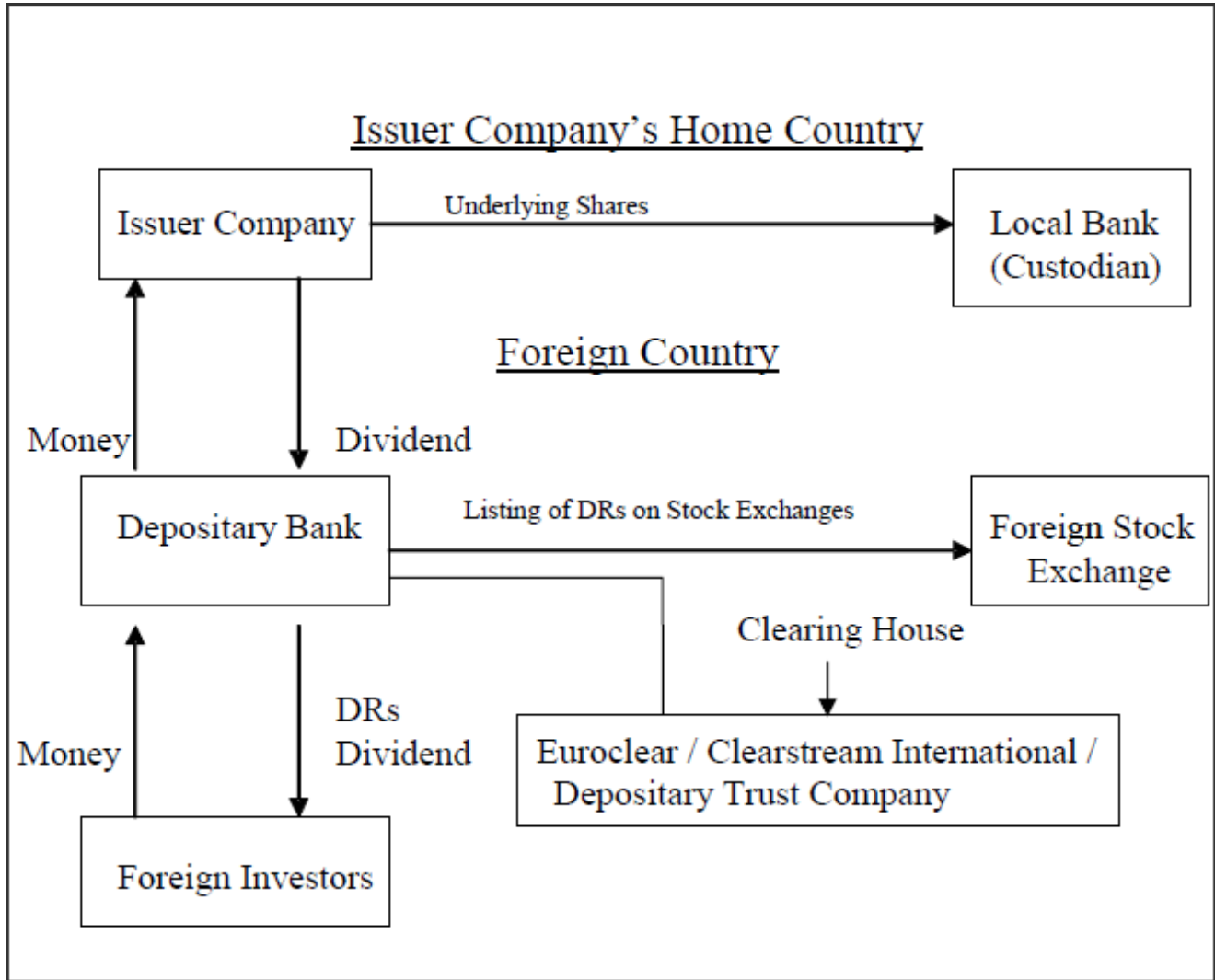
1. The issuing company has to fulfil the listing criteria for DRs in the other country.

2. Before creating DRs, the shares of the foreign company—which the DRs represent—are delivered

and deposited with the custodian bank of the depository creating the DRs

3. Once the custodian bank receives the shares, the depository creates and issues the DRs to the investors in the country where the DRs are listed.

4. These DRs are then listed and traded in the local stock exchanges of the other country.





**6. Global Depository Receipts (GDR):** A Global Depository Receipt (GDR) is a negotiable instrument issued by a depository bank in international markets — typically in Europe and generally made available to institutional investors both outside and within the U.S. — that evidences ownership of shares in a non-U.S. company, enabling the company (issuer) to access investors in capital markets outside its home country. Each GDR represents a specific number of underlying ordinary shares in the international company, on deposit with a custodian in the applicable home market. GDRs are quoted and traded in U.S. dollars, pay dividends in U.S. dollars and are subject to the trading and settlement procedures of the market in which they are transacted. In order to establish a GDR program, the issuer first appoints a team of advisors that typically includes investment bankers, lawyers and accountants. The issuer also selects a depository bank to manage the implementation of the program. The depository bank also performs the critical role of liaison among the various parties to the transaction, and will remain integral to the long-term development of the GDR program.

Generally, the functions of the lawyers and accountants will eventually transition to periodic reporting and general legal matters. Investment bankers will typically not be involved with the ongoing management of a GDR program as well; however, the program will become an important consideration for investment bankers if the issuer contemplates going to the capital markets in the future. The depository bank is the only party to GDR transactions that is engaged on an end-to-end basis.



Sr.No	Line.No	Question	Answer
1	1-2	Almost____of the total market capitalization of the world's equity markets is accounted by the developed world.	92%
2	3-4	_____refers to how quickly an a security can be converted into cash.	Liquidity
3	5-6	Shares offered for sale directly from the issuing company is called?	Primary market
4	7-8	The market participants with marketability and share valuation is called?	Secondary market
5	9-10	An order to your broker to buy or sell share immediately at the market price is called?	Market order
6	11-12	An order to your broker to buy or sell at the at a price you want, when and if he can is called?	Limit order
7	14-15	The stock is sold by dealers, who stand ready to buy and sell the security for their own account is called?	Dealer market
8	17-19	Organized exchanges have specialists who match buy and sell orders is called?	Auction market
9	20-22	Full form of WEBS	World Equity Benchmark Shares
10	24-25	WEBS are traded on____Stock Exchange.	American
11	26-27	_____refers to a firm having its equity shares listed on one or more foreign exchanges.	Cross-listing
12	28-29	_____DRs are issued by one or more depositories in response to the market demand without a formal agreement with the company and its involvement.	Un-sponsored
13	30-31	A_____sponsored ADR is created by the company to extend the market for its securities to this country, but without needing to register with the SEC, or conforming to generally accepted accounting principles (GAAP).	Level 1



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14	33-34	A Level ___ADR requires partial compliance with GAAP.	Level 2
15	35-37	A Level ___ADR requires complete compliance with GAAP.	Level 3





## INTERNATIONAL BOND MARKET

### Introduction

- International bonds are a debt instrument.
- They are issued by international agencies, governments and companies for borrowing foreign currency for a specific period of time.
- The issuer pays interest to the creditor and makes payment of capital. There are different types of such bonds. Generally, international bonds are classified as **foreign bonds** and **Euro bonds**.

### 1. Difference between Euro Bonds & Foreign Bonds

There is a difference between a foreign bond and Euro bond.

**Firstly**, In case of a foreign bond, the issuer selects a foreign financial market where the bonds are issued in the currency of that country. On the contrary, in the case of Euro bonds, they are denominated in a currency other than the currency of the country where the bonds are issued. For example, if an Indian company issues bond in Tokyo and the bond is denominated in US dollar, it will be called an Euro Bond. However, if Indian company's bond is denominated in US dollar, the bond is issued in New York (USA); then it will be called foreign bond.

**Secondly**, foreign bonds are underwritten normally by the underwriters of the country where they are issued. But the Euro Bonds are underwritten by the underwriters of multi-nationality.

**Thirdly**, the maturity of foreign bond is determined keeping in mind the investors of a particular country where it is issued. On the other hand, the Euro Bonds are tailored to the needs of multinational investors. In the beginning, the Euro bond market was dominated by individuals who had generally no choice for shorter maturity, but now



the institutional investors dominate the scene who do not seek Euro bond maturity necessarily to match their liabilities. The result is that the maturity of Euro bonds is diverse.

**Fourthly**, foreign bonds are normally subjected to governmental regulations in the country where they are issued. But the euro bonds are free from rules and regulations of the country where they are issued. The reason is that the currency of denomination is not the currency of that country and so it does not have direct impact on the balance of payments.

