

CAIIB CAPSULE

Paper-2 BFM

MODULE

A

INTERNATIONAL BANKING

MODULE

B

RISK MANAGEMENT

MODULE

C

TREASURY MANAGEMENT

MODULE

D

BALANCE SHEET MANAGEMENT



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CAIIB Paper 2 (BFM) Capsule PDF

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CAIIB Paper 2 (BFM) Module A: International Banking

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CAIIB Paper 2 (BFM) Module A Unit 1 Exchange Rates and Forex Business

Foreign Exchange - Definition and Markets

Foreign Exchange Management Act (FEMA), 1999, (Section 2) defines foreign exchange as:



Foreign Exchange means foreign currency, and includes:

- All deposits, credits and balances payable in foreign currency, and any drafts, traveller's cheques, letters of credit and bills of exchange, expressed or drawn in Indian currency and payable in any foreign currency,
- Any instrument payable at the option of the drawee or holder, thereof or any other party thereto, either in Indian currency or in foreign currency, or partly in one and partly in the other." Thus, broadly speaking, foreign exchange is all claims payable abroad, whether consisting of funds held in foreign currency with banks abroad or bills, checks payable abroad.

Foreign Exchange Markets

Foreign exchange markets comprise a large spectrum of market participants, which include individuals, business entities, commercial and investment banks, central banks, cross border investors, arbitrageurs and speculators across the globe, who buy or sell currencies for their needs.

The world currency market is a very large market, with a large number of participants.

Major participants of FOREX markets are:

- **Central Banks** – managing their forex reserves and using currency markets strives to reduce the volatility and smoothen out the value of their home currency.
- **Commercial Banks** - offering exchange of currencies to their big and retail clients and hedging and investing their own assets and liabilities, as also on behalf of their clients, and also speculate on the exchange rate movements in the markets.
- **Investment Funds/Banks** - moving funds from one country to another using exchange markets as a vehicle for investments as also hedging their investments in various countries/currencies.
- **FOREX Brokers** - acting as middleman, between other participants, and at times taking positions on their books.
- **Corporations** – moving funds between different countries and currencies for investment or trade transactions or even speculation in currency markets.

Thus, the characteristics of foreign exchange market can be listed as under:

- A 24-hour market
- An over the counter market as well exchange driven market



- A global market with no barriers/no specific location
- A market that supports large capital and trade flows
- Highly liquid markets
- High fluctuations in currency rates. (every seconds)
- Settlements affected by time zone factor
- Markets affected by governmental policies and controls

Factors Determining Exchange Rates

The quotations in the FOREX markets depend on the delivery type of the foreign currencies, i.e., exchange of streams of the two currencies being dealt with. The spot rates, being the base quotes in the FOREX markets are more dynamic and are effected by varied reasons, a few of which are fundamental and other technical.

The main factors, which influence movement of exchange rates, can be summarized as under:

Fundamental Reasons

These include all those causes or events, which affect the basic economic and monetary policies of the concerned government. The causes normally affect the long-term exchange rates, while in the short-run, many of these are found ineffective.

In a long run, exchange rates of all currencies are linked to fundamentals, as given under:

- **Balance of payment** - generally a surplus lead to a stronger home currency, while a deficit weakens the same.
- **Economic growth rate** – a high growth leads to a rise in imports and a fall in the value of home currency, and vice versa.
- **Fiscal policy** – an expansionary policy, e.g., lower taxes can lead to a higher economic growth.
- **Monetary policy** – the way, a central bank attempts to influence and control interest and money supply can impact the value of currency of their country.
- **Interest rates** - high domestic interest rates tend to attract overseas capital, and thus the currency appreciates in the short term. In the longer term, however, high interest rates slow the economy down, thereby weakening the currency.



- **Political issues** - political stability is likely to lead the economic stability, and hence a steady currency, while political instability would have the opposite effect

Technical Reasons

- Government controls can lead to an unrealistic value of a currency, resulting in violent movement in exchange rates.
- Freedom or restriction on capital movement can affect exchange rates to a larger extent. This is a phenomenon, which was seen in Indonesia, Thailand, Philippines, Korea, etc.

Speculation

- Speculative forces can have a major effect on exchange rates. In an expectation that a currency will be devalued, the speculator will short sell the base currency (say \$) for buying it back cheaper at a later date.
- This very act can lead to movements in the market, as the expectation for devaluation grows extends to other market participants as well.

Exchange Rate Mechanism

Types and Calculation

- **Due to the vastness of the market, operating in different time zones, most of the FOREX deals are done on SPOT basis**, meaning thereby that the delivery of the funds takes place on the second working day following the date of deal/contract.
- The rate at which such deals are done is known as SPOT rates. Spot rates are the base rates for other FX rates. The date of delivery of funds on the date, on which the exchange of currencies actually takes place, is also referred to as "value date" or "settlement date". The delivery of FX deals can be settled in one or more of the following ways:

Ready or Cash

- **Settlement of funds takes place on the same day (date of deal)**, e.g., if the date of Ready/Cash deal is 3 October 2016 (Monday), settlement date will also be 3 October 2016.

Tom



- Settlement of funds takes place on the next working day of the date of deal, e.g., say 1st Nov 2021), e.g., Bank A bought USD 1,000,000 against INR from Bank B @ 74.9600 Value Tom i.e. 2nd Nov 2021.
- This means that the delivery of USD 1,000,000 by Bank B and the settlement of INR 7,49,60,000 by Bank A takes place on the next working day, i.e. 2nd Nov 2021. This is known as a Tom deal. If the settlement date of TOM deal, i.e. 2nd Nov 2021 is not a working day, settlement date would be 3rd November 2021 provided it is a working day for the markets where currency is to be settled). Intervening Saturdays and Sundays will also postpone the settlement date to next working day.

Spot

- Settlement of funds takes place on the second working day following the date of contract/deal, e.g., say 1st Nov 2021, e.g., Bank A, Mumbai bought USD 1,155,000 against EUR from Bank B, Frankfurt @ EUR/USD 1.1550 Value Spot i.e. 3rd Nov 2021.
- This means that the delivery of USD 1,155,000 by Bank B, Frankfurt and the settlement of EUR 1,000,000 by Bank A takes place on the spot date i.e. on the second working day following the date of the deal i.e. 3rd Nov 2021. This is known as a Spot deal. If the date of Spot deal is 1st November 2021, settlement date will be 3rd November 2021, presuming both markets in Mumbai and Frankfurt are working on 1st, 2nd and 3rd November 2021. If not, it will be the next working day in both the countries. Intervening Saturdays and Sundays will also postpone the settlement date to next working day.

Forward

- **Delivery of funds takes place on any day after Spot date**, e.g., if the date of forward deal is 3 October 2016 (Monday), for value settlement date 30 October 2016 or 30 November 2016, it is a forward deal.

Cross Rate

- When we deal in a market where rates for a particular currency pair are not directly available, the price for the said currency pair is then obtained indirectly with the help of cross rate mechanism. **This can be explained with the following example:**



- Suppose, we intend to get a quote for Euro/INR and no one is prepared to quote Euro/INR directly in the market. We can work out a Euro/INR quote through Euro/USD and USD/INR quotes.
- Euro/USD quote would be available in the international markets and USD/INR would be available in the domestic market. By crossing out USD in both the quotes, we can arrive at an effective Euro/ Rs. Quote
- This is the basis for working out cross rates. Cross rate mechanism is a possible solution for calculation of rates for currency pairs which are not actively traded in the market.
- For example, we need to quote GBP against INR, but in India, usually GBP is not quoted directly, as such we need to take rates for USD/INR and GBP/USD to compute GBP/INR rate.
- **If, USD/INR is 68.10/11, and GBP/USD is 1.2100/10, then, to GBP/INR rate, we need to cross (multiply) both the given rates, which would give us GBP/INR rate as Rs. 82.40/82.48.**
- Or say if USD/JPY is 116.50/60, the rate for Rupee/JPY would be Rs. 58.40/46 per 100 JPY (JPY being quoted per 100 units, due to their values).

Forward Margins –

- Premium and Discounts Forward rates are derived from spot rates, and are a function of the spot rates and the forward premium or discount of the currency being quoted.
- **Forward rate = Spot rate + Premium (or – Discount).**

Fixed vs. Floating Rates

- **The fixed exchange rate is the official rate set by the monetary authorities for currencies.** It is usually pegged to one or more currencies. **Under floating exchange rate, the value of the currency is decided by supply and demand factors for that particular currency.**
- In some cases, even fixed exchange rates are allowed to fluctuate between definite upper and lower bands, as fixed by the monetary authority of the country.

Bid and Offer Rates



- **The buying rates and selling rates are also referred to as bid and offer rates.** In a USD/INR quote, of 68.10/11, the quoting bank is bidding for USD at 68.10 and is offering to sell the USD at 68.11. On the other hand, in a GBP/USD rate 1.2100/10, the quoting bank is willing to buy GBP at 1.2100 and willing to sell at 1.2110

Exchange Arithmetic - Theoretical Overview

- **All foreign exchange calculations have to be worked out with extreme care and accuracy and the decimal point has also to be correctly placed.** Constant check is also required to minimize the risk of mistake, as the markets work on very thin margins. An error in one quote may erode earnings from several trades/transactions.

Chain Rule

- **It is used in attaining a comparison or ratio between two quantities linked together through another or other quantities and consists of a series of equations,** commencing with a statement of the problem in the form of a query and continuing the equation in the form of a chain so that each equation must start in terms of the same currency as that which concluded the previous equation.

Per Cent and Per Mille

- **A percentage (%) is a proportion per hundred,** e.g., 1% is one part in every hundred parts such as Rupee 1 per Rupees 100, while per mille means per thousand, e.g., 1 per mille is one part in every thousand, such as Rupee 1 per Rupees 1,000.

Value Date

- **This is the term used to define the date on which a payment of funds or an entry to an account becomes actually effective and/or subjected to interest,** if any. In the case of payments on Telegraphic Transfers (TT) the value date is usually the same in both centres

Arbitrage in Exchange

- Arbitrages consist of the simultaneous buying and selling of a commodity or currency in two or more markets to take advantage of temporary discrepancies in prices.



Foreign Exchange Dealing Room Operations

The FOREX dealing room operations comprise functions of a service branch to meet the requirements of customers of other branches/divisions to buy or sell foreign currency, manage foreign currency assets and/or liabilities, fund and manage NOSTRO accounts as also undertake proprietary trading in currencies. It acts as a separate profit centre for the bank/institution.

While conducting treasury management operations, relating to foreign exchange operations of the Bank, the treasurer has to ensure that the operations are in compliance with the:

- Internal Control Guidelines of the Reserve Bank of India
- FEDAI regulations
- Internal guidelines of the Bank.

Management and Control of a Dealing Room

- Reserve Bank of India, has advised that the Board of Directors of banks should frame an appropriate policy and fix suitable limits for its FOREX dealing functions.
- The management of dealing room operations should focus on risk associated with foreign exchange dealing room operations, which arise due to complex nature of foreign exchange markets and the volatile nature of exchange rate movements.
- The major risks associated with foreign exchange dealing operations, where the management needs to frame policies and keep a constant vigil, can be summarized as under.

Functions of Integrated Treasury

The broad functions of an Integrated Treasury are as follows:

- Meeting CRR and SLR requirements and having an optimum mix of investment portfolio.
- Liquidity and funds management – analysis of major cash flows, funding mix and yields expected in credit and investments.
- Asset liability management, growth rate of the balance sheet, pricing of assets and liabilities in accordance with the prescribed guidelines.



- Risk management – market risk associated with bank's assets & liabilities, credit risk on treasury products, operation risk on payments and settlements.
- Transfer pricing – bench mark rates to various business groups, ensuring that the funds are deployed optimally.
- Derivative products – developing of IRS and other derivative products to hedge bank's exposure and also selling such products to customers.
- Arbitrage – simultaneous buying and selling of same type of assets in two different markets in order to make risk less profits.
- Capital adequacy – focussing on quality of assets and return on investments and evaluating the efficiency of deployed funds.
- Minimizing the level of provision requirements due to build up of NPA.