## **2. Procedure of Issue of International Bonds:**

### **1. Appointment of Lead Manager and Launching of Issue (Stage 1):**

- There are different stages involved in the issue of international bonds.
- Since the issuer – normally a government or a company – does not have a detailed idea about the international financial market, nor it is easy for the issuer to perform several formalities, a lead manager who advises the issuer on different aspects of the issue.
- Normally, the lead manager is a commercial bank or an investment bank.
- The issuer selects a particular lead manager on the reports published by different agencies about the performance of the investment banks in the area of lead managing.
- The lead manager advises the issuer regarding the main features of issue, the timing, price, maturity, and the size of the issue and about the buyer's potential.
- The lead manager takes help from the co managers, although the bulk of work is done by itself.
- After getting the advice from the lead manager, the issuer prepares the prospectus and other legal documents. In this process, the issuer's own accountant, auditor, legal counsel is very important for designing the issue in accordance with the financial need of the company as well as with regulatory



provisions existing in the country. The lead manager and the lawyers also prepare the documentation and obtain the necessary clearances.

### 2. Floating the Issue, Credit rating and Underwriting (Stage 2):

The second stage begins when the issue is launched. Investors look at the credit rating of the issuer as well as who is underwriting the issue. This is why the lead manager along with co-managers helps in credit rating of the issuer by a well-recognized credit-rating institution. At the same time, it functions as an underwriter and charges underwriting fee.

### 3. Selling of Bonds (Stage 3):

The third stage begins after the underwriting process is complete. This stage includes the process of selling the bonds. More often, the lead manager functions as a selling group and for that it charges commission at varying rates. The investors, on the other hand, are individuals. They are institutions, such as investment trust, banks and companies. They often purchase the bond through their buying agents. There are also trustees of the investors, especially in case of default by borrower. Sometimes the lead manager acts as a trustee. Finally, there are listing institutions. They enlist bonds for secondary marketing.

It may be noted that the entire procedure of the international bond issue complete within a specified time span. After the press release of the prospectus, it takes 27 days. The first 12 days are spent on sales campaign which is known as the **offering period**. On the 12<sup>th</sup> day, underwriting agreement is signed, which is known as the **pricing day**. During the following 15 days, bonds are sold and delivered and the necessary payments made.

Major distinguishing features between domestic banks and international banks are the types of deposits they accept and the loans and investments they make. Large international banks both borrow and lend in the Eurocurrency market. Additionally, they are frequently members of international loan syndicates, participating



with other international banks to lend large sums to MNCs needing project financing and sovereign governments needing funds for economic development. Moreover, depending on the regulations of the country in which it operates and its organizational type, an international bank may participate in the underwriting of Eurobonds and foreign bonds. Banks that both perform traditional commercial banking functions, the subject of this chapter, and engage in investment banking activities are often called merchant banks.

International banks frequently provide consulting services and advice to their clients. Areas in which international banks typically have expertise are foreign exchange hedging strategies, interest rate and currency swap financing, and international cash management services.

### **3. Types of Bonds:**

#### **1. Straight Bonds**

The straight bonds are the traditional type of bonds. In this case, interest rate is fixed. The interest rate is known as coupon rate. It is fixed with carry fixed reference to rates on treasury bonds for comparable maturity. The credit standing of the borrower is also taken into consideration for fixing the coupon rate.

These are fixed interest-bearing securities, the interest normally payable at yearly intervals. Interest is payable on the basis of interest year of 360 days. Maturities range from 3 to 25 years. Maturity common is up to 15 years. But the actual life of a bond is reduced considerably by the borrower exercising the right to redemption before maturity that is included in the bond. The redemption is done by offering a premium.

#### **2. Floating Rate Notes**

Bonds which do not carry fixed rate of interest, are rate Floating Rate Notes (FRNs). Such bonds were issued for the first time in Italy during 1970 and they have become common in recent times. The interest rate is quoted as a premium or discount to a reference rate which is invariably LIBOR. The interest rate is revised periodically,



say, at every three-month or every six month period, depending upon the period to which the interest rate is referenced to. For example, if the interest rate is referenced to one-month LIBOR, it would be revised every month.

The advantage of FRN is that they provide the investors with the facility of investing for long term and also benefit from movement in short term rates. Most issuers of FRNs have been banks.

### **3. Convertible bonds**

- International bonds are also convertible bonds meaning that these variants are convertible into equity shares. Some of the convertible bonds have detachable warrants involving acquisition rights.
- In other cases, there not automatic convertibility into a specified number of shares.
- Convertible bonds command a comparatively high market value because of the convertibility privilege. The value is the sum of the naked value existing in tin absence of conversion and the conversion value. The conversion price per share. computed by dividing the band's face value by the conversion factor, where the conversion factor represents the number of shares into which each bond could be exchanged. Suppose, a bond having a face value of \$ 1,000 can be exchanged for 15 shares, the conversion price will be equal to:

$$\$ 1,000/15 = \$ 66.66$$

Thus, if the market price of share is less than \$ 66.66, say \$ 60, bond-holders will not be interested in converting the bond into equity share. This is so because for a bond of \$ 1,000, a creditor will get 15 shares or \$ 900 only. But if the market price of share is \$ 80, the investors will convert the bond into equity shares and sell the equity shares in the market. This way each bond for \$ 1,000 will fetch \$ 1,200.13 other words, the price of convertible bonds depends upon the price of the equity shares.



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In the case of bonds with detachable warrants, the warrant can be detached from the bond and can be traded independently. The issuer has a double sourced financing. The bonds remain outstanding even if the warrants are exercised.

From the viewpoint of the borrowers, convertible bonds cost less because they have lower coupon. They also help decrease the debt-equity ratio after conversion. From the investors' point of view, convertible bonds represent a better option as the investors get a fixed income in the form of interest prior to conversion. After conversion, they become the owner of the company.



## ONE WORD SUBSTITUTION

1	___ Bonds are bonds with no registered owner. As they are nameless, they offer the same risk of loss as currency.	Bearer
2	___ bonds the owners name is registered with the issuer.	Registered
3	Full form of SEC	Securities and Exchange Commission
4	___ rule allows qualified institutional investors to trade private placements.	Sec 144A
5	A ___ bond is a bond which is issued in several countries at the same time.	global
6	Global bond issues were first offered in ___	1989
7	___ bonds with a specified interest rate and principal repayment on maturity.	Plain Vanilla
8	___ has a variable interest rate and are for medium term period.	Floating rate note
9	A ___ <b>bond</b> issue allows the investor to exchange the bond for a predetermined number of equity shares of the issuer.	convertible
10	Investor buy at discount from their face value is called?	Zero coupon bond
11	A straight fixed-rate bond, with interest paid in one currency, and principal in another currency is called?	Dual currency bond
12	Composite currency bond is also known as ___	Currency cocktail bond
13	Euroclear is based in ___ and is operated by Euroclear Bank.	Brussels
14	Clearstream is located in Luxembourg.	True
15	___ stand ready to buy or sell for their own account by quoting two-way <b>bid</b> and <b>ask prices</b> .	Market makers



## ☼ Letter of Credit ☼

### **INTRODUCTION**

'Letters of Credit' also known as 'Documentary Credits' is the most commonly accepted instrument of settling international trade payments. A Letter of Credit is an arrangement whereby Bank acting at the request of a customer (Importer / Buyer), undertakes to pay for the goods / services, to a third party (Exporter / Beneficiary) by a given date, on documents being presented in compliance with the conditions laid down.

### **PARTIES TO A LETTER OF CREDIT (LC)**

A letter of credit transaction normally involves the following parties:

- i) **APPLICANT / OPENER** – the buyer of the goods / services (Importer) on whose behalf the credit is issued.
  
- ii) **ISSUING BANK** - the Bank which issues the credit and undertakes to make the payment on behalf of the applicant as per terms of the L/C.
  
- iii) **BENEFICIARY** - the seller of the goods / services (exporter) in whose favour the credit is issued and who obtains payment on presentation of documents complying with the terms and conditions of the LC.
  