Internal Control Guidelines of RBI

It is very important that the dealing room adheres to the internal control guidelines of RBI in the regular conduct of the dealing room operations of the Bank. The following are some of the important Internal Control Guidelines of RBI which needs to be put in place by Banks:

- The data processing systems used must be appropriated to the nature and volume of activities in order to ensure functional separation.
- Access rules for performing distinct functions should be defined in detail and drawn up for persons unconnected with the dealing activities.
- Confidentiality of data in the systems may be ensured in case of outsourcing of IT services to the external agencies.
- Global limits for Inter-Bank deals (both domestic & overseas) to be put in place consistent with the overall risk management processes.
- Adequacy of capital to undertake aggressive dealing activities bearing in mind the Bank's capital and earnings performance.
- Appropriate VAR models for quantifying the extent of market risk for a given level of confidence.
- Periodic review and validation of existing models to test the robustness of such models.
- Every dealer should be advised of the limits (including the stop loss limits) allocated and work within the limits.



- All deals done have to be within the corresponding limits fixed viz., the counter-party exposure limits, stop loss limits, country-wise exposure limits (in respect of foreign exchange dealings) and within the Net Overnight Open Position Limits (NOOPL), Individual GAP Limits (IGL), Aggregate GAP Limits (AGL), etc., as approved by the Bank's Board.
- Evaluation of foreign exchange profits & losses at the closing rates of every month as announced by FEDAI.

<i>Front Office</i>	<i>Mid Office</i>	<i>Back Office</i>
Fund Management Nostro Accounts	Market Risk	Confirmation of deals
Foreign Exchange Advisory Management	Liquidity Risk	Settlement of deals
ALM & Maturity Mismatches	Country Risk	Accounting of deals
Dealing in the Inter-Bank Market	ALCO Committee	Reconciliation
Trading in the Inter-Bank Market	Reporting to the Top Management	Audit facilitation & reporting
Compliance	Compliance	Compliance

RBI/FEDAI Guidelines

The Reserve BANK of India, being the central bank of the country and the custodian of nation's foreign exchange reserves, has prescribed guidelines for authorized dealers, permitted by it, to deal in foreign exchange and handle foreign currency transactions. FEMA 1999, also prescribes rules for persons, Corporates, etc., in handling foreign currencies, as also transactions denominated therein.

The Reserve Bank of India issues Authorized Dealers' (AD) licenses to banks and all-India financial institutions to undertake foreign exchange transactions in India. At present there are over 90 ADs, which include all public sector banks, foreign and a large number of private banks, a few all-India financial institutions and a few Scheduled cooperative banks.

The RBI also issues Money Changer licenses to a large number of established firms, companies, hotel, shops, etc., to deal in foreign currency notes, coins and traveller's cheques, to facilitate encashment foreign currency for foreign tourists. Entities authorized to buy and sell foreign currency notes, coins and traveller's cheques are



called Full Fledged Money Changers (FFMCs) while those authorized only to buy are called Restricted Money Changers (RMCs).

Categorization of Authorized Dealers: In the year 2006, the categorization of dealers authorized to deal in foreign exchange has been changed by the Reserve Bank of India. The entities so authorized are called as Authorized Persons, with category, denoting **their level of authority to undertake variety of transactions, as under:**

- **Authorized Dealer – Category I:** They can handle all current and capital account transactions according to RBI directions issued from time-to-time. Eg., Commercial banks, State and Urban Cooperative Banks
- **Authorized Dealer – Category II:** Entities that can deal in transaction of foreign exchange which are of non-trade nature. Eg., Upgraded FFMCs, Other cooperative banks, Regional Rural Banks.
- **Authorized Dealer – Category III:** Institutions that can deal with forex transactions which are incidental to financing of international trade related activities undertaken by these institutions, eg., Exim Bank, SIDBI.
- **Full Fledged Money Changer:** Purchase of foreign exchange and sale for private and business visits abroad. Eg., Other FFMCs, Dept of Post.
- **Foreign Exchange Operations,** undertaken without any boundaries or controls, can adversely affect the movement of exchange rates and the value of currency, besides profitability of the entity dealing in an undisciplined manner. Hence, RBI has prescribed broad guidelines with regard to foreign exchange operations in order to have regulated and disciplined market operations.
- RBI guidelines include those related to open positions, gaps, borrowing and lending in foreign currencies, interbank dealings in India and Overseas Markets, hedging of bank's own exposures as well as that of its resident and non-resident clients.

Foreign Exchange Dealers Association of India, (FEDAI), on the other hand, is a non-profit making body, formed in 1958 with the approval of Reserve Bank of India, consisting of Authorized dealers as members. FEDAI prescribes guidelines and rules for market operations, merchant rates, quotations, delivery dates, holidays, interest on defaults, etc. In terms of RBI directives, all authorized dealers are members of FEDAI and it is mandatory for them to follow the guidelines/directives issued by FEDAI.

A few of the major FEDAI guidelines/rules can be summarized as under:



- All export bills to be allowed standard transit period (NTP – normal transit period), as prescribed, for the purpose of allowing concessional interest rates and calculation of notional due dates.
- Export bills drawn in foreign currency, purchased/discounted/negotiated, must be crystallized in rupee liability, in case of delay in realization of export bills. The same would be done at TT selling rate. The prescription of crystallization of export bills on the 30th day from the due date/notional date, has since been relaxed. Authorized Dealer Banks should formulate their own policy for crystallization of foreign currency liability into Rupee liability. The policy in this regard should transparently available to the customers.
- Unpaid foreign currency import bills drawn under letters of credit shall be crystallized as per the stated policy of the Bank in this respect.
- All forward contracts must be for a definite amount and period with specific delivery dates.
- Option period can be specified by the customer, in case of forward contracts, but in any case, the delivery period under the contract shall not exceed beyond one month. All such contracts must state the start and end dates.
- Cancellation of forward contracts - All contracts, which have matured and have not been picked up, shall be automatically cancelled on the THIRD working day, after the maturity date.
- All cancellations shall be at bank's opposite TT rates, TT selling rate for purchase contracts and TT buying rate for sale contracts.
- In the event of delay in payment of interbank foreign currency funds, interest at 2% above the prime rate of the currency of the specified banks shall be paid by the defaulting bank.
- In the event of delay in payment of rupee settlement funds, interest for delayed period at 2% above the NSE MIBOR ruling on each day shall be paid.
- All currencies to be quoted as – per unit of foreign currency = INR, while JPY, Indonesian Rupiah & Kenyan Shilling are to be quoted as 100 units of foreign currency = INR.
- FEDAI also prescribes code of conduct for FOREX dealers, as also guidelines with regard to dealings with FOREX brokers.



Example 1

Inflow of USD 100,000.00 by TT for credit to your exporter's account, being advance payment for exports (credit received in NOSTRO statement received from New York correspondent). What rate you will take to quote to the customer, if the market is 68.09/11?

Answer

It will be purchase of USD from customer for which USD will have to be sold in the market. Say when USD/INR is being quoted as 68.09/11, meaning that market buys USD at INR 68.09 and sells at INR) 68.11. We shall have to quote rate to the customer on the basis of market buying rate, i.e. 68.09 less margin, as applicable, to arrive at the IT Buying Rate applicable for the customer transaction.

Example 2

Retirement of import bill for GBP 100,000.00 by TT Margin 0.20%, ignore cash discount/premium, GBP/ USD 1.2175/85, USD/INR 68.14/15. Compute Rate for Customer

Answer

For retirement of import bill in GBP, we need to buy GBP, to buy GBP we need to give USD and to get USD, we need to buy USD against Rupee, i.e. sell Rupee.

At the given rates, GBP can be bought at 1.2185 USD, while USD can be bought at 68.15.

The GBP/INR rate would be 83.0408 (1.2185×68.15), at which we can get GBP at market rates. Thus the interbank rate for the transaction can be taken as 83.0408.

Add Margin 0.20% 0.1660.

Rate would be $83.0408 + 0.1660 = 83.2068$ or say 83.2070 for effecting import payment.

(Bill Selling Rate).

Example 3

On 15 September, a customer requests for booking of a forward contract for export bill of USD 150,000.00, to be realized in the month of December.

Given that USD/INR spot is 68.45/50 and forward premium is as under:

October: 18/19 paise

November: 30/32 paise

December: 41/43 paise

Margin to be charged 0.05 paise per USD.



Answer

For calculating rate for forward purchase contract, we need to take forward premium for November, the one that the market would pay, i.e. 30 paise. Spot rate as 68.45, getting forward interbank rate as 68.75 and deduct 0.05 paise as margin to arrive at 68.70 the customer forward rate for delivery of export proceeds during December, full month at the option of the customer (Forward TT Buying Rate). Forward margin for the period prior to the start of the delivery period would be passed on, as the customer has an option to deliver currency on the first day itself, i.e. 1st December.

Management and control of a Dealing room

Reserve Bank of India, has advised that the Board of Directors of banks should frame an appropriate policy and fix suitable limits for its FOREX dealing operations.

The management of dealing room operations should focus on the risks associated with foreign exchange dealing room operations, which in turn arise from the complex nature of foreign exchange markets and the volatile nature of exchange rate movements.

The major risks associated with foreign exchange dealing operations, where the management needs to frame policies and keep a constant vigil, can be summarized as under:

- Operational Risk
- Exchange Risk
- Credit Risk
- Settlement risk
- Liquidity Risk
- Gap Risk/Interest Rate Risk
- Market Risk
- Interest rate risk
- Equity Price risk
- Currency risk
- Legal Risk
- Systemic Risk
- Country Risk
- Sovereign Risk

The following are some of the risk containment measures which need to be adhered to during the course of dealing room operations:

- Every dealer should be advised of the limits allocated to him/her and work within the limits.
- All deals done with counter-parties are to be within the corresponding limits.
- Overall position to be arrived at the end of the day and well within the NOOPL, AGL, IGL, as approved by the Bank's Board.



- Adequate monitoring of the mismatches in maturities, positions, etc. should be ensured.
- Evaluation of foreign exchange profits & losses should be carried out periodically.
- Reconciliation of balances in the RBI accounts, Nostro and Vostro accounts should be done periodically, say, at least once in a month.
- Debits/Credits in Mirror accounts, confirmation of balances should be obtained periodically from the Nostro correspondents and confirmation should be provided to the Banks maintaining Vostro (INR) accounts.

Derivative Products

Financial Management of the Multinational Enterprises (MNEs) and Multinational Corporations (MNCs) in the 21st Century has resulted in International trade volumes across the globe and prevalence of risk in all aspects of trade became prevalent. The development and growth of Financial Derivatives products has been one of the extraordinary and important features of the financial markets. Derivatives came into existence because of the prevalence of risk in every business and became an important tool in hedging such risks.

A derivative is a financial product whose value is derived from the value of another underlying asset or exposure viz., Commodity, Equity, Bond, Foreign Currency Position, etc., and includes Futures, Forward contracts, Option contracts, Swaps, etc. These instruments can be used for two very distinct objectives:

- **Speculation** – use of derivative instruments to take a position with the expectation of a profit,
- **Hedging** – use of derivative instruments to reduce the risks associated with the everyday management of corporate cash flows.

Foreign Currency Futures

- A Foreign Currency Futures Contract which is traded in an exchange is an alternative to a forward contract that calls for future delivery of a standard amount of foreign exchange at a fixed time, place and price.
- It is similar to Futures Contracts that exist for other products/commodities such as Cattle, Rubber, Metals, Pulses, Interest-bearing deposits, Gold, etc. The most important market for foreign currency futures is the International Monetary Market (IMM), a division of the Chicago Mercantile Exchange (CME).

Forward Contracts – Characteristics

- Agreement between the Bank and the customer agreeing on a price for a particular amount specified for delivery at a future date.
- Delivery either under Option basis or on a fixed date.
- Generally for periods upto one year and can extend beyond one year depending on the maturity of the underlying (LTFX contracts – Long-term forward contracts).



- Documentary evidence and genuineness of the underlying. Verification of the underlying and marking on the original documents.
- Maturity of the hedge should not exceed maturity of the underlying.
- Contracts should be in alignment with credit limits and due diligence is to be carried out.
- Contracts are to be utilized either prior to maturity or on maturity date. If not utilized on the maturity and it is cancelled, profits or losses are settled, as the case may be.
- If cancelled after maturity date, losses are recovered but profits will not be passed on.

Forward Contracts v/s Futures Contracts

- Forwards are of any size while Futures are standardized.
- Forwards are generally for maturities up to one year and beyond while futures are generally up to one year.
- Forwards are between Clients and Banks while futures are between clients and the Exchange.
- Prices in a forward contract are determined by bid/ask quotes while prices in futures determined through an outcry on the floor of the exchange or through Electronic trading platform.
- In forward contracts, there are no explicit collaterals while initial margins and on mark to market basis additional margins are needed in a futures contract.
- Forward contracts are delivered/ utilized or cancelled on due dates while settlement under futures take place through off-setting of positions or through physical delivery some times.
- Forward markets are open 24 hours as per the conveniences of the parties while futures markets function during traditional exchange hours.
- While in forward contracts, parties are in direct contact, the parties in future contracts are not known to each other, but deal through the exchange.
- There is no explicit commission earned under forward contracts and Bank earns through the bid/ ask spreads while under futures, a single commission concept is prevalent.

Options

- Option is a contract giving the purchaser the right but not the obligation to buy or sell a given amount of the security/stock/currency at a fixed price per unit for a specified time period. The two basic options are Call and Put options.
- Under CALL Option, the Buyer has the right to purchase the currency (generally Imports) and under the PUT Option, Buyer has the right to sell the currency (generally Exports).
- The Buyer of the Option is called the holder while the Seller of the option is referred to as the writer or the grantor of the Option.

Every option has 3 different price elements:



- The strike or exercise price, which is the exchange rate at which the option can be purchased or sold.
- The premium, which is the cost of the option paid at the time the option is purchased.
- The actual spot rate in the market at the time the option contract is purchased.

Pricing of an option combines the following 5 elements:

- Present spot rate
- Time to maturity
- Forward rate for the underlying matching maturity
- Interest rates for the intervening currency/stock/security
- Volatility, i.e. (standard deviation from spot to forward rates)

Types of Option - An American Option gives the buyer the right to exercise the option at any time between the date of writing and the expiration or maturity date. A European Option can be exercised only on its expiration date, not before. The premium, or option price, is the cost of the option.

SWAPS

- Swaps are derivative instruments that represent an agreement between two parties to exchange a series of cash flows over a specific period of time. Swaps offer great flexibility in designing and structuring contracts based on mutual agreement. This flexibility generates many swap variations, with each serving a specific purpose.

Factors influencing SWAPS

- Investment objectives or repayment scenarios may have changed.
- Increased financial benefit in switching to newly available or alternative cash flow streams.
- The need may arise to hedge or mitigate risk associated with a floating rate loan repayment.

Types of SWAPS

- **Interest Rate Swap:** An interest rate swap is a contractual agreement to exchange a series of cash flows where cash flows at a fixed rate of interest are exchanged for those referenced to a floating rate. While one leg of cash flow is based on a fixed interest rate, the other leg is based on a floating interest rate over a period of time. There is no exchange of the principal amounts. The size of the swap is referred to as the notional amount and is the basis for calculating the cash flows.
- **Currency Swap:** A currency swap is contractually similar to an interest rate swap where cash flows in one currency are exchanged for cash flows in another currency. The transactional value of capital that changes hands in currency markets surpasses that of all other markets. Currency swaps offer efficient ways to hedge forex risk as well interest rate risk at one go.



- **Zero Coupon Swaps:** Similar to the interest rate swap, the zero coupon swap offers flexibility to one of the parties in the swap transaction. In a fixed-to-floating zero coupon swap, the fixed rate cash flows are not paid periodically, but just once at the end of the maturity of the swap contract. The other party who pays floating rate keeps making regular periodic payments following the standard swap payment schedule. A fixed-fixed zero coupon swap is also available, wherein one party does not make any interim payments, but the other party keeps paying fixed payments as per the schedule.
- **Equity Swap:** An equity swap is an exchange of future cash flows between two parties that allows each party to diversify its income for a specified period of time while still holding its original assets. The two sets of nominally equal cash flows are exchanged as per the terms of the swap, which may involve an equity-based cash flow (such as from a stock asset, called the reference equity) that is traded for fixed-income cash flow (such as a benchmark interest rate).
- **Basis Swap:** Where cash flows on both the legs of the swap are referenced to different floating rates. A Basis swap could be an Interest Rate Swap or a currency swap where both legs are based on a floating rate. A basis swap involves a regular exchange of cash flows, both of which are based on floating interest rates. Most swaps are based on payment of a fixed rate against a floating rate, say, SOFR (Secured Overnight Financing Rate). In the basis swap both legs are calculated on floating rates.

FX Global Code

FX Global Committee at their global meet in London has endorsed the publication of the FX Global Code, a **uniform code across the globe for the wholesale foreign exchange markets which aims at the following:**

- Principles of good practices,
- Engaging local participants actively,
- Promoting healthy & disciplined dealing room trading, etc.
- Hongkong Monetary Authority (HKMA), Monetary Authority of Singapore (MAS), Reserve Bank of Australia (RBA), Bank of Korea and RBI apart from the Federal Reserve Bank, USA have already endorsed the FX Global Code,
- The revised FEDAI Code of Conduct Adoption and Implementation in the Indian Foreign Exchange Market is implemented w.e.f. 1st Sept 2021.

CAIIB Paper 2 BFM Module A Unit 2: Liberalised Remittance Scheme (LRS) and Other Remittance Facilities for Residents

Introduction

- **Introduced w.e.f. 4th Feb 2004:** Liberalised Remittance Scheme (LRS) for Resident Individuals



- Facilitates resident individuals to remit funds abroad for permitted current or capital account transactions or a combination of both.
- **Available to**
 - Resident individuals (including Minors),
- **Not Available**
 - Corporates, Partnership Firms,
 - HUFs,
 - Trusts
 - NRI

Capital Account Transactions And Current Account Transactions

- **As per Sub-section 2 (e) of Foreign Exchange Management Act 1999 (FEMA)**, Capital account transaction means a transaction which alters the assets/liabilities, including contingent liabilities, outside India of persons resident in India or assets/liabilities in India of persons resident outside India.
- **Example:** A resident individual by investing abroad in the equity of the Overseas company obtains shares allotted in his/her resulting in creation of an asset outside India.
- Likewise, a resident individual by investing in property abroad gets the ownership of the property purchased resulting in creation of an asset outside India.
- **As per Sub- As section 2 (j)** Current account transaction means a transaction other than capital account transaction and includes payments connected to trade, interest on loans and income on investments, expenses connected to travel, family maintenance, medical treatment, etc.
- **Example:** A parent remitting funds to the dependent son/ daughter abroad towards education expenses, maintenance of the student abroad, etc.

Key Sections Under FEMA Vis-À-Vis Liberalized Remittance Scheme

- **Section 4:** Save otherwise as provided in the Act, no person resident in India, shall acquire, hold, own, possess or transfer any foreign exchange or foreign security or any immovable property situated outside India, unless it was acquired while being a non-resident. However, under the contours of liberalization, resident individuals are permitted to invest abroad in property or equity - subject to adhering to the extant guidelines.
- **Section 6:** Any person may sell or draw foreign exchange to or from an authorized person for a capital account transaction ie., any class or classes of capital account transactions which are permissible and the limits up to which such transactions are permissible as per the extant regulations under the Act.
- **Section 10 (6):** Any person (other than the Authorized Person) who has acquired or purchased foreign exchange does not use it for such purpose or does



not surrender it to the authorized person within the specified period if such foreign exchange is not used or uses the foreign exchange so acquired or purchased, for any other purpose not permissible under the provisions of the Act, shall be deemed to have committed contravention of the provisions of the Act. In a nutshell, this section is about utilization of foreign exchange availed from an Authorized Dealer for the purpose for which such foreign exchange has been availed.

- **Section 11:** To secure compliance of the provisions of this Act, RBI may give to the Authorized Person any directions with regard to making payments or desist from doing any act relating to foreign exchange or foreign security, with regard to furnish such information, in such manner as it deems fit, with regard to failure to furnish such information or filing any returns impose penalty which may extend to Rs. 10,000 and in case of continuing contravention, with an additional penalty which may extend to Rs. 2,000 for every day. In a nutshell, this section is about how foreign exchange business has to be conducted by Authorized Persons and the power of RBI to penalise APs in case of any breach in procedure.
- **Section 13:** Any person contravenes any of the provisions of the Act or contravention of any rule, regulation or notification, shall upon adjudication be liable to pay penalty up to thrice the amount involved in such contravention where such amount is quantifiable or up to Rs. 2,00,000 where the contravention is not quantifiable. Where the contravention is a continuing one, further penalty may extend up to Rs. 5,000 for every day after the first day during the period of such contravention. In a nutshell, this section is about the penalties which may be imposed for contraventions of the provisions of the FEMA.

Permissible/Non-Permissible Remittances Under LRS

- **Schedule I** – Non-permissible remittances (Prohibited remittances) The following remittances are not permitted
- **Schedule II** – remittances permissible subject to approval of the respective Government Departments/Ministries
- **Schedule III** - Remittances for resident individuals – permissible under the delegated powers of the Authorized Dealers

Schedule I – Non-permissible remittances (Prohibited remittances)

The following remittances are not permitted:

- Remittances for margins or margin calls to Overseas exchanges/Overseas Counterparties.
- Payment of commission on exports made towards equity investments in JVs/WOS abroad.
- Payment related to “Call Back Services” of telephones. Remittance towards banned/proscribed magazines. Purchase of FCCBs issued by Indian companies abroad.
- Remittance of dividends by any company to which the requirement of dividend balancing is applicable.



- Remittance of interest income on funds held in Non Resident Special Rupee accounts.
- Remittance out of lottery winnings, remittance for purchase of lottery tickets. Remittance of income from racing, riding or any other hobby.
- Payment of commission on exports under Rupee State Credit Route.

Schedule II – remittances permissible subject to approval of the respective Government Departments/Ministries

- Remittances towards Cultural tours – approval from Department of Education and Culture - Ministry of Human Resources Development.
- Advertisements in Foreign Print Media by State Governments/PSU Undertakings – Ministry of Finance.
- Remittances towards Freights of Vessels chartered by PSUs – Ministry of Surface Transport.
- Payment of Imports through Ocean Transport on CIF basis by Government dept/PSUs – Ministry of Surface Transport.
- Remittances of hiring charges of transponders by TV Channels, Internet Service Providers, etc. – Ministry of Information & Broadcasting, Ministry of Information Technology.
- Remittance of prize money, sponsorship of sports activities abroad by a person other than International/ National/State level sports bodies and where the amount involved exceeds USD100,000 - Department of Youth Affairs & Sports, Ministry of Human Resources Development.

Schedule III - Remittances for resident individuals – permissible under the delegated powers of the Authorized Dealers

- Private visits to any country (other than Nepal & Bhutan)
- Gift or donation
- Going abroad for employment
- Emigration
- Maintenance of close relatives abroad
- Travel for business by resident individuals - attending international conferences, specialized training, etc.
- Accompanying as attendant to a patient going abroad for medical treatment
- Expenses in connection with medical treatment abroad
- Studies abroad
- Purchase of Objects of Art subject to Foreign Trade Policy
- Others viz., remittances towards health insurance, etc.

Operational Guidelines

General Guidelines

- **PAN** is mandatory under the scheme irrespective of the amount of remittance.