- iv) **ADVISING BANK** – Banks which advises the LC, certifying its authenticity to beneficiary and is generally a bank operating in the country of the beneficiary.





v) **CONFIRMING BANK** – A bank which adds its guarantee to the LC opened by another Bank and thereby undertakes responsibility for payment/acceptance/negotiation/incurred deferred payment under the credit in addition to that of the Issuing Bank. It is normally a bank operating in the country of the beneficiary and hence its guarantee adds to the acceptability of the LC for the beneficiary. This is being done at the request / authorization of the Issuing Bank.

vi) **NOMINATED BANK** – A Bank in exporter's country which is specifically authorized by the Issuing Bank to receive, negotiate, etc., the documents and pays the amount to the exporter under the LC.

vii) **REIMBURSING BANK** – Bank authorized to honor the reimbursement claim made by the paying, accepting or negotiating bank. It is normally the bank with which Issuing Bank has Nostro Account from which the payment is made to the nominated bank.

viii) **TRANSFERRING BANK** – In a transferable LC, the 1<sup>st</sup> Beneficiary may request the nominated bank to transfer the LC in favor of one or more second beneficiaries. Such a bank is called Transferring Bank. In the case of a freely negotiable credit, the bank specifically authorized in the LC as a Transferring Bank, can transfer the LC.

## **TYPES OF LETTERS OF CREDIT**

### **REVOCABLE LETTER OF CREDIT**

- A revocable letter of credit is one which can be cancelled or amended by the issuing bank at any time and without prior notice to or consent of the beneficiary.
- From the exporter's point of view such LCs are not safe.



- Besides exporter cannot get such LCs confirmed as no bank will add confirmation to Revocable LCs. However, if any bank has negotiated bills before receipt of notice of revocation, opening bank is liable to honor its commitments.
- The LC should clearly state that the same is revocable. As per Article-3 of UCP 600, a credit is irrevocable even if there is no indication to that effect.
- Further UCP 600 does not provide for revocable LCs and therefore such credits no longer exist.

### **IRREVOCABLE LETTER OF CREDIT**

An Irrevocable Letter of Credit is one which cannot be cancelled or amended without the consent of all parties concerned.

### **REVOLVING LETTER OF CREDIT**

- A Revolving Letter of Credit is one where, under terms and conditions thereof, the amount is renewed or reinstated without specific amendments to the credit being needed.
- It can revolve in relation to time and value.
- This type of credit is generally used in local trade and sometimes for import also.
- Such credits are opened for a stated amount and the drawings under the LC are reinstated as soon as the documents are paid.
- The LC can be restricted to the individual amount of drawing at a time as well as aggregate number of drawings.



- The Issuing bank has to confirm to the negotiating bank about the acceptance / payment of the documents for reinstatement of the amount in the LC.
- In revolving LC for import, the maximum drawings and the validity would be to the extent permitted by the import licence, if such imports are backed by Import Licence.
- Generally, we do not open Revolving LCs for import.
- However in exceptional cases such L/C may be opened with adequate safeguards / conditions subject to strict compliance of Foreign Trade Policy and Exchange Control Regulations particularly with reference to aggregate drawings under such L/C & shipment dates etc.

### **TRANSFERABLE LETTER OF CREDIT**

A Transferable Credit is one that can be transferred by the original (first) beneficiary to one or more second beneficiaries. When the sellers of goods are not the actual suppliers or manufacturers, but are dealers/middlemen, such credits may be opened, giving the sellers the right to instruct the advising bank to make the credit available in whole or in part to one or more second beneficiaries. The LC can be transferred to more than one second beneficiary provided LC permits partial shipment and aggregate value of amounts so transferred does not exceed value of original LC. The LC can be transferred only once and only on terms stated in the credit, with the exception of :

- The amount of the Credit,
- Any unit price stated therein,
- The expiry date,
- The latest shipment date or given period for shipment,
- The period for presentation of documents, any or all of which may be reduced or curtailed.



- i) Second beneficiaries should be specific and limited in number,
- ii) Satisfactory credit report on second beneficiary should have been received. Further the second beneficiary must be a shipper / manufacturer or supplier of goods.
- iii) Second beneficiary should normally be residing in the same country. If resident of another country, method of payment of second beneficiary's country should conform to Exchange Control Regulations.
- iv) Underlying contract indent/order should provide for such transfers.

The percentage for which insurance cover must be affected may be increased to provide the amount of cover stipulated in the credit.

The LC is deemed to be transferable only if it is stated to be 'Transferable' in the LC. Second beneficiary has no right to transfer to third beneficiary. However, he can retransfer to the first beneficiary. As per our Bank's policy, Transferable Import LCs is normally not opened. However, transferable LCs can be opened in exceptional case, by specifying the second beneficiaries in the LC itself or by amendment, provided.

### **BACK-TO-BACK LETTER OF CREDIT**

- In case of a transferrable LC, the beneficiary can ask the nominated Bank to transfer the credit in favour of his suppliers.
- But, where the credit is not transferrable and in cases where in a middle man enters into a contract to supply goods to be obtained from other suppliers but is unwilling to disclose the identity of the buyer and the buyer also is unwilling to open a Transferable Letter of Credit, such Back to Back credits are opened. Irrevocable letter of credit opened by the buyer, is used by the beneficiary as



security with his bank against which it agrees to open LC in favour of the actual supplier / manufacturer.

- The beneficiary of the original L/C will become the applicant for the second set of L/C (back to back L/C). The terms of back to back L/C will be almost identical to the L/C received from the buyer except to the extent of amount, unit price and delivery dates, which will be prior to the expiry of original L/C.

The original credit which is offered as security / backing is called the PRINCIPAL CREDIT or OVERRIDING CREDIT and the credit opened on its backing is called the BACK TO BACK credit or COUNTERVAILING CREDIT.

### **RED CLAUSE LETTER OF CREDIT**

- Such letters of credit contain a clause which enables the beneficiary to avail of an advance before effecting shipment to the extent stated in the LC.
- The clause used to be printed in red, hence the LC is called Red Clause LC.
- The nominated bank provides the pre-shipment credit to the beneficiary as per the authority given by the issuing Bank.
- In case the beneficiary fails to export the goods or fails to repay the advance the nominated bank gets the amount paid by the issuing bank.

### **GREEN CLAUSE LETTER OF CREDIT**

- This is an extension of Red Clause Letter of Credit, in that it provides for advance not only for purchase of raw materials, processing and/or packing but also for warehousing and insurance charges at the port pending availability of shipping space.



- Generally advance is granted under this LC only after goods are put in bonded warehouses etc. up to the period of eventual shipment. In such cases warehouse receipts are obtained as security / documentary evidence.

### **PAYMENT LETTER OF CREDIT**

- Payment credit is a sight credit which is available for payment at sight basis against presentation of requisite documents to the issuing bank or the nominated bank.
- In a payment credit, beneficiary may or may not be called upon to draw a Bill of Exchange. In many countries, because of stamp duties even on sight bills, drawing Bill of Exchange is dispensed with.

### **DEFERRED PAYMENT LETTER OF CREDIT**

- Deferred Payment Credit is an usance credit where, payment will be made by Issuing bank, on respective due dates, determined in accordance with the stipulations of the credit, without the drawing of Bill of Exchange.
- In a way, it is an extended payment credit. Under deferred payment credit, no Bill of Exchange will be called upon to be drawn, but it must specify the maturity at which payment is to be made and how such maturity is to be determined.
- Deferred payment arrangements for Imports, providing for payment beyond 6 months from the date of shipment up to a period of less than three years are treated as Trade Credits for which procedural guidelines laid down by RBI for External Commercial Borrowing and Trade Credits are required to be followed.

### **ACCEPTANCE LETTER OF CREDIT**

- Acceptance Credit is similar to deferred payment credit except for the fact that in this credit drawing of a usance Bill of Exchange is a must.



- Under this credit, Bill of Exchange must be drawn on the specified bank for specified tenor, and the designated bank will accept and honour the same, by making payment on the due dates.

### **NEGOTIATION LETTER OF CREDIT**

- Negotiation Credit can be a sight credit or a usance credit.
- A Bill of Exchange is usually drawn in negotiation credit.
- The draft can be drawn as per credit terms. In a negotiation credit, the negotiation can be restricted to a specific bank or it may allow free negotiation, in which case it is called as 'Freely Negotiable Credit' whereby any bank who is willing to negotiate can do so. Under a negotiation credit, if the bank nominated as a negotiating bank refuses to negotiate, then the responsibility of issuing bank would be to pay as per terms of that credit. However, if the Bill of Exchange is drawn at a tenor (on DA basis) the issuing bank can pay less discount.
- In other words, in all circumstances under a negotiation credit, responsibility of the issuing bank is to pay and it cannot say that it is the responsibility of the negotiating bank.
- A bank which effectively negotiates draft(s)/document(s) buys them from the beneficiary, thereby becoming a holder in due course.

### **CONFIRMED LETTER OF CREDIT**

- Confirmed Letter of Credit is a Letter of Credit to which another bank (bank other than the issuing bank) has added its confirmation.
- This is to say, in a Confirmed Letter of Credit the beneficiary will have a firm undertaking of not only the bank issuing the credit, but also of confirming bank.
- The bank which adds its confirmation is called a confirming bank and it becomes a party to the contract of LC.



- Generally the confirmation to a credit is desired by beneficiary from a bank known to him, preferably the one located in his country so that his risk becomes localised and he can deal easily with a local bank rather than deal with a bank abroad which has issued the credit.
- But this type of LC is costlier to the parties concerned, since there would be charges of confirming bank.
- The LC will be confirmed by another bank with prior arrangement, only when it is advised to do so by the opening bank.
- Confirmation can be added only to irrevocable credits and not to revocable credits.
- When a bank acts as an advising bank, it has the only responsibility to verify the genuineness of the credit.
- But when it adds its confirmation, it becomes a prime obligor like the issuing bank and undertakings to pay / negotiate / accept the documents as per the terms of the credit.

### **STANDBY CREDIT**

The standby credit is a documentary credit or similar arrangement however named or described which represents an obligation to the beneficiary on the part of the issuing bank to make payment on account of any indebtedness undertaken by the applicant, money borrowed or for any default by the applicant in the performance of an obligation.

These credits are generally used as a substitute for financial guarantees. In countries like USA, Japan it is not permissible to issue bank guarantees. Therefore, banks in these countries issue standby letter of credit in situations where normally a letter of guarantee should have been issued. The document generally called for under such credits is a simple statement of claim as certificate of non performance. The standby works as a guarantee in the background of the underlying transaction and it is expected that it will never be drawn.





This facility may be extended on a selective banks for applicants with good track record. The nature of transaction is clean and hence is risky.

### **IMPORT LETTERS OF CREDIT: COMPLIANCE OF REQUIREMENTS**

An import LC is a commitment by the issuing bank to make payment, for the imports which are to be taken place on a future date. While opening import LC, the following requirements of various agencies are to be complied with.

- ix) A resident in India is importing goods / software / designs and drawings into India
- x) A resident merchant trader for the purpose of merchanting trade is importing goods from one country for sale to another country
- xi) An Indian exporter executing a contract abroad, imports goods from a third country into the country where the project is being executed.

#### **20.3.1. TRADE CONTROL REQUIREMENTS**

Trade Control lays down the policy and regulations relating to physical movement of goods into India. Hence bank has to first ensure that goods to be imported can be physically brought to India under the Foreign Trade Policy. Import shall be free except in cases where they are regulated by the provisions of the Foreign Trade Policy or any other law in force for the time being. Item wise import policy shall be as specified in ITC (HS) published and notified by DGFT from time to time.

Hence L/Cs should be opened as per the conditions relating to importability of the respective item as stated in ITC (HS) Classification. Valid import licence issued by competent authority should be submitted by the importer, if required under the policy.

#### **20.3.2 FEMA GUIDELINES**



Exchange Control Regulations of RBI lay down conditions/procedures of payments to be made for import of goods into India. Detailed EC Regulations pertaining to Import are furnished in Chapter 19 of this manual. Payments are to be made in strict conformity with these regulations.

An Import LC should be opened only on behalf of bank's own customers who are known to be participating in the trade and for whom valid sanctioned limits for issuance of Import LCs are in force. "Know Your Customer" (KYC) rules should be observed while handling import transaction.

- i) Though initially a non-funded credit facility, it has the potential to turn into a funded facility.
- ii) Usance LC on DA basis is a substitution of funded facilities.

### **20.3.3. CREDIT NORMS**

Import letter of credit requirements of a customer are to be assessed like any other normal credit proposal in view of the fact that:

If imports are of capital goods, availability of adequate long-term funds in the form of Term Loan/DPG, Surplus Cash flows etc. are to be ensured.

**The following are also to be considered before sanctioning on Import LC limit**

- i. **ABILITY OF THE APPLICANT** to retire the import bills on due date/presentation and/or availability of funded facilities to meet his import payment obligations including payment duties and taxes. It must be ensured that the applicant will be in a position to clear the goods by payment of duties.
- ii. **STANDING OF THE OVERSEAS SUPPLIER:** Credit standing and capability of the supplier to ship the goods as per the requirements is to be assessed by the branches by obtaining a credit report from the overseas banker



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of the supplier/Credit rating agency for establishing import LCs of over USD 100000/ or its equivalent. Waiver of Credit report above the cut off limit should be referred to regional office and within the cut off limit should be by the Branch Manager/Officer of Scale IV grade. The field Officials are required to formally record waiver of credit reports after the delegate has examined such requests for all transactions within the monetary ceiling. The branch has to be satisfied about the standing of the import clients based on their track record for waiver of credit reports. Each transaction is to be carefully scrutinized in relation to the underlying contract and the request of our customer.

iii. **ECONOMIC IMPORT ORDER:** The minimum economic import order and the accepted level of inventory are to be considered along with the total usance period and total lead time while fixing the quantities limit.

iv. **EXCHANGE RISK:** As the import LC is drawn in a freely convertible foreign currency, the importer is exposed to exchange risk. Therefore, importer may be advised to consider booking of forward contract to protect himself from adverse movement of the exchange rates. Delegated Authority for approval of waiver would be with the respective sanctioning authority, who has sanctioned the credit limits.

### **20.3.4. FEDAI/UCPDC PROVISIONS/INTERNAL CONTROL GUIDELINES:**

FEDAI guidelines regarding opening of LC, crystallization of liability etc., are to be followed strictly. Similarly standard formats of LC application/LC documents are suggested by FEDAI which are also adopted by us subject to certain changes.

UCPDC lays down various guidelines for handling LC based international trade transactions. These are also to be borne in mind.

Provisions of URR, (Uniform Rules for Reimbursement) are also to be followed with regard to reimbursement instructions.

In addition, precautions like landed cost, ruling price comparison, manufacturing capability for actual user license, storage and marketing facility etc. are also to be appropriately considered.



## **20.2. OPENING OF LC – GENERAL GUIDELINES**

□ Original letter from DGFT allotting an IEC Number is to be scrutinized and a certified copy to be kept on record for all customers desiring to open LCs for import purposes.

□ LC application form (AD 04) and following documents are to be obtained from the importer. i) Underlying contract or indent

ii) Exchange Control copy of valid import licence, or Open General Licence (OGL) declaration stating that the goods are freely importable furnishing therein ITC(HS) classification number.

iii) Insurance policy or cover note if the imports are on FOB or C&F basis for 110% of LC value, in the currency of the LC to be opened and in favour of the Bank A/c importing customer

iv) Declaration under FEMA 1999, Section 10(5), Chapter III

v) Credit Report on Overseas Seller from the approved credit rating agency, for LCs value exceeding USD one lac and above or equivalent

### **Branch to satisfy that:**

i) The LC application cum agreement form is adequately stamped as per respective State Stamp Duty Act/Laws

ii) The LC application is signed by an authorised signatory of the firm, company etc. The signature is to be verified by the processing officer to satisfy the genuineness. However, no rubber stamp/initial for having verified the signature is to be affixed on the application, since it is a stamped security document. In the case of companies, common seal of the Co. is to be affixed as per sealing clause contained in the Articles of Association duly backed by Board Resolution.