- Remit funds abroad for permissible current (Sch III remittances) or permissible capital account transactions or a combination of both.
- AD Banks to frame appropriate guidelines for Customer Interface
- Customer to designate a particular branch of the Bank through which all remittances (under LRS) are to be made, especially, with regard to capital account transactions.
- Transactions freely allowed up to **an overall limit of USD 250,000 per** FY for any permissible current or capital account transactions or combination of both. No restrictions on the frequency of remittances in an FY.
- However, once a remittance of USD 250,000 is utilized in an FY, no further remittances allowed, even if the proceeds of investments have been brought back in to the country in respect of investments abroad.
- If a sole proprietorship firm intends to remit the money under LRS by debiting its current account then the eligibility of the proprietor in his individual capacity has to be reckoned.
- International Credit Cards, International Debit Cards and ATM Cards can be used for current account transactions.
- Citizens of a foreign state (other than Pakistan) and resident in India on account of employment or deputation of specified duration or for a specific job or assignments, the duration of which **does not exceed 3 years**, is a resident but not permanently resident.
- Such individuals are eligible to make remittances under LRS subject to deduction of taxes, contributions to Provident Fund and other deductions.

Documentation

RBI does not prescribe the documents which should be verified by the AD while permitting remittances for various transactions, especially, current account transactions.

The following are the documents which generally need to be obtained while handling requests from Residents for remittances towards LRS:

- Form A2 vis-à-vis FEMA Declaration – Online submission of Form A2 allowed.
- Simplified documentation for individuals for amounts up to USD 25,000, subject to the satisfaction of the AD Bank*
- Declaration of source of funds.
- PAN, irrespective of the amount.
- Copy of confirmed ticket and VISA, if the remittance is for travel abroad.
- Where the services of Tour Operators are being availed, the tour operator can collect the amount from the resident individual either in INR or in FC. In which case the tour operator can open a Special foreign currency account with a Bank in India.



- Tax Collected at Source (TCS) applicable in respect of release of exchange by the tour operators irrespective of the threshold limits.

Remittances Under LRS For Current Account Transactions

Private visits to any country (other than Nepal & Bhutan)

- Transactions freely allowed up to an overall limit of USD 250,000 per FY
- Irrespective of the number of visits undertaken in a FY, cash towards release of exchange can be accepted up to Rs. 50,000/- beyond which transaction to be routed through the a/c.
- Unutilized foreign exchange to be surrendered to the AD within 180 days from the date of return to India.

Note:

Release of foreign exchange in form of foreign currency notes (cash):

- Foreign exchange in full may be released in the form of FC Notes or up to the cash limit specified by the Haj Committee of India, to the Haj Pilgrims.
- Travelers proceeding to Islamic Republic of Iran, Russian Federation (including erstwhile CIS countries) – full exchange may be released in the form of FC Notes.
- Travelers proceeding to Iraq and Libya - USD 5000/-
- All other countries - USD 3000/-

Gift to a person resident outside India

Companies Act, 2013 defines “relative” as one who is related to another if:

(a) They are members of HUF,

Documentary evidence, wherever applicable

(b) they are husband and wife,

(c) one person is related to other in such a manner as prescribed

under the Act. i.e., father (including step father), mother (including step mother), son (including step son), daughter, daughter’s husband, brother (including step brother), sister (including step sister), etc.

Note:

(i) Certain relatives who were included which was included under Companies Act 1956 are not included under the definition of relative for gifting.

These excluded persons are: Step daughter, father’s father, father’s mother, mother’s father, mother’s mother, Son’s son., Son’s son’s wife, son’s daughter, son’s daughter’s husband, daughter’s son, daughter’s son’s wife, daughter’s daughter’s husband, brother’s wife, sister’s husband.

(ii) A resident cannot gift to another resident, in foreign currency or foreign security, for the credit of the latter’s foreign currency account held abroad, under this scheme.



Donation to a person outside India or to an Organization outside India

Emigration – as prescribed by the country of Immigration

Note:

- Foreign exchange beyond USD 250,000 may be released if it is so required by the country of Emigration for meeting any incidental expenses in the country of Immigration subject to suitable documentary evidence submitted by the individual to the satisfaction of the AD Bank.
- This should not, however, be for earning points/credits to become eligible for Immigration by way of Overseas Investments in Government Bonds, Lands, Commercial Enterprises, etc.
- Foreign Bank guarantees towards Overseas employers/Immigration not permitted.

Going abroad for employment

Maintenance of Close relatives abroad – relative as defined u/s 2(77) of Companies Act 2013.

Purchase of Objects of Art

Subject to Foreign Trade Policy, Resident Individuals importing objects of art for personal purposes not connected with trade or commercial purpose.

Business trips

- **Travel for business.*1**
- **Attending conferences.*2**
- **Specialized training.*3**

***1, *2, *3 If an employee is being deputed by an entity for any of the above and expenses are borne by the Company, these are outside the purview of the LRS and may be permitted without any limit.**

Expenses in connection with medical treatment abroad –

- Authorised Dealers may release foreign exchange up to an amount of USD 2,50,000 or its equivalent per FY without insisting on any estimate from a hospital/doctor.
- For amount exceeding the above limit, Authorised Dealers may release foreign exchange under general permission based on the estimate from the doctor in India or hospital/doctor abroad.
- A person who has fallen sick after proceeding abroad may also be released foreign exchange by an Authorised Dealer (without seeking prior approval of the Reserve Bank of India) for medical treatment outside India.
- In addition to the above, an amount up to USD 250,000 per financial year is allowed to a person for accompanying as attendant to a patient going abroad for medical treatment/ check-up.



Studies abroad –

After having obtained admission in the Overseas University

Note:

- Foreign exchange beyond USD 250,000 may be released if it is so required by the University where the admission is secured, subject to suitable documentary evidence submitted by the individual to the satisfaction of the AD Bank.
- Foreign Bank guarantees towards educational purposes in favor of Overseas Universities/entities are not permitted.
- In terms of FEMA, students going abroad for studies are considered as NRIs and the existing resident account needs to be designated as NRO in which case they can make use of remittance facilities available to NRIs.
- They can remit up to USD 1 Mn from their NRO accounts per FY provided the credits in the NRO are legitimate dues, due in India, to the erstwhile resident.

Tax Collected At Source (TCS)

- 1st October 2020: The Finance Act, 2020 has a new insertion in the Income Tax Act on **Tax Collected at Source (TCS) at 5% on foreign remittance LRS.**
- The **threshold for TCS is Rs 7 lakhs** for an entire FY and TCS is applicable > 7 lakhs.
- In case of non-availability of PAN/Aadhar – **TCS is at 10%.**
- TCS is also applicable for transactions involving **transfer from domestic rupee account to the NRO account under LRS.**
- Remittances under LRS, towards studies abroad where the source of funds is educational loan, **0.5% will** be the TCS and applicable over the threshold limit of Rs. 7 lakhs.

Given below are some examples for levy and calculation of TCS, under LRS:

Customer A	Makes a remittance of Rs 6,50,000 Date: Apr 04, 2020	No tax will be collected
	Makes a remittance of Rs 9,50,000 Date: May 05, 2020	5% tax will be collected on Rs 9,00,000 (Rs 6,50,000+9,50,000-7,00,000)
	Makes a remittance of Rs 40,000 Date: Dec 10, 2020	5% tax will be collected on incremental Rs 40,000 (as the remitter has crossed Rs 7 lakh earlier)
Customer B	Makes a remittance of Rs 20,00,000 in the same FY Date: Apr 30, 2020	5% tax will be collected on Rs 13,00,000 (Rs 20,00,000 – 7,00,000)
Customer C	Makes a remittance of Rs 10,00,000 for pursuing education through a loan obtained from any Financial Institute	0.5% tax will be collected on Rs 3,00,000 (Rs 10,00,000 – 7,00,000)

LRS VIS-À-VIS Capital Account Transactions



Remittances to International Financial Services Centres (IFSCs)

With a view to deepen the financial markets in the International Financial Service Centres (IFSCs), an opportunity is provided to the resident individuals to diversify their portfolio wherein residents are permitted to make remittances under LRS to IFSCs, set up in India under the Special Economic Zone guidelines, subject to the overall limit permissible under the extant guidelines.

The following provisions need to be adhered to by the resident individuals:

- The remittances shall be made only for making investments in IFSCs in securities, other than those issued by entities/companies resident (outside IFSC) in India.
- Opening of a non-interest-bearing Foreign Currency account (FCA) in IFSCs permitted for making the above permissible investments under the LRS.
- Any funds lying idle in the account for a period up to 15 days from the date of credit into the account shall be immediately repatriated to domestic INR account of the investor in India.
- No domestic transactions are permissible to be settled with other residents through these FCAs held in IFSC.
- AD Banks allowing such remittances on behalf of resident individuals shall comply with all other terms and conditions including reporting requirements under the Scheme.

Remittances of capital account nature can be made, under LRS, for the following:

Opening of foreign currency accounts abroad.

- Purchase of Immovable Property abroad.

Making Investments abroad in the form of:

- ✓ Acquisition & holding of shares both in Listed/Unlisted Cos
- ✓ Acquisition of debt instruments
- ✓ Acquisition of qualification shares of an Overseas Co., for holding the post of Director,
- ✓ Acquisition of shares of a foreign company towards professional services rendered or in lieu of Director's remuneration,
- ✓ Units of Mutual Funds, Venture Capital Funds, Unrated debt securities, Promissory Notes, etc.,
- ✓ Setting up of JVs/WOS outside India where the JV/WOS is engaged in a bonafide business activity*.

Extending loans including loans in INR to NRIs who are close relatives.

A resident individual is prohibited from making direct investments in a JV/WOS which is engaged in the following:

- ✓ In real estate business,



- ✓ Banking business, or
- ✓ In the business of financial service activities.

The following are also to be complied with reference to LRS for capital account transactions:

- ✓ The resident individual to designate a Branch of an AD Bank through which all the remittances relating to Capital account transactions are to be effected.
- ✓ The individual should have maintained **account with the Branch for a minimum period of one year** prior to the date of remittance and the dealings should be satisfactory.
- ✓ Investment in Property by resident individuals up to the limit of USD 250,000 in a FY.
- ✓ No Credit facilities to be extended to facilitate capital account transactions.
- ✓ Remittances can be consolidated in respect of family members subject to individual family members complying with the terms & conditions & all the family members are co-owners, co-partners of the Overseas Property, ie., Joint ownership.

Remittances under LRS for Overseas Direct Investments (ODI)

A resident individual (either singly or in association with another resident individual/Indian party), may make Overseas Direct Investments in equity shares and compulsorily convertible preference shares of a JV/WOS outside India.

Direct Investment outside India means (Regn. 2 (e))

- ✓ Investments by way of contribution to the capital
- ✓ Subscription to Memorandum of Association of the foreign entity
- ✓ Purchase of existing shares of a foreign entity either by market purchase or private placement or through stock exchange but does not include Portfolio Investments.

A resident individual is prohibited from making direct investments in a JV/WOS which is engaged

- ✓ In real estate business
- ✓ Banking business, or
- ✓ In the business of financial service activities.
- Investments can be either in listed companies or unlisted companies or a combination of both subject to a maximum overall limit for all purposes put together at USD 250,000/FY.
- No credit facilities to be extended to facilitate capital account transactions.
- Opening of Bank account abroad permitted for facilitating and putting through the investment transactions.



- Remittances can be consolidated in respect of family members subject to individual family members complying with the terms and conditions and all the family members are co-owners, co-partners of the Overseas Investments.

In respect of investments in the existing JV/WOS, valuation shall be as follows (Regn. 6 (6)):

- **Where investments are more than USD 5 Mn (or equivalent in other currencies):** valuation by Category I Merchant Banker registered with SEBI or an Investment Banker/Merchant Banker outside India registered with appropriate regulatory authority in the host country.
- **Where investments is less than USD 5 Mn (or equivalent in other currencies),** a Certificate by a C.A. or a C.P.A.
- ✓ **Repatriate all dues** viz., Dividends, Royalties, Technical fees, etc., within 60 days of such amounts falling due.
- ✓ **Disinvestments** shall be allowed only after one year from the date of making the first investment.
- ✓ No write-off allowed in respect of disinvestments by resident individuals.
- ✓ A resident individual is prohibited in making Direct Investments in FATF Non-compliant countries.
- ✓ The JV/WOS should be engaged in bonafide business activity.
- ✓ The JV/WOS should be **an operating entity only** and no step-down subsidiary is allowed to be acquired by the JV/WOS.
- ✓ The permissible ceiling shall be **within the overall limit** under LRS and the investments made out of balances in the EEFC/RFC accounts shall be restricted to the LRS limit.
- ✓ Resident individuals should not be on the RBI Caution list or list of defaulters to the banking system or under Investigation by any Investigation or Enforcement Agency or regulatory body concerned.

Documentation for ODI

- Form A2 vis-à-vis FEMA Declaration – Online submission of Form A2 allowed.
- Simplified documentation for individuals for amounts up to USD 25,000, subject to the satisfaction of the AD Bank*
- Declaration of source of funds
- PAN
- Form ODI (in respect of investment in WOS/JV abroad)

Part I of Form ODI to be submitted within 30 days of making the first remittance.

Designated AD Bank to report to RBI in Form ODI (Part I & II) within 30 days from the date of making the remittance by the resident individual.

* Documentary evidence, wherever applicable.

- Resident individual should submit share certificates/any other document as evidence, within 6 months from the date of making the remittance.



- Post investment changes/alterations in share holding pattern to be reported to the Designated AD **within 30 days** from date of such changes.
- Submit every year, before 31st December, the **Annual Performance Reports - APRs. FLA not required.**
- Disinvestments allowed **after one year from** the date of remittance. Disinvestments shall be repatriated to India immediately and in any case not later than 60 days from date of disinvestment & same is to be reported to the designated AD within 30 days from the date of receipt of disinvestment proceeds.

Loans by resident individuals to NRI close relatives

The following are required to be complied:

- Loan is free of interest.
- Minimum maturity: one year.

For borrower's personal requirements or for business purposes. Loan shall not be utilized for:

- Business of chit funds/Nidhi funds.
- Agricultural, plantation or real estate activities, construction of farm houses, trading in TDRs, etc.
- Proceeds may be credited to the NRO account of the NRI/PIO.
- The loan amount shall not be remitted outside India.
- Repayment shall be from inward remittances or transfer from NRO/NRE/FCNR accounts.

Reporting Requirements Under LRS

Earlier reporting of LRS by the AD Banks was based on the declarations made by the resident individuals and no independent reliable sources for verification were available.

However, with effect from April 2018, a daily reporting system by AD Banks of transactions undertaken by the resident individuals has been put in place by RBI.

- ADs are required to upload daily transaction-wise information undertaken by them under the LRS.
- The reporting of daily transactions are to be reported on the XBRL platform by close of business of the next working day.*
- NIL report to be uploaded if there are no transactions on a particular business day.
- The data on such daily reporting is made available to all the AD Banks.

CAIIB BFM Module A Unit 3: Correspondent Banking and NRI Accounts



Correspondent Banking - Accounts and Other Services

Correspondent banking in its true sense, is the relationship between two banks which have mutual accounts with each other, or one of them has account with the other. However, in a larger sense, this means a relationship and servicing of banking needs, as agents, without having account relationship also. This was due to a large number of banks offering correspondent banking services and it was not possible to have and maintain accounts with a large number of them, but the growing needs of the international business, required help and services from a large number of banks, across the globe.

Functions Handled by Correspondent Banks

Account Services

- These services require having account relationship with the foreign bank.
- Clearing House Functions
- Collections: Correspondent banks provides services as agents for collection of export/import bills as well as cheques, in their country.
- Payments
- Overdrafts and loan facility
- Investment Services

Other Services

- Letter of Credit advising
- LC Confirmations
- Bankers Acceptances
- Issuances of Guarantees-bid-bond, performance etc.
- Foreign Exchange Services, including derivation products
- Custodial services
- Trade referrals and credit reports on foreign parties
- Services related to investment of overnight surplus funds, short-term deposits, as also securities etc.
- Other fund raising services, like placement of shares, bonds ADR/GDR etc.
- Training and seminars on various topics/on latest developments.

Banks Accounts

- **NOSTRO Account:** A nostro account refers to an account that a bank holds in a foreign currency in another bank.
- **VOSTRO Account:** A vostro account is an account a correspondent bank holds on behalf of another bank. These accounts are an essential aspect of correspondent banking in which the bank holding the funds acts as custodian for or manages the account of a foreign counterpart.



- **LORO Account:** Loro Account is a Current Account Maintained by one Domestic Bank on behalf of other domestic bank in foreign bank in foreign currency. In other word Loro Account is a Nostro Account for one bank who opened the bank and Loro Account for other bank who refers first one account.
- **Mirror Account:** Mirror Account is the reflection of NOSTRO Account in the books of the principal bank. This is maintained for reconciliation purpose and is maintained in both foreign currency and rupees.

Electronic Modes of Transmission/ Payment Gateways

SWIFT: The Society for Worldwide Interbank Financial Telecommunication, legally S.W.I.F.T. SCRL, provides a network that enables financial institutions worldwide to send and receive information about financial transactions in a secure, standardized and reliable environment.

CHIPS

- **The Clearing House Interbank Payments System (CHIPS)** allows large interbank transactions in the U.S. to clear.
- CHIPS is slower but less expensive than the other major interbank clearing house known as Fedwire, making it more amenable to larger transactions that can take longer to clear.
- CHIPS works by netting debits and credits across transactions, providing both clearing and settlement services to its customer banks.

Fedwire

- **Fedwire (formerly known as the Federal Reserve Wire Network) is a real-time gross settlement funds transfer system** operated by the United States Federal Reserve Banks that allows financial institutions to electronically transfer funds between its more than 9,289 participants (as of March 19, 2009).

Chaps

- The Clearing House Automated Payments System (CHAPS) is a U.K.-based system that facilitates large British pound-denominated money transfers.
- Multinational banks principally use CHAPS.
- CHAPS allows funds to be transferred almost instantaneously, minimizing the risk of loss or theft.

Target (Trans-European Automated Real-time Gross Settlement Express Transfer)

- TARGET has a decentralised structure (see diagram), linking together 16 national real-time gross settlement (RTGS) systems and the ECB payment mechanism (EPM). It is owned by the Eurosystem, which consists of the ECB and the 12 national central banks (NCBs) of the euro area.



- TARGET2 is the real-time gross settlement system for the Eurozone, and is available to non-Eurozone countries. It was developed by and is owned by the Eurosystem. TARGET2 is based on an integrated central technical infrastructure, called the Single Shared Platform.

RTGS

- The acronym '**RTGS**' stands for **Real-Time Gross Settlement**. Simply put, it is the process of continuous (real-time) settlement of funds, which occurs individually, on an order by order basis, without netting. In other words, your request to transfer or settle funds is carried out immediately, instead of the same happening in batches (as is the case in NEFT).
- 'Real Time' indicates that the processing of instructions happens at the time they are received rather than at some later time. 'Gross Settlement' indicates that the settlement of fund transfer instructions occurs individually (on an instruction-by-instruction basis). Considering that the settlement of funds takes place in the books of the Reserve Bank of India, the payments made through RTGS are final and irrevocable.
- **RTGS is available 24x7x365** with effect from December 14, 2020.
- The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is **₹ 2,00,000/- with no upper or maximum ceiling**.

NEFT

- **National Electronic Fund Transfer (NEFT)** is a nation-wide payments system that allows the transfer of funds from one bank's account to another. With an increased focus on online banking, NEFT has become one of the most popular ways of transferring funds. Since it can electronically transfer funds from any bank branch to any individual, it has eliminated the need to visit a bank branch for transfer of funds.
- W.e.f. December, 14th 2020, the transfer of funds through RTGS is available for customers **24/7 x/365 days with the minimum amount of Rs. 2,00,000** with no upper or maximum ceiling. Under the normal circumstances, the beneficiary Bank branches are expected to receive the funds in real time as soon as funds are transferred by the remitting Bank. The beneficiary bank must credit the beneficiary's account within 30 minutes of receiving the funds transfer message.

NRI Banking

If you are a **Non-Residential Indian (NRI)** or a **Person of Indian Origin (PIO)**, you will have different banking and investment needs. Since you are residing abroad, most of your income and savings will be in foreign denominations, e.g. **US dollar, Euro, etc.** As such, you might need an account that would suit your requirements.



Many major banks and financial institutions in India offer the facility of opening an NRI Account. These accounts provide numerous facilities with respect to the currency denomination, transferability of the amount, tax, etc. But do you know everything about NRI Accounts? Let's learn in detail what is an NRI Account and the different types of NRI Accounts.

Resident

- If an individual is in India for at least 182 days in the preceding Financial Year (say, for example 2019-20)
- If an individual is in India for at least 365 days in the last 4 Financial Years (for example 2015-16, 2016-17, 2017-18, 2018-19) and at least 60 days in the preceding Financial Year 2019-20, is treated as a Resident.

Non-resident

Individuals not satisfying the conditions (a) or (b) above will be treated as NRIs.

Amendment effective from 1st April 2020.

If an individual is in India for at least 120 days (as compared to the previous threshold of 182 days) in the previous Financial Year (say 2019-20) AND stayed in India for at least 365 days or more in the last 4 Financial years i.e. 2015-16, 2016-17, 2017-18, 2018-19) and the taxable income in India exceeds Rs. 15 lakhs, THEN the Non-Resident Indian will be treated as Resident for the taxation purposes and the income will be taxed accordingly.

Resident but Not Ordinarily Resident – RNOR (for the purposes of Income Tax)

Should have stayed outside India for 9 years out of the last 10 preceding Financial Years

OR

Should have stayed in India for less than 730 days in the last 7 Financial Years

OR

PIO/Indian Citizen with more than Rs. 15 lacs income earned from Indian sources, stayed in India for 120 days or more in the previous FY plus 365 days or more in the preceding last 4 FYs

OR

Deemed resident with more than Rs. 15 lacs income earned from Indian sources.

Deemed Resident (for the purposes of Income Tax)

- An NRI who is not a tax resident of any country and has more than Rs. 15 lacs income in India earned from Indian Sources.
- The status of deemed residency is applicable only for NRIs who hold Indian Citizenship and not applicable to PIOs.



Impact of the amendments to the Finance Act 2020

- A deemed resident in India with more than Rs. 15 lacs income from India and who is not a tax resident of any other country.
- A PIO or an Indian Citizen with more than Rs. 15 lacs income from Indian sources.

As per the FEMA 1999, Non-Resident Indian is:

(a) A person resident outside India who is a citizen of India, i.e.

- Indian citizens who proceed abroad for employment or for carrying on any business or vocation or for any other purpose in circumstances indicating indefinite period of stay outside India.
- Indian citizens working abroad on assignments with Foreign governments, government agencies or International/Multinational Agencies like United Nations Organizations (UN), International Monetary Fund (IMF), and World Bank, etc.
- Officials of Central and State Governments and Public Sector Undertaking deputed abroad on assignments with Foreign Govt. Agencies/Organizations or posted to their own offices including Indian Diplomatic Missions abroad.

(b) A person of Indian origin (PIO) is one who is a citizen of any other country (other than Bangladesh or Pakistan or such other country as may be specified by the Central Government), satisfying the following conditions:

- Who was a citizen of India by virtue of the Constitution of India or the Citizenship Act, 1955 (57 of 1955); or,
- Who belonged to a territory that became part of India after the 15th day of August, 1947; or,
- Who is a child or a grandchild or a great grandchild of a citizen of India or of a person referred to in clause (a) or (b); or,
- Who is a spouse of foreign origin of a citizen of India or spouse of foreign origin of a person referred to in clause (a) or (b) or (c).