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- iii) The LC application is complete in all respects with clear and consistent instructions which correspond to the conditions / provisions of accompanying contract / indent / licence. In case of any variance the importer customer should be asked to obtain necessary modifications.
- iv) The beneficiary of the LC should not be importer himself or his nominee or his buying agent. Further, beneficiary should be either a manufacturer, supplier or shipper of the goods. Care should be taken with regard to method of payment where the beneficiary is in one country and shipment is authorised from a different country.
- v) If the commodity imported is subject to actual user condition or any other condition, its compliance is ensured by the branch.
- vi) If the merchandise is freely importable, the relevant declaration paragraph in the LC application is properly filled in.
- vii) The insurance policy / cover note provides coverage up to 110% of the invoice value, in the currency of invoice in the banks' name and covers risks under Institute Cargo Clause 'A'. If 'shipment on deck' is permitted under the LC the risk of jettisoning and washing overboard should be covered in case LC permits transshipment, such risk must be covered by insurance. The validity of the insurance should be in consonance with the LC/contract terms.
- viii) The LC should stipulate a condition that goods should be consigned to the bank with importer as a notify party.
- ix) If the import is from Nepal/Bhutan payment under the LC is to be made only in Indian Rupees. Similarly if imports are from ACU countries, payment under the LC should conform to ACU mechanism.
- x) If the import is covered under licence, the importer must submit Exchange Control copy of the same. The licence must be scrutinised to ensure that:  it has not been cancelled by any notification/order etc.  
 it is issued on security paper



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- it has a printed number and date
  - it has a security seal (including on the annexures, if any)
  - it is issued in the name of applicant or properly transferred in his name with proper transfer letters where transferer's signature is attested by his bankers.
  - commodity specified is in agreement with the item specified in the application.
  - quantity / quality / value limits specified are in agreement with those mentioned in the application. It is pertinent to note that irrespective of the sale terms for which letter of credit is proposed to be opened, licence must have adequate value to cover CIF value plus agency commission and interest if any.
  - country of origin of goods if stated in the licence agrees with that specified in the letter of credit application.
  - country of shipment authorised is in agreement with the one stated in the letter of credit application.
  - it is valid for shipment atleast up to the last shipment date requested for in the letter of credit application.
  - if licence stipulates any specific conditions, such conditions should be complied with by the holder/applicant.
  - if licence is issued under any bilateral or multilateral or aid agreements, the conditions stated in the concerned agreements and the relative ITC notification should be complied with. It has to be ensured that licence is operative.
  - if licence stipulates placement of order within a specified time limit, the sale contract submitted must confirm compliance of the condition.
- xi) The L/Cs to be advised through a bank specified by the opener provided we have prior arrangement with that bank. Alternatively, the L/C should be advised through the bank with whom we have arrangement, with instructions to advise the L/C through the bank specified by the L/C opener subject to his approval. i) All required



documents except transport documents and insurance and in cases specifically stipulated, must be issued by beneficiary only.

### **20.3. STANDARD CLAUSES IN LC**

The LC is to be opened incorporating all mandatory/standard clauses listed below and other clauses as per LC application. The terms laid down in the LC should conform to the Exchange Control / Trade Control regulations.

#### **LIST OF MANDATORY CLAUSES**

- ii) Transport documents / Bills of Lading / Airway bills dated prior to LC date are not acceptable.
- iii) Invoice required to be submitted for a value not exceeding draft/Bill of Exchange amount.
- iv) Short Form and third party Bills of Lading are not acceptable.
- v) Transport documents indicating final place of destination different from port of discharge, documents indicating 'intended' or a similar clause in relation to the vessel, other means of transport and/or port of loading and/or the port of discharge are not acceptable.
- vi) Transport documents or Bill of Lading / Airway bill issued by Clearing and Forwarding agents / Freight Forwarders acting as Carrier Agents/Carriers are not acceptable.
- vii) Transport documents or Bill of Lading / Airway bill to indicate date on which goods loaded on board the vessel / flight no and date.
- viii) LASH transport documents in case of sea shipments are not acceptable.
- ix) Transport documents showing any charges additional to freight charges such as cost of disbursement related to loading, unloading or similar operations are not acceptable



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x) Documents must be presented for negotiation within 21 days of each shipment. (Note: Period may vary based on importer's requirement and mode of transport and transit time from the exporting country).

xi) Insurance is required to be issued irrespective of percentage, with the following:

xii) All documents required in English only.

xiii) Goods to be shipped by seaworthy vessel and a certificate to that effect as per Lloyds or equivalent classification society from Steamship Company or their agent if it is a member of the Conference Line to accompany

'Insurance Policy / Certificate dated not later than B/L unto order and blank endorsed for 110% over invoice value covering, Institute Cargo Clause (A), Institute War Clause (Cargo), Institute Strikes Clause (Cargo) and Warehouse to Warehouse Clauses with claims payable in India irrespective of percentage. Insurance also to cover the age of the vessel.'

xiv) A certificate of inspection by well known international inspection agencies to accompany documents, wherever required

xv) A discrepancy fee clause of US\$ 50 as per the following :

'Without prejudice to our right to refuse to take up the documents presented which are not in compliance with the terms and conditions of this L/C, discrepancy fee of US\$50 will be deducted from the proceeds of any drawing if documents are presented with discrepancies and same are accepted by us. Notwithstanding any instructions to the contrary, this charge shall be to the beneficiary's account'.

Branch Head / Chief Managers are permitted to delete those additional clauses which are not mandatory from Exchange control / Trade Control / FEDAI point of view. In such cases following procedure is to be adopted.

i) Request to delete / change / add any clause is to be considered after assessing the additional credit risk.





- ii) Branch to satisfy itself about credit worthiness / capability of the customer to honour the documents without any reserve, on first presentation.
- iii) Genuine need for such deletion / change / addition to L/C clauses to be ascertained
- iv) Branch to explore the possibility of substitute cover for additional credit risk exposure.

### **UCP POINTS TO BE REMEMBERED**

**The following important provisions of UCP are to be borne in mind while opening Import LC :**

- A credit which does not state whether it is 'REVOCABLE' or 'IRREVOCABLE' will be deemed as an 'IRREVOCABLE' credit (Art.3 of UCP 600)
- If a LC or an amendment is issued by an authenticated transmission which does not contain words 'FULL DETAILS TO FOLLOW' or similar such phrase or does not state that the mail confirmation is to be operative LC or amendment, then the transmission will be operative LC or amendment. (Art. 11 a & b)
- Once documents under LC are presented to an issuing branch it must scrutinise them immediately on receipt of the documents and inform the beneficiary or the nominated bank of the discrepancies in the documents and state whether the documents are refused and held at its disposal or are being returned, not later than the close of the Five banking day following the day of the receipt of the documents. In the event of failure, issuing branch will not be able to reject the documents. Even if negotiating bank has pointed out discrepancies, the LC opening branch should separately scrutinise the documents themselves (Art.14).
- If LC contains words like 'FIRST CLASS', 'WELL KNOWN', 'QUALIFIED', 'INDEPENDENT', 'OFFICIAL', 'COMPETENT', or 'LOCAL' used to describe the issuer of a document, allow any issuer except the beneficiary



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to issue the document (Art.3). A bank shall treat as an original any document bearing an apparently original signature, mark, stamp or label of the issuer of the document, unless the document itself indicates that it is not an original (Art.17b). A document may be signed by handwriting, by facsimile signature, by perforated signature, by stamp, by symbol or by any other mechanical or electronic method of authentication.

□ If a LC calls for additional documents (other than commercial invoice, insurance and transport document), without indicating its data content or name of the issuer, branches can accept documents as presented provided they are not inconsistent with other documents (Article 14f)

□ Branches can accept documents bearing dates of issuance, prior to that of the LC, provided LC does not specifically prohibit the same. But such documents have to be presented within the time limits set in the LC. If no such presentation time is laid down in the LC, branches will not accept the documents presented 21 days after date of shipment (Article 14i).

□ Unless specifically stipulated in the LC, branches will accept a transport document which does not indicate that the goods are loaded or will be loaded on deck. However, branches will accept transport documents containing a provision stating that the goods may be carried on deck provided it does not specifically state that they are or will be loaded on deck (Art.26a).

□ Transshipment means unloading and reloading from one vessel to another vessel during the course of ocean carriage from the port of loading to port of discharge. If transshipment is not prohibited by the LC, the branches can accept a transport document indicating that the goods will be transhipped provided the entire carriage is covered by the same transport document. (Art 20b). Even if the LC prohibits transshipment, branches can still accept transport documents of the following type:



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- i) A transport document which contains a printed clause stating that the carrier has right to tranship the goods.
  - ii) Where the LC allows combined or multimodal transport and the transport document indicates that the goods will or may be transhipped, provided the entire carriage is covered by the same CTD/MTD.
  - iii) Transport document (bill of lading) which indicates that transhipment will take place as long as the goods are shipped in contained(s) trailer(s), 'LASH' barge(s) provided that the entire ocean carriage is covered by one and the same bill of lading.
  - iv) An air transport document indicating that transhipment will or may take place provided that the entire carriage is covered by one and the same AWB.
- 
- A clean transport document is one which does not bear any clause or notation expressly declaring a defective nature of goods or its packaging. The word 'clean' need not appear on a transport document, even if a credit has a requirement for that transport document to be 'clean on board' (Art.27)
  - Branches should not accept claused / unclean transport document, unless LC permits acceptance of such transport documents
  - Unless the contrary is provided for in the LC, branches (a) should not accept insurance cover note issued by brokers (b) Insurance documents should be in the currency of the LC (Article 28 c/f(i)).
  - The value of the insurance documents should normally be as stated in the LC. If LC is silent, the minimum amount of insurance cover should be the CIF or CIP value of the goods as the case may be plus 10%, if CIF or CIP value can be determined from the documents. Otherwise, branches will accept insurance cover for 110% of the amount for which payment, acceptance or negotiation is requested under the LC or 110% of the gross amount of the invoice, whichever is the greater (Art.28.f.ii).



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□ If the LC states 'Insurance against all risks' branches can accept an insurance document containing any 'all risks' notation or clause, whether or not bearing the heading 'all risks', without responsibility for any risks stated to be excluded (Art.28h).

□ Unless specifically prohibited, the negotiating bank can accept commercial invoices issued for amounts in excess of the amounts permitted by the LC provided, it has not effected payment for an amount in excess of that permitted by the LC (Art.18 b.)

□ Words 'about', 'approximately' or similar expressions used with reference to credit amount, quantity or unit price would be taken to mean as allowing for a 10% variation (+ or -)for that particular aspect only (Art.30a.)

□ If the LC does not stipulate unit price but stipulates that quantity of goods stated therein should not be exceeded or reduced, shipment of exact quantity of goods stated therein should take place (e.g. 100 MT of sugar). If no such clause is there in the LC, a tolerance of 5% more or 5% less is permissible, provided total drawings under the LC does not exceed the LC value. This tolerance is not available if the quantity of goods is expressed in terms of specific number of packing units or individual items (e.g. 100 MT of sugar packed in 1000 bags weighing 100 kgs each) (Art.30b).

□ If the LC which prohibits partial shipment, states otherwise tolerance of 5% less in the amount of drawings is permissible, provided : a) If LC mentions quantity of goods, such quantity has been shipped and

b) If LC states unit price, such unit price is not reduced. If words like about, circa, etc. are mentioned, this provision does not apply. (Art.30 c)

(Art.29.c. covers the situation where a credit is issued on a CIF basis but the amounts of freight and insurance quoted by the beneficiary are invariably estimates. If the credit details the value of goods and freight / insurance cost separately it can be seen from the documents presented that the full goods have been shipped and that any discrepancy is due to the initial overestimation of freight and insurance)



- Unless, the LC specifically stipulates otherwise, partial shipments and/or partial drawings are allowed (Art.31 a.)
- Banks do not accept responsibility for interruption in business due to acts of god, riots, civil commotions, wars, strike, lockout or any other reason beyond their control. If the LC expires during such interruptions, branches should not pay, accept, negotiate, incur deferred payment undertaking under such expired LCs (Art.36).
- If the expiry date of a LC or the last day for presentation of documents reckoned from the date of issuance of shipping documents falls on a day on which the nominated bank is closed for business for reasons other than those given in Article 36 of UCP (Force Majeure), the date gets extended to the first following day on which such bank is open (Art.29a). But, the shipment date does not get extended for the above reasons.
- When the LC uses expressions such as 'PROMPT', 'IMMEDIATE', 'AS SOON AS POSSIBLE', and the like, the branches should disregard them. (Art.3)
- As per Art. 3 of UCP 600, in documentary credit operations, date terminology will be understood or construed as under :
- Words 'TO', 'UNTIL', 'TILL', 'FROM', and 'between' or words of similar expression referring to shipment will mean to include the date specified. Unless the credit specifically provides that 'FROM' is considered to include the date mentioned, therefore the words 'FROM' or 'AFTER' have the same effect.
- Word 'AFTER', will exclude the date mentioned.
- 'FIRST HALF' of the month will mean from the 1<sup>st</sup> to the 15<sup>th</sup> of the month and second half will mean 16<sup>th</sup> to last day of the month (both dates inclusive)
- 'BEGINNING' 'MIDDLE' or 'END' of a month will mean from the 1<sup>st</sup> to the 10<sup>th</sup> day 11<sup>th</sup> to 20<sup>th</sup> and 21<sup>st</sup> to last day of the month (both dates inclusive).
- When a credit does not specifically say as 'Transferable' it is deemed as non- transferable (Art.38.b).



Importer should make full payment in advance for the goods to be exported in advance

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Goods are dispatched directly to the buyer without any payment

Advance payment

		Open account
3	Full form of UCP.	Uniform Customs and Practices
4	How many countries adopted UCP.	175
5	It is a ___ credit which is available for payment at sight basis beside presentation of necessary documents to the issuing bank or nominated bank.	Payment
6	It contains open invitation to bank to negotiate documents In?	Open credit
7	In ___ credit it calls for an Usance bill of exchange for a specified period.	Acceptance credit
8	In ___ it is an undertaking by the issuing bank to arrange for payment on respective due date in accordance with the credit. It is an extended payment credit.	Deferred payment credit
9	___ credit can be either amended or cancelled by issuing bank without prior notice to beneficiary(seller) at any time .	Revocable credit
10	This L/C cannot be cancelled or modified without all parties being agreed upon is called?	Irrevocable credit
11	Alteration and cancellation of stipulations is called ___ to credit.	amendment
12	It is a special type of L/C in which another bank apart from the issuing bank has added the guarantee is?	Confirmed credit
13	When advising bank does not add its confirmation to beneficiary it remains ___ credit.	unconfirmed
14	___ payment will be applicable if complying documents have been presented to the nominated bank.	With recourse
15	___ payment will be applicable if complying documents have been presented to the confirming bank.	Without recourse
16	In ___ L/C there is fixed period and amount.	Fixed
17	In ___ L/C the limit is renewed automatically for the same amount and period, once it is exhausted whether advice is received or not.	revolving
18	___ letters of credit are actually made up of two distinct LoCs, one issued by the buyer's bank to the intermediary and the other issued by the intermediary's bank to the seller.	Back to back
19	A ___ L\C contains a clause printed in red, authorizing the negotiating bank to grant advances to the exporter for the purchase and processing, packing and arranging for movement of goods up to the port for shipment.	Red clause
20	___ clause credit is an extension of the red clause credit which permits pre-shipment advances and covers storage cost.	Green



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21	A ____ letter of credit is a legal document in which bank guarantees exporter to pay money.	Standby
22	Red & Green clause credits are extensively being used in Australian wool trade .	True
23	Green clause credit is an extension of the red clause credit which permits pre-shipment advances and covers storage cost.	True

Unless otherwise specified, bank charges for transfer of LC are payable by the first beneficiary. The transferring bank is under no obligation to effect the transfer until such charges are paid (Art.38.c).



## ECONOMIC EXPOSURE

1. How would you define economic exposure to exchange risk?

Answer: Economic exposure can be defined as the possibility that the firm's cash flows and thus its market value may be affected by the unexpected exchange rate changes.

2. Explain the following statement: "Exposure is the regression coefficient".

Answer: Exposure to currency risk can be appropriately measured by the sensitivity of the firm's future cash flows and the market value to random changes in exchange rates. Statistically, this sensitivity can be estimated by the regression coefficient. Thus, exposure can be said to be the regression coefficient.

*$P = a + b \times S + e$  is a measure of economic exposure.*

3. Suppose that your company has an equity position in a French firm. Discuss the condition under which the dollar/franc exchange rate uncertainty does not constitute exchange exposure for your company.

Answer: Mere changes in exchange rates do not necessarily constitute currency exposure. If the French franc value of the equity moves in the opposite direction as much as the dollar value of the franc changes, then the dollar value of the equity position will be insensitive to exchange rate movements. As a result, your company will not be exposed to currency risk.

4. Explain the competitive and conversion effects of exchange rate changes on the firm's operating cash flow.

Answer: The competitive effect: exchange rate changes may affect operating cash flows by altering the firm's competitive position.

The conversion effect: A given operating cash flows in terms of a foreign currency will be converted into higher or lower dollar (home currency) amounts as the exchange rate changes.





5. Discuss the determinants of operating exposure.

Answer: The main determinants of a firm's operating exposure are (1) the structure of the markets in which the firm sources its inputs, such as labor and materials, and sells its products, and (2) the firm's ability to mitigate the effect of exchange rate changes by adjusting its markets, product mix, and sourcing.

6. Discuss the implications of purchasing power parity for operating exposure.

Answer: If the exchange rate changes are matched by the inflation rate differential between countries, firms' competitive positions will not be altered by exchange rate changes. Firms are not subject to operating exposure.

7. General Motors exports cars to Spain but the strong dollar against the peseta hurts sales of GM cars in Spain. In the Spanish market, GM faces competition from the Italian and French car makers, such as Fiat and Renault, whose currencies remain stable relative to the peseta. What kind of measures would you recommend so that GM can maintain its market share in Spain.