Types of NRI Accounts

- Non-Resident External (NRE) Accounts
- Non-Resident Ordinary (NRO) Accounts
- Foreign Currency Non-Resident (FCNR) Accounts
- Special Non-Resident Rupee Account-SNRR account

Non-Resident External (NRE) Accounts

- **The Non-Resident External (NRE) Account allows you to transfer your foreign earnings easily to India.** However, this type of account is rupee dominated and can be opened in the form of Current, Savings, Fixed or Recurring Deposits.



- It is vital to know that there is no tax levied on the interest earned from these accounts, i.e. they are tax exempt, and they are also easily repatriable, i.e. transferable. These accounts can be jointly opened with close relative Resident Indian on Former or Survivor basis.

Non- Resident Ordinary (NRO) Accounts

- **The Non-Resident Ordinary (NRO) Account are primarily opened for depositing rupees earned in India. Foreign earnings can also be deposited in this account.** When an Indian citizen goes abroad for a job with an intention to stay there, his resident accounts should be converted into an NRO Account by the bank. Therefore, it is essential to inform the bank about the individual's departure abroad.
- Also, it is vital to know that NRO Accounts are rupee dominated and can be opened in the form of Savings, Current, Recurring Deposits or Fixed Deposits. These accounts can be jointly opened with any Resident Indian on Former or Survivor basis.

Foreign Currency Non-Resident (FCNR) Accounts

The Foreign Currency Non-Resident (FCNR) Account can be opened in different currencies such as US Dollars, Canadian Dollars, Australian Dollars, Sterling Pounds, Euro, Japanese Yen, etc. These FCNR Accounts can be opened in the form of term deposits for the following maturity periods:

- 1 year and above but less than 2 years
- 2 years and above but less than 3 years
- 3 years and above but less than 4 years
- 4 years and above but less than 5 years
- 5 years.

Special Non-Resident Rupee Account-SNRR account

- **SNRR account has been allowed to be used for specified transactions in trade, foreign investments, External Commercial Borrowings, etc.,** in lieu of sending inward/outward remittances by a person resident outside India in a convertible foreign currency for each transaction with a resident or vice-versa, all precautions need to be taken by Authorized Dealer (AD) banks to ensure identification of the counterparty of such transactions.
- Some of such precautions are listed out in FAQs below. The onus of ensuring the use and identification of SNRR transactions as per guidelines falls on the AD banks.

Facilities To NRIs

NRIs can freely invest in shares and securities of Indian companies. On repatriation basis or non-repatriation basis as direct investment in shares/debentures (Debts) offered by companies or under Portfolio Investment



Scheme i.e. investment in secondary market/through a recognized stock exchange. NRIs can also invest in securities other than shares and convertible debentures.

Investments in Shares/Securities

Investments by NRIs have been broadly categorized into two segments:

- On Repatriation basis.
- On Non-repatriation basis,

Investment in shares/convertible debentures on repatriation basis:

Non Resident Indian [NRI] being an Indian citizen as also a foreign citizen of Indian origin is permitted to freely invest in shares and/or convertible debentures of Indian company carrying on almost every kind of business in India barring a few cases wherein prior approval of the Reserve Bank of India is necessary These investment may be made on repatriation basis or non-repatriation basis. Repatriation is governed by various Investment caps/ceilings.

As the company is required to comply with the procedural aspects such as submission of necessary details, reports, certificates of Chartered Accountant etc., the NRI is not required to undertake any procedural aspect whatsoever.

The investment on repatriable basis can be made in shares, bonds, securities, from the funds brought from abroad in freely convertible currencies or by debit to NRE/FCNR account of the investor.

General permission has been granted under the regulations, to any person, resident outside India, to purchase equity or preference shares or convertible debentures of an Indian company, subject to conditions and industry company investment caps, as stipulated.

However, investment in shares and securities by NRIs have been further classified under following categories:

- Investment under Foreign Direct Investments
- Investment under Portfolio Investment Scheme
- Purchase and sale of shares on non-repatriable basis
- Purchase and sale of securities other than shares and convertible debentures of an Indian company

Other Investment Avenues

Units of UTI, mutual funds

- NRIs are permitted to invest in units of UTI or other mutual funds on repatriable as well as non-repatriable basis.

Company deposits



- NRIs are permitted to invest in company deposits on repatriable basis, provided the deposits are for a minimum period of 3 years, are within the ceiling prescribed by RBI for the company to accept deposits and are made out of fresh remittances or from balances held in NRE/FCNRB deposits.

Investment in partnership firm or proprietorship concern

- An NRI is permitted to invest in a partnership firm or a proprietorship concern, by way of capital contribution, provided (i) the concern is not engaged in agricultural/plantation activity or real estate business or dealing in immovable property, with a view to earning profit from it, and (ii) the contribution should be by way of fresh inward remittances into India or out of balances held in NRE/FCNRB deposits accounts. The amount so invested shall be permitted to be repatriable out of India, subject to payment of taxes.

Investment in Immovable Property

- A person resident outside India, who is a citizen of India, is permitted to acquire any property in India other than agricultural/plantation/farm house, and transfer the same to any person resident in India or to a person resident outside India, who is an Indian citizen.
- NRI can acquire such a property, out of funds received in India by way of inward remittance from any place outside India, or from the balances held in any non-resident rupee account or foreign currency account maintained in India.
- NRI can also acquire such a property by way of gift by a person resident in India, or from a person resident outside India, who is a citizen of India or from a person of Indian origin, resident outside India.
- NRI can also acquire any immovable property in India by way of inheritance from a person resident outside India, who had acquired such property in accordance with the foreign exchange law, prevailing at the time of such acquisition by him.

Repatriation of sale proceeds of immovable property: Banks are allowed to permit repatriation of sale proceeds of immovable property, other than agricultural land/plantation/farm house, by an NRI, provided:

- The property so acquired was in accordance with the foreign exchange laws in force at the time of acquisition by him.
- The sale proceeds required to be repatriated does not exceed the foreign exchange brought in to acquire the property
- In case of residential property, the repatriation of sale proceeds is restricted to not more than two properties
- Banks are now permitted to allow repatriation of funds out of balances held by NRIs in their Non. resident accounts up to USD 1 million per financial year,



representing sale proceeds of immovable property held by them, without any lock in period, subject to payment of applicable taxes.

Further, a non-resident Indian is also permitted to acquire any commercial or other property, which is incidental or necessary to his business interests in India, like, branch offices, etc., and which is permitted under the law of the land.

(a) Citizens of Pakistan, Bangladesh, Sri Lanka, Afghanistan, China, Iran, Nepal, Bhutan, Macau or Hong Kong, irrespective of their residential status, cannot, without prior permission of the Reserve Bank, acquire or transfer immovable property in India, other than on lease, not exceeding five years.

(b) Foreign nationals of non-Indian origin who is resident in India (except 10 countries listed at (a) above) can acquire immovable property in India.

Other investments

A Non-resident Indian can purchase without limit:

On repatriation basis

- Dated Government securities (other than bearer securities) or treasury bills or units of domestic mutual funds;
- Bonds issued by a public sector undertaking (PSU) in India, and
- Shares in Public Sector Enterprises being disinvested by the Government of India.

On non-repatriation basis

- Dated Government securities (other than bearer securities) or treasury bills or units of domestic mutual funds;
- Units of Money Market Mutual Funds in India; and
- National Plan/Savings Certificates.

Advances To Non-Residents and Third Party Advances Against NRI Deposits/Guarantees, Other Loans

Loans against the Non-Resident deposits can be granted in India to the account holder or third party subject to usual norms and margin requirement. The loan amount shall not be used for re-lending, carrying on agricultural/plantation activities or investment in real estate. ADs can sanction loans in India to the account holder/third parties without any limit, subject to usual margin requirements. These loans cannot be repatriated outside India and can be used in India only for the purposes specified in the regulations.

In case of loans sanctioned to a third party, there should be no direct or indirect foreign exchange consideration for the non-resident depositor agreeing to pledge his deposits to enable the resident individual/firm/company to obtain such facilities



Housing Loan in Rupees to Non-resident Indians

Banks may grant housing loan to non-resident Indians, for acquisition of a residential accommodation in India, subject to following conditions:

- The quantum of loan, margin money and the period of repayment shall be same as applicable for resident Indians.
- The loan amount shall not be credited to NRE/FCNR (B) account.
- The loan shall be fully secured by equitable mortgage of the property proposed to be acquired and if necessary, also by lien on the borrower's other assets in India,
- Repayment shall be by remittance from abroad or by debit to his NRE/FCNR (B)/NRO account or rental income derived from renting out the property acquired by utilization of the loan.

Prohibited transactions for NRIs

The following transactions are prohibited for NRIs

- Purchase of Agricultural Property, Plantations and Farm Houses.
- Dealing in Real Estate Activities, commercial properties, etc.
- Trading in Transferable Development Rights (TDRs).
- Opening PPF accounts., (however, if opened earlier as a resident, such accounts may be continued to be operated).
- Contributions towards government linked schemes viz., NSCs, etc.
- Intra-day trading in securities, short selling, etc.

CAIIB BFM Module A Unit 4: Documentary Letters of Credit

Introduction

A Letter of Credit/Documentary Credit is a very common and instrument, used for trade settlements across the globe. It is a link between buyers and sellers, reinforcing the buyer's integrity by adding to it his banker's undertaking to pay, while sellers need to make shipments of goods specified and present shipping documents to banks, before getting the payment. Thus, for international trade, where buyers and sellers are located far apart in different countries, or even different continents, the letter of credit acts as a most convenient instrument, giving assurance to the sellers of goods for payment and to the buyers for shipping documents, as called for under the credit.

UCP 82 (1933)

The first document issued under the title "**Uniform Customs and Practice**" based on the draft document circulated in 1929 contained the following provisions:

- Responsibility of the Bank to examine all documents and papers with care so as to ascertain that on their face, they appear to be in order.



- The word 'honor ' and the detailed requirements of transport and insurance documents were introduced.
- When a Documentary Credit requires presentation of other documents, without further definition, banks will accept such documents as tendered without any responsibility on their part.
- The stipulation that when the expiry date of a documentary credit falls on a Sunday, or a legal holiday or a local holiday, the period of validity will be extended to the next following business day.
- The terms "effectiveness of documents, transmission/translation of documents and the meaning of the words "first half", "second half", "beginning of the month", "middle of month", and "end of month" were also explained.

UCP 151 (1951)

- This was the first revision of the UCP rules wherein the use of the terms "Applicant" instead of "Principal" was used and the methods of settlement – Payment, Acceptance, Negotiation and Purchase were introduced.
- The very important concept that "in documentary credit operations, all the parties deal in documents and not in goods", and that "Banks must determine compliance on the basis of documents alone". was highlighted.
- Provision with regarding to "the issuing bank had "reasonable time" to examine the documents and the stipulation that the "description of the goods on the commercial invoice must correspond with the description in the credit" was also highlighted.

UCP 222 (1962)

- The UK and the Commonwealth Banks adopted the UCPDC for the first time including the provision that the Documentary Credit is binding on all the parties.
- A rule that "a credit is separate from the Sales or other contracts on which it may be based" and that the "confirming bank negotiates without recourse" were introduced.
- The details of how to handle the documents of the second beneficiary if first beneficiary fails to substitute its own documents was introduced.

UCP 290 (1974)

- Introduction of the term "nomination" and its use.
- The addition of details regarding inconsistency between documents, a new article covering "Combined Transport", "Assignment of Proceeds", and the default period for presentation within 21 days after the date of issuance of the BL or other transport document.

UCP 400 (1983)



This revision resulted in restructuring of the entire text and brought out the **layout of the UCP as is prevalent today and some of the important provisions were:**

- The requirement that the advising bank is to take reasonable care to check the authenticity of Credit.
- Introduction of the term “Deferred Payment Undertaking” as a settlement means.,
- Separate article covering “Original documents” and “Bank-to-Bank Reimbursement”.
- Definition of “transshipment”.