Answer: Possible measures that GM can take include: (1) diversify the market; try to market the cars not just in Spain and other European countries but also in, say, Asia; (2) locate production facilities in Spain and source inputs locally; (3) locate production facilities, say, in Mexico where production costs are low and export to Spain from Mexico.

8. What are the advantages and disadvantages of financial hedging of the firm's operating exposure vis-a-vis operational hedges (such as relocating manufacturing site)?

Answer: Financial hedging can be implemented quickly with relatively low costs, but it is difficult to hedge against long-term, real exposure with financial contracts. On the other hand, operational hedges are costly, time-consuming, and not easily reversible.



9. Discuss the advantages and disadvantages of maintaining multiple manufacturing sites as a hedge against exchange rate exposure.

Answer: To establish multiple manufacturing sites can be effective in managing exchange risk exposure, but it can be costly because the firm may not be able to take advantage of the economy of scale.

10. Evaluate the following statement: "A firm can reduce its currency exposure by diversifying across different business lines".

Answer: Conglomerate expansion may be too costly as a means of hedging exchange risk exposure. Investment in a different line of business must be made based on its own merit.

11. The exchange rate uncertainty may not necessarily mean that firms face exchange risk exposure. Explain why this may be the case.

Answer: A firm can have a natural hedging position due to, for example, diversified markets, flexible sourcing capabilities, etc. In addition, to the extent that the PPP holds, nominal exchange rate changes do not influence firms' competitive positions. Under these circumstances, firms do not need to worry about exchange risk exposure.

## **PROBLEMS**

1. Suppose that you hold a piece of land in the City of London that you may want to sell in one year. As a U.S. resident, we are concerned with the dollar value of the land. Assume that, if the British economy booms in the future, the land will be worth £2,000 and one British pound will be worth \$1.40. If the British economy slows down, on the other hand, the land will be worth less, i.e., £1,500, but the pound will be stronger, i.e., \$1.50/£. You feel that the British economy will experience a boom with a 60% probability and a slow-down with a 40% probability.



- (a) Estimate your exposure b to the exchange risk.
- (b) Compute the variance of the dollar value of your property that is attributable to the exchange rate uncertainty.
- (c) Discuss how you can hedge your exchange risk exposure and also examine the consequences of hedging.

Solution: (a) Let us compute the necessary parameter values:

$$E(P) = (.6)(2800) + (.4)(2250) = 1680 + 900 = \$2,580$$

$$E(S) = (.6)(1.40) + (.4)(1.5) = 0.84 + 0.60 = \$1.44$$

$$\text{Var}(S) = (.6)(1.40 - 1.44)^2 + (.4)(1.50 - 1.44)^2$$

$$= .00096 + .00144 = .0024.$$

$$\text{Cov}(P, S) = (.6)(2800 - 2580)(1.4 - 1.44) + (.4)(2250 - 2580)(1.5 - 1.44)$$

$$= -5.28 - 7.92 = -13.20$$

$$b = \text{Cov}(P, S) / \text{Var}(S) = -13.20 / .0024 = -\$5,500.$$

You have a negative exposure! As the pound gets stronger (weaker) against the dollar, the dollar value of your British holding goes down (up).

$$(b) b^2 \text{Var}(S) = (-5500)^2 (.0024) = 72,600 (\$)^2$$

(c) Buy £5,500 forward. By doing so, you can eliminate the volatility of the dollar value of your British asset that is due to the exchange rate volatility.

2. A U.S. firm holds an asset in France and faces the following scenario:

			State 3	State 4
State 1	State 2			
Probability	25%	25%	25%	25%
Spot rate	\$1.20/€	\$1.10/€	\$1.00/€	\$0.90/€
P*	€1500	€1400	€1300	€1200



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P	\$1,800	\$1,540	\$1,300	\$1,080
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In the above table,  $P^*$  is the euro price of the asset held by the U.S. firm and P is the dollar price of the asset.

- Compute the exchange exposure faced by the U.S. firm.
- What is the variance of the dollar price of this asset if the U.S. firm remains unhedged against this exposure?
- If the U.S. firm hedges against this exposure using the forward contract, what is the variance of the dollar value of the hedged position?

Solution: (a)

$$E(S) = .25(1.20 + 1.10 + 1.00 + 0.90) = \$1.05/\text{€}$$

$$E(P) = .25(1,800 + 1,540 + 1,300 + 1,080) = \$1,430$$

$$\begin{aligned} \text{Var}(S) &= .25[(1.20 - 1.05)^2 + (1.10 - 1.05)^2 + (1.00 - 1.05)^2 + (0.90 - 1.05)^2] \\ &= .0125 \end{aligned}$$

$$\begin{aligned} \text{Cov}(P, S) &= .25[(1,800 - 1,430)(1.20 - 1.05) + (1,540 - 1,430)(1.10 - 1.05) \\ &\quad + (1,300 - 1,430)(1.00 - 1.05) + (1,080 - 1,430)(0.90 - 1.05)] \\ &= 30 \end{aligned}$$

$$b = \text{Cov}(P, S) / \text{Var}(S) = 30 / 0.0125 = \text{€}2,400.$$

$$\begin{aligned} \text{(b) Var}(P) &= .25[(1,800 - 1,430)^2 + (1,540 - 1,430)^2 + (1,300 - 1,430)^2 + (1,080 - 1,430)^2] \\ &= 72,100(\$)^2. \end{aligned}$$

$$\text{(c) Var}(P) - b^2 \text{Var}(S) = 72,100 - (2,400)^2(0.0125) = 100(\$)^2.$$

This means that most of the volatility of the dollar value of the French asset can be removed by hedging exchange risk. The hedging can be achieved by selling €2,400 forward.



**ONE WORD SUBSTITUTION**

SR.NO	LINE NO	QUESTION	ANSWER
1	1-3	_____exposure can be defined as the extent to which the value of the firm would be affected by <i>unanticipated</i> changes in exchange rates.	Economic
2	4-6	$P = a + b \times S + e$ is a measure of economic exposure.	True
3	7-8	The exposure coefficient is denoted by?	b
4	13-15	Difficulties and increased costs of shipping is?	Competitive effect
5	16-17	Lower dollar prices of imports due to foreign currency exchange rate depreciation.	Conversion effect
6	19-21	When the domestic currency is strong, eroding the competitive position of the firm, it can choose to locate production facility in a foreign country where cost are _____factors of production.	low
7	24-26	Selling in multiple markets to take advantage of economies of scale is?	Diversification of market
8	27	Financial Hedging is distinct from operational hedging.	True
9	33-34	_____Hedging involves use of derivative securities such as currency swaps, futures, forwards, currency, options.	Financial
10	38-39	The goal is to stabilize the firm's cash flows in the near term.	True



## TRANSACTION EXPOSURE

### **QUESTIONS**

1. How would you define transaction exposure? How is it different from economic exposure?

Answer: Transaction exposure is the sensitivity of realized domestic currency values of the firm's contractual cash flows denominated in foreign currencies to unexpected changes in exchange rates. Unlike economic exposure, transaction exposure is well-defined and short-term.

2. Discuss and compare hedging transaction exposure using the forward contract vs. money market instruments.

When do the alternative hedging approaches produce the same result?

Answer: Hedging transaction exposure by a forward contract is achieved by selling or buying foreign currency receivables or payables forward. On the other hand, money market hedge is achieved by borrowing or lending the present value of foreign currency receivables or payables, thereby creating offsetting foreign currency positions. If the interest rate parity is holding, the two hedging methods are equivalent.

3. Discuss and compare the costs of hedging via the forward contract and the options contract.

Answer: There is no up-front cost of hedging by forward contracts. In the case of options hedging, however, hedgers should pay the premiums for the contracts up-front. The cost of forward hedging, however, may be realized ex post when the hedger regrets his/her hedging decision.

4. What are the advantages of a currency options contract as a hedging tool compared with the forward contract?

Answer: The main advantage of using options contracts for hedging is that the hedger can decide whether to exercise options upon observing the realized future exchange rate. Options thus provide a



hedge against ex post regret that forward hedger might have to suffer. Hedgers can only eliminate the downside risk while retaining the upside potential.

5. Suppose your company has purchased a put option on the euro to manage exchange exposure associated with an account receivable denominated in that currency. In this case, your company can be said to have an 'insurance' policy on its receivable. Explain in what sense this is so.

Answer: Your company in this case knows in advance that it will receive a certain minimum dollar amount no matter what might happen to the \$/€ exchange rate. Furthermore, if the euro appreciates, your company will benefit from the rising euro.

6. Recent surveys of corporate exchange risk management practices indicate that many U.S. firms simply do not hedge. How would you explain this result?