UCP 500 (1993)

This version is the first UCP that many of the documentary credit practitioners across the globe have experienced and the revision consisted of many changes:

- “Credit is irrevocable” if the doc. Credit is silent on this issue,
- Banks to advise a credit that could not be authenticated,
- Reasonable time, not to exceed 7 banking days following the date of presentation of documents, in which to determine compliance or non-compliance,
- The requirement that non-documentary conditions were to be disregarded,
- Indication of who can sign transport documents and redefining of the word “transshipment”.

UCP 600 (2007)

UCP 600 represents the latest and current version of UCP to align with ISP 98 which covers:

- New articles covering “definitions” and “interpretations”.
- Removal of reference to “revocable credits”.
- New sub-article covering “documents lost in transit”.
- Setting of the maximum examination period as “5 banking days following the day of presentation”.
- The stipulation that documents are to appear to fulfil their function where the credit is silent with regard to the data content.
- Possibilities for handling discrepant documents.

Definition of Letter of Credit

A documentary credit or/and letter of credit, (DC or LC) can be defined as a signed or an authenticated instrument issued by the buyer's banker, embodying an undertaking to pay to the seller a certain amount of money, upon presentation of documents, evidencing shipment of goods, as specified, and compliance of other terms and conditions.



An LC can also be defined as an undertaking issued by the bank, on behalf of the importer or the buyer, in favour of the exporter or the seller, that, if the specified documents, showing that a shipment has taken place, or a service has been supplied, are presented to the issuing bank or its nominated bank, within the stipulated time and all other LC terms are complied with, the exporter/seller will be paid the amount specified.

Thus, in an LC transaction, following parties are involved:

- The buyer/importer or the applicant - **on whose behalf LC is opened.**
- The seller/exporter or the **beneficiary of the LC.**
- The opening bank (buyers bank), **who establishes the LC.**
- The advising bank (bank in seller's country), **who acts as an agent of the issuing bank and authenticates and advises the LC.**
- The confirming bank - **who undertakes to pay on behalf of the issuing bank.**
- The negotiating/nominated bank (sellers bank or bank nominated by the opening bank), **who negotiates the LC and makes payment to the beneficiary.**
- Reimbursing bank - **who reimburses the negotiating or confirming bank.**

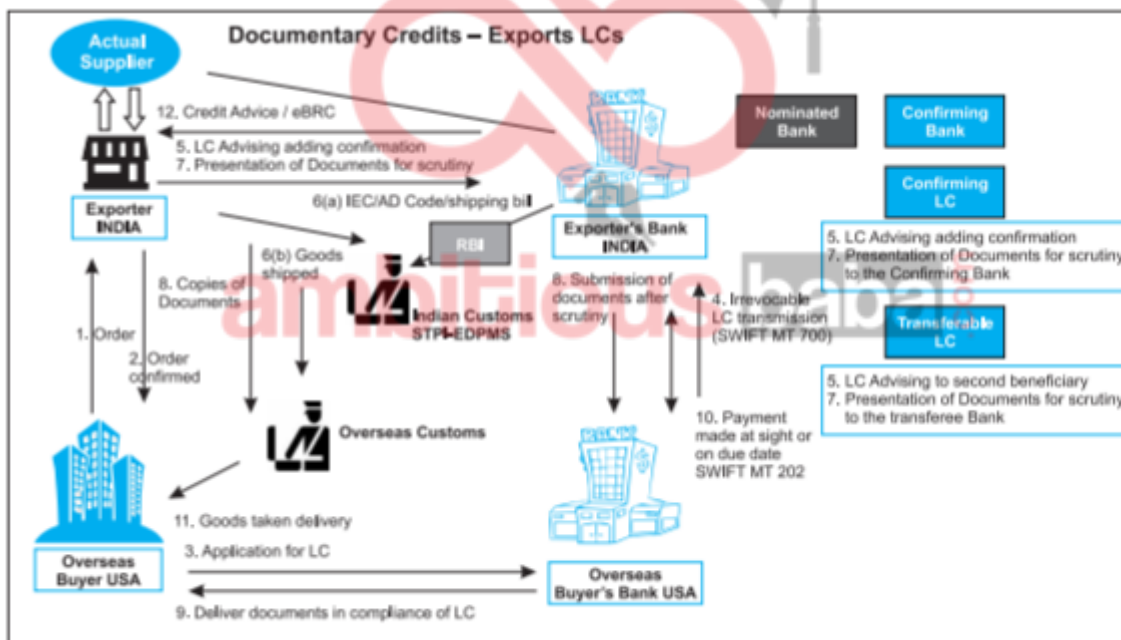
Types of Letter of Credit

- **Revocable LC:** A revocable LC is a credit, the terms and conditions of which can be amended/ cancelled by the Issuing Bank. This cancellation can be done without prior notice to the beneficiaries. An irrevocable credit is a credit, the terms and conditions of which can neither be amended nor cancelled.
- **Irrevocable LC:** An irrevocable letter of credit is an agreement between a buyer (often an importer) and the buyer's bank. The bank agrees to pay the seller (the exporter) as soon as certain conditions are met. Because it is irrevocable, the terms of the letter cannot be changed without the agreement of everyone involved.
- **Irrevocable Confirmed Letter of Credit:** An irrevocable letter of credit cannot be changed or cancelled unless everyone involved agrees. Irrevocable letters of credit provide more security than revocable ones. A confirmed letter of credit is one to which a second bank, usually in the exporter's country adds its own undertaking that payment will be made.
- **Transferable LC:** A Transferable LC is letter of credit where the Beneficiary (Transferor or 1st Beneficiary) may request the Transferring Bank to make the credit available in whole or in part to one or more other beneficiaries called Transferee(s) or 2nd beneficiary (ies).
- **Red Clause:** A red clause letter of credit is a specific type of letter of credit in which a buyer extends an unsecured loan to a seller. Red Clause Letters of Credit permit documentary credit beneficiaries to receive funds for any merchandise outlined in the letter of credit.

- **Green Clause:** A letter of credit which contains a clause authorising the nominated bank to make advances to the seller against security (such as a payment guarantee from a third party or the pre-shipment storage of the goods in the name of the nominated bank or the issuing bank) before shipment /presentation of documents.
- **Back to Back LC:** Back-to-Back Letter of Credit is a negotiable instrument in which the seller gets a Letter of Credit from the buyer and the seller further transfers the Letter of Credit to its supplier.
- **Standby LC:** A standby letter of credit (SLOC) is a legal document that guarantees a bank's commitment of payment to a seller in the event that the buyer—or the bank's client—defaults on the agreement.
- **Revolving LC:** A revolving letter of credit is a single letter of credit that covers multiple transactions over a long period of time. It is very specific in a way that it is used for regular shipments of the same commodity between the same buyer (importer) and the seller (exporter).

Operations of Letter of Credit

With the involvement of the several parties, the *LC transaction operates between the two nations, as explained in the following diagram:*



As shown in the diagram above, the transaction flows as under:

- The buyer and seller enter into the sales contract, for purchase/sale of certain amount of specified goods at specified rates, but agree to cover the transaction under Letter of Credit.
- The buyer in country A (applicant/opener) requests his bank, to open LC in favour of the seller in country B (beneficiary) for the specified amount.



- The buyer's bank, i.e. opening bank, issues the LC and sends the same to the beneficiary in country B, through its own branch or correspondent.
- The advising bank in country B, advises the LC to the beneficiary after authenticating signatures/swift.
- If the seller desires for the LC to be confirmed by some bank, in his own country, normally the advising bank agrees to do so, at the request of the opening bank and as per arrangement and on the behalf of the opening bank. Now the advising bank would also be called the Confirming Bank.

The seller now prepares the goods, and ships them as per instructions in the LC, submits the documents called for in the LC to the negotiating bank, which examines the same and if found to be in conformity with the LC terms, negotiates the documents and pays to the beneficiary. This bank now becomes the **negotiating bank**.

Uniform Customs and Practice For Documentary Credits

Were first framed by the ICC (International Chamber of Commerce) in 1933. Since then these rules have been revised six times, viz., 1951, 1962, 1984, 1994 and 2007. UCP-600, which is effective from 1/7/2007, is the latest revision.

UCP 600 - Important Changes:

UCP 600

- ICC Paris appointed a Task Force, after approval of the Banking Commission in 2003, to undertake revision of the UCP 500. The Task Force after working for over three years prepared a draft of the new UCP. The Drafting group constituted members from 9 countries, which had 15 meetings before the draft was finalized.
- A Consultative group, comprising of 41 members from 26 countries was formed to discuss the Draft. The Draft was also referred to National Committees, including ICC India, and key issues were identified, taking in to account various ICC opinions, DOCDEX decisions, papers, court decisions, etc.
- **DOCDEX** is one of the options available to the parties of the LC to resolve letter of credit disputes. Its full form is "ICC's Documentary Credit Dispute Resolution Expertise". After extensive working, discussions, deliberations on various articles, practices, and need to simplify the Articles, the ICC Banking commission approved the Draft of UCP 600, in its meeting on 25th October 2006, bringing the new UCP in to force w.e.f. 1st July 2007.

Main Features of UCP 600

- The UCP 600 was a major review in the history of Uniform Rules for Documentary Credits. It is leaner, with only 39 Articles, as compared to 49 in the earlier version. While some articles of the earlier version were deleted, some of the articles were merged, and a few new articles added. The major thrust was on a simplified language of articles.



Groupings

The Articles of UCP 600 can be grouped as under:

- **Article 1-5:** Definitions, Interpretations, Independence of LCs and Underlying contracts.
- **Article 6-10:** Availability, Expiry date and place, Obligations of issuing and Confirming bank, Advising credits and Amendments.
- **Article 11-17:** Pre-advised credits, Nominated bank, Reimbursement arrangements, Complying presentations, Original documents, etc.
- **Article 18:** Commercial invoice.
- **Article 19-27:** Transport documents.
- **Article 28:** Insurance documents.
- **Article 29-33.** Extension, Tolerance, Partial and Instalment drawings and Hours of presentation.
- **Article 34-37:** Disclaimers.
- **Article 38-39:** Transferability and Assignment of proceeds.

Liabilities, Responsibilities and Rights of The Parties

The Applicant

- **The applicant of the L/C must give complete and precise instructions for issuance of Letter of Credit and any amendment thereof.** The LC must not include excessive details or give any reference of credit previously issued, to avoid any confusion or **misunderstanding (Article 5)**.
- The applicant should indemnify banks against any obligations imposed by **foreign laws (Article 18)**.

The issuing Bank

- Issuing bank is the party acting on behalf of the applicant and should, therefore, ensure itself about the creditworthiness of the applicant.
- The issuing bank gives a definite undertaking to make payment in case of sight and accept and pay on maturity in case of acceptance or deferred payment, to authorize bank to negotiate and to reimburse the negotiating bank, provided that the stipulated documents are presented **under the Letter of Credit (Articles 2, 9)**.

Advising Bank

- The advising bank has option to choose as to whether it wishes to advise a LC or not. If it agrees to advise the LC, then it must do so by taking reasonable care in checking the authenticity of the credit.
- In case, it decides not to advise a LC, then it must inform the issuing bank immediately. If the advising bank is unable to establish the authenticity of LC



then it must immediately inform the issuing bank and must also inform the beneficiary **about the same (Article 9)**.

Confirming Bank

- A confirming bank gives a definite undertaking in addition to that of issuing bank, at the request of the issuing bank, to make payment on presentation of documents as per the terms and conditions of the LC, The confirming bank, advising bank and nominated bank can be the same.
- In case, it does not agree to add its confirmation, it must inform the issuing bank without delay. It may also choose to advise amendments without adding its confirmation, however, intimation must be sent to the **issuing bank and the beneficiary (Article 8)**.