Answer: There can be many possible reasons for this. First, many firms may feel that they are not really exposed to exchange risk due to product diversification, diversified markets for their products, etc. Second, firms may be using self-insurance against exchange risk. Third, firms may feel that shareholders can diversify exchange risk themselves, rendering corporate risk management unnecessary.

7. Should a firm hedge? Why or why not?

Answer: In a perfect capital market, firms may not need to hedge exchange risk. But firms can add to their value by hedging if markets are imperfect. First, if management knows about the firm's exposure better than shareholders, the firm, not its shareholders, should hedge. Second, firms may be able to hedge at a lower cost. Third, if default costs are significant, corporate hedging can be justifiable because it reduces the probability of default. Fourth, if the firm faces progressive taxes, it can reduce tax obligations by hedging which stabilizes corporate earnings.



8. Explain contingent exposure and discuss the advantages of using currency options to manage this type of currency exposure.

Answer: Companies may encounter a situation where they may or may not face currency exposure. In this situation, companies need options, not obligations, to buy or sell a given amount of foreign exchange they may or may not receive or have to pay. If companies either hedge using forward contracts or do not hedge at all, they may face definite currency exposure.

9. Explain cross-hedging and discuss the factors determining its effectiveness.

Answer: Cross-hedging involves hedging a position in one asset by taking a position in another asset. The effectiveness of cross-hedging would depend on the strength and stability of the relationship between the two assets.

### **PROBLEMS**

1. Cray Research sold a super computer to the Max Planck Institute in Germany on credit and invoiced €10 million payable in six months. Currently, the six-month forward exchange rate is \$1.10/€ and the foreign exchange advisor for Cray Research predicts that the spot rate is likely to be \$1.05/€ in six months.

(a) What is the expected gain/loss from the forward hedging?

(b) If you were the financial manager of Cray Research, would you recommend hedging this euro receivable?

Why or why not?

(c) Suppose the foreign exchange advisor predicts that the future spot rate will be the same as the forward exchange rate quoted today. Would you recommend hedging in this case? Why or why not?

Solution: (a) Expected gain(\$) $= 10,000,000(1.10 - 1.05)$

$= 10,000,000(.05)$

$= \$500,000.$

(b) I would recommend hedging because Cray Research can increase the expected dollar receipt by \$500,000 and also eliminate the exchange risk.





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(c) Since I eliminate risk without sacrificing dollar receipt, I still would recommend hedging.



## ONE WORD SUBSTITUTION

1	A ___ equity account named cumulative translation adjustment is used to make the balance sheet balance.	Plug
2	Full form of FASB	Financial Accounting Standard Board
3	The currency in which the business is conducted?	Functional currency
4	The currency in which the MNC prepares its consolidated financial statements is called?	Reporting currency
5	The effect that unanticipated changes in exchange rates has on the firm's consolidated financial statements is called?	Translation exposure
6	___ eliminates the mismatch between net assets and net liabilities denominated in the same currency.	Balance sheet hedge
7	A ___ hedge to control translation exposure really involves speculation about foreign exchange rate changes.	derivative
8	The underlying principle is that assets and liabilities should be translated based on how they are carried on the firm's books comes which method?	Temporal method



## ☼ TRANSLATION EXPOSURE ☼

### QUESTIONS

1. Explain the difference in the translation process between the monetary/nonmonetary method and the temporal method.

- Under the monetary/nonmonetary method, all monetary balance sheet accounts of a foreign subsidiary are translated at the current exchange rate.
- Other balance sheet accounts are translated at the historical rate exchange rate in effect when the account was first recorded.
- Under the temporal method, monetary accounts are translated at the current exchange rate.
- Other balance sheet accounts are also translated at the current rate, if they are carried on the books at current value.
- If they are carried at historical value, they are translated at the rate in effect on the date the item was put on the books.
- Since fixed assets and inventory are usually carried at historical costs, the temporal method and the monetary/nonmonetary method will typically provide the same translation.

2. How are translation gains and losses handled differently according to the current rate method in comparison to the other three methods, that is, the current/noncurrent method, the monetary/nonmonetary method, and the temporal method?

- Under the current rate method, translation gains and losses are handled only as an adjustment to net worth through an equity account named the “cumulative translation adjustment” account.



- Nothing passes through the income statement.
- The other three translation methods pass foreign exchange gains or losses through the income statement before they enter on to the balance sheet through the accumulated retained earnings account.

3. Identify some instances under FASB 52 when a foreign entity's functional currency would be the same as the parent firm's currency.

Three examples under FASB 52, where the foreign entity's functional currency will be the same as the parent firm's currency, are:

- the foreign entity's cash flows directly affect the parent's cash flows and are readily available for remittance to the parent firm;
- the sales prices for the foreign entity's products are responsive on a short-term basis to exchange rate changes, where sales prices are determined through worldwide competition; and,
- the sales market is primarily located in the parent's country or sales contracts are denominated in the parent's currency.

4. Describe the remeasurement and translation process under FASB 52 of translating into the reporting currency the books of a wholly owned affiliate that keeps its books in the local currency of the country in which it operates, which is different than its functional currency.

- For a foreign entity that keeps its books in its local currency, which is different from its functional currency, the translation process according to FASB 52 is to: first, remeasure the financial reports from the local currency into the functional currency using the temporal method of translation, and



second, translate from the functional currency into the reporting currency using the current rate method of translation.

5. It is, generally, not possible to completely eliminate both translation exposure and transaction exposure. In some cases, the elimination of one exposure will also eliminate the other. But in other cases, the elimination of one exposure actually creates the other. Discuss which exposure might be viewed as the most important to effectively manage, if a conflict between controlling both arises. Also, discuss and critique the common methods for controlling translation exposure.

- Since it is, generally, not possible to completely eliminate both transaction and translation exposure, we recommend that transaction exposure be given first priority since it involves real cash flows.
- The translation process, on-the-other hand, has no direct effect on reporting currency cash flows, and will only have a realizable effect on net investment upon the sale or liquidation of the assets.

There are two common methods for controlling translation exposure: a balance sheet hedge and a derivatives hedge. The balance sheet hedge involves equating the amount of exposed assets in an exposure currency with the exposed liabilities in that currency, so the net exposure is zero. Thus when an exposure currency exchange rate changes versus the reporting currency, the change in assets will offset the change in liabilities. To create a balance sheet hedge, once transaction exposure has been controlled, often means creating new transaction exposure. This is not wise since real cash flow losses can result. A derivatives hedge is not really a hedge, but rather a speculative position, since the size of the “hedge” is based on the future expected spot rate of exchange for the exposure currency with the reporting currency. If the actual spot rate differs from the expected rate, the “hedge” may result in the loss of real cash flows.



## **PROBLEM**

The problem assumes that Canadian dollar depreciates from CD1.25/\$1.00 to CD1.30/\$1.00 and that the Argentine austral depreciates from A1.00/\$1.00 to A1.03/\$1.00. To determine the reporting currency imbalance in translated value caused by these exchange rate changes, we can use the following formula:

= Reporting Currency Imbalance. Net Exposure Currency i S (i / reporting) - Net Exposure Currency i S (i / reporting) new old

From the translation exposure report we can determine that the depreciation in the Canadian dollar will cause a reporting currency imbalance.  $CD4,200,000 \text{ CD}1.30 / \$1.00 - CD4,200,000 \text{ CD}1.25 / \$1.00 = -\$129,231$

Similarly, the depreciation in the Argentine austral will cause a reporting currency imbalance.  $A120,000 \text{ A}1.03 / \$1.00 - A120,000 \text{ A}1.00 / \$1.00 = -\$3,495$

In total, the depreciation of the Canadian dollar and the Argentine austral will cause a reporting currency imbalance in translated value equal to  $-\$129,231 - \$3,495 = -\$132,726$ .



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SR.NO	LINE NO	QUESTION	ANSWER
1	10-12	A ___ equity account named cumulative translation adjustment is used to make the balance sheet balance.	plug
2	14	Full form of FASB	Financial Accounting Standard Board
3	15-17	The currency in which the business is conducted?	Functional currency
4	15-17	The currency in which the MNC prepares its consolidated financial statements is called?	Reporting currency
5	1-3	The effect that unanticipated changes in exchange rates has on the firm's consolidated financial statements is called?	Translation exposure
6	18-21	___ eliminates the mismatch between net assets and net liabilities denominated in the same currency.	Balance sheet hedge
7	18-21	A ___ hedge to control translation exposure really involves speculation about foreign exchange rate changes.	derivative