Negotiating Bank

- It is the responsibility of the negotiating bank or nominated bank to examine the documents as per UCP or International Standard Banking Practice (ISBP), and take a decision to negotiate the documents, only if they appear on their face to be in compliance with **the terms and conditions of the LC (Articles 12, 14)**.

Reimbursing Bank

- **Article 13 deals with Bank-to-Bank Reimbursement clause. Reimbursing bank shall be reimbursed by the claiming bank**, the amount of claim lodged, subject to the condition that it has received reimbursement authorisation from the issuing bank and has accepted the same. The reimbursements and all the parties concerned are bound by Uniform Rules for Bank-to-Bank Reimbursements (URR-725) as discussed later in this chapter.

Beneficiary

The beneficiary of the LC also has various rights and responsibilities under Letter of Credit transactions. A beneficiary can in no case avail himself of the contractual relationship existing between the banks or between **the applicant and the issuing bank (Article 4)**.

Protection to Banks

- Banks do not assume any responsibility for genuineness of the documents submitted or any discrimination in the contents mentioned in the **documents (Article 34)**.
- Banks are not responsible for any loss arising due to delay in transmission or loss of messages, documents, or telecommunication. No responsibility is taken by the banks for errors in translation/interpretation of technical terms **(Article 35)**.



- Banks also do not take responsibility for any loss arising due to close of their business by the acts of god, commotions, civil riots, floods or any other causes **beyond their control (Article 36).**

Documents Under LC- Scrutiny, Crystallisation, Follow-up for Bills Under LC and Safeguards For Banks

Document under LC and Scrutiny of Documents

Bill of Exchange

Bills of exchange, being one of the most important financial documents, is drawn by the beneficiary on the LC issuing bank. It envisages the issuing bank to make the payment immediately, if it is drawn a sight or accept and pay on due date, **if it is drawn on acceptance basis. It should, in normal due course satisfy the following requirements:**

- It should be drawn by the beneficiary on the issuing bank and payable at tenor mentioned in the Letter of Credit
- It should indicate the issuing bank's name and Letter of Credit number along under which it is drawn.
- It should, unless and otherwise specified, be drawn in the currency of Letter of Credit and should not exceed the amount of Letter of Credit.
- Any corrections should be duly authenticated.

Invoice

An invoice is a commercial document and is a basic necessity of trade documents. It is prepared by the beneficiary giving details of goods, quantity and value in unit terms, weight and total value of goods. **Following specific points should be kept in mind, while preparing or examining the invoice:**

- It should be made out by the seller/beneficiary, as stipulated in the Letter of Credit.
- It should, unless and otherwise specified in the Letter of Credit, be made out in the name of the applicant/openers of the LC.
- Description of goods must correspond with the description of goods given in the LC.
- Invoice must indicate the order number/contract number/proforma invoice number and number of LC along with issuing bank's name.
- The invoice value should not, invariably, exceed the LC value.
- Terms of sale contract, such as FOB, C&F, CIF, etc., should be indicated in the invoice. Other particulars like Bill of Lading number, shipping marks, import license number (if any), gross weight, net weight, packing details, etc., should also be mentioned in the invoice.



- If invoice is issued for an amount in excess of the amount permitted by credit (when not specifically prohibited by terms of LC), as per Article 18b of UCPDC, the drawing should not exceed the amount mentioned in the LC.

Bill of Lading

Bill of lading is a transport document evidencing movement of goods from the port of acceptance to port of destination. It is a receipt issued by the ship owner or its authorized agent, stating that the goods indicated therein (quantity, quality, description, etc.) are shipped on specific date and through specific vessel and deliverable to the person mentioned therein as the consignee or to his order, after payment of all dues to the shipping company.

- The bill of lading should be in complete set of negotiable copies, along with a number non-negotiable copies, as stipulated in the Letter of Credit.
- It should bear the signature of the ship owner or its authorised agent.
- The description of goods should correspond with the requirements in terms of Letter of Credit and as mentioned in the invoice.
- Bill of lading should bear the Letter of Credit number along with the name of the issuing bank.
- Payment of freight should be clearly indicated in the Bill of Lading, as per the requirement of the Letter of Credit.
- The Letter of Credit should call for "shipped on board" Bill of Lading, and accordingly, the BL should bear such clause.
- It should be drawn to the order of the shipper, blank endorsed or in favour of the issuing bank, as stipulated in the Letter of Credit.
- The date of shipment should be within the date stipulated in the Letter of Credit
- Partial shipments or trans-shipment, if permitted in the Letter of credit should be clearly indicated in the Bill of Lading.
- The gross weight, net weight should be as indicated in the invoice.
- The BL should not generally be dated prior to the date of issuance of LC, unless specifically provided therein.
- The BL should not be claused, unless specifically permitted under the LC.

Insurance Policy/Certificate

- It must be issued and signed by the insurance company or their agents. (Article 34a)
- It should not be issued by the broker. (Article 34b)
- The date of issuance of insurance must be on or before the date of shipment or it must be endorsed by specific notation that the cover is effective from the date of shipment. (Article 34c)
- The currency of issuance must be same as the currency of LC. [Article 34f(i)]



- Unless otherwise specified, it should be issued for an amount of 110% of CIF/CIP value of goods. (Article 34f(ii))
- The policy should clearly indicate the voyage it is covering, i.e., the port of shipment, port of destination and should also mention the point of termination of insurance coverage.
- Claims should be made payable in the country of applicant.
- All originals (if issued more than one) must accompany the documents.
- The policy must be blank endorsed.
- The description of goods in the insurance policy/certificate should be in conformity with that given in the LC.

Certificate of Origin

- Certificate of origin determines the origin of goods. It must be issued and signed by an independent authority, such as Chamber of Commerce, informing origin of goods, value, invoice number, Bill of Lading number, etc.
- Details appearing in the certificate of origin must be consistent with other documents. It must be ensured that origin of goods is not from any war-fighting country, i.e., consisting of banned hazardous goods

Crystallisation of Foreign Currency Liability

- **The issuing bank on receipt of documents drawn under its Letter of Credit, has an obligation to pay immediately**, if the documents are drawn at sight or accept and agree to pay on due date, if the documents are drawn on acceptance basis, provided the documents are drawn strictly as per the terms of the LC.

Follow-up of Bills under LC

- **As per the extant guidelines, the foreign currency liability of import bill drawn under LC**, is crystallised into Indian rupees on a stipulated day as per individual Bank's policy after receipt of documents at the counters of the issuing bank, in case of sight bills and on due date, in case of usance bills.
- In case the importer has been sanctioned import loan facility, the rupee liability is debited to the loan account.

Evidence of Import by the Importer

- Authorized dealers, while opening Letter of Credit for their importer clients or effecting payment for imports, shall take an undertaking from the importer that they shall submit exchange control copy of Bill of Entry within the prescribed period.
- The submission of Bill of Entry, duly approved by the customs ascertains that there is actual import of goods in the country.

Safeguards for Banks



- Every bank has its own internal guidelines for sanctioning Letter of Credit facility to their importer client. Since the transaction involves overseas payments and movement of goods. Reserve Bank of India has advised banks to have thorough and clear-cut guidelines while sanctioning such facility.
- The importer clients should be well-versed with, the trade, for which he is importing goods and banks are required to follow due diligence and 'Know Your Customer' guidelines meticulously.

Standby Letter Of Credit (Similar To Guarantees)

International trade has been dominated by LC transactions, whereby the seller is assured of payment by submitting documents in compliance and conformity with the terms and conditions of the letter of credit. Standby Letter of Credit has often been used in situations where there is non-performance' or to put it in a layman's word, almost a substitute of guarantee. The usage of standby LC is mostly witnessed in countries like the USA, where guarantees are not used, and standby LC acts as a substitute for guarantee. This type of Letter of Credit is opened by banks in countries, where there is restriction on issuance of guarantees and therefore standby LCs provide a suitable substitute for performance or financial guarantees. The documents required are bare minimum, like proof of delivery of goods, proof of non-performance or simple claim form. However, until very recently, its usage was very much restricted in India, but, with several measures being adopted to liberalise the trade regulations and simplify procedures for imports, the Reserve Bank of India, has approved to adopt International Standby Practices (ISP-98), a set of rules, relating to standby LCs, formulated by International Chamber of Commerce in 1998. As such, it is now in order for the authorised dealers to issue stand by LCs, either under ISP-98 or UCPDC-600, as agreed upon mutually by the parties concerned.

Usage of Standby LC by Authorized Dealers

Banks can establish stand-by LC for the following transactions:

As a document of promise in respect of non-performance' situation especially as a substitution to the guarantees which Authorized Dealers are permitted to issue under FEMA, 1999, such as issuing a guarantee in respect of any debt, obligation or other liability incurred by:

- An exporter on account of exports into India.
- Owed to a person resident in India by a person resident outside India for a bona fide trade transaction, duly covered by a counter guarantee of a bank of international repute/resident abroad.
- Exporters may also opt to receive stand by LC in respect of exports from India.

Commercial Standby LC for Import of Goods



Banks have been permitted by Reserve Bank of India, to issue standby LCs towards import of goods into. Since standby LCs covering import of goods are susceptible to certain attendant risks in the absence of evidence of shipment/insurance cover, importers should be advised and explained of the risk factors involved/chances of abuse in acceding to the request for establishment of standby LCs for import of goods into India. **The following safeguards may be taken where standby LCs are issued:**

The facility of issuing commercial standby may be extended on a selective basis and to the following categories of importers only:

- Where such standbys are required by applicants, who are independent power producers/importers of crude oil and petroleum products.
- Special category of importers, viz. Export House/Trading/Star Trading House/Super Star Trading house/100% EOUs.
- Public sector Units/Public Limited Companies with good track record.

Implications of some of the Articles of ISP-98

Before issuing Stand-by LC, the bank as well as the opener/applicant must understand the implications of the clauses of the ISP-98, detailed as under:

- **Article 1.02:** ISP-98 Rule supplements the applicable law to the extent not prohibited by that law. Hence, if there is any provision in the rule which conflict with the Indian law, such provision would not be applicable.
- **Article 1.09:** Business Day - Business day means a day on which the place of business at which the relevant act is to be performed is regularly open; and Banking Day means a day on which the relevant bank is regularly open at the place at which the relevant act is to be performed.
- **Article 3.13.** Expiration Date on Non-Business Day.
- **Article 3.14:** Closure on a Business Day and authorisation of another reasonable place for presentation
- **Article 5.01:** Timely Notice of Dishonour - The article provides for timely notice of dishonour as per the provisions contained therein.
- **Articles 10.0 and 10.02** relating to syndication/participation under the standby LC may be taken note of by the banks issuing such standbys under syndication/consortium loan arrangements among authorised dealers.

Uniform Rules for Bank-To-Bank Reimbursements (URR-725)

Reimbursement of the value of documents negotiated. The International Chamber of Commerce has Banks, while issuing Letter of Credit, incorporate a clause authorising the negotiating bank to claim brought out the uniform rules for bank-to-bank reimbursement, set out in ICC Publication No. 725. The responsibilities of issuing bank, claiming bank, reimbursing bank and all other related parties, as incorporated in the Letter of Credit, have been specified in said rules.



General Provisions and Definitions

Application of URR

- Following standard clause should be incorporated in the reimbursement authorisation by the issuing bank that it sends to reimbursing bank, to bind all the parties concerned. drawn under Documentary Credits, ICC Publication No. 725. This means that reimbursing bank is bound by all the rules set up in URR, by accepting reimbursement instructions. The claiming bank is, however, not a party to it and the arrangement of reimbursement is solely between the issuing bank and reimbursing bank.

Definitions

- **Issuing bank:** The bank that has issued the letter of credit and provided reimbursement authorisation.
- **Reimbursing bank:** The bank having accepted the reimbursement authorisation instructions from the issuing bank provides reimbursement.
- **Claiming bank:** The bank that pays and incurs a deferred payment undertaking accept draft(s) or negotiates under a credit and presents a reimbursement claim to the reimbursing bank.
- **Reimbursement authorization:** Instructions/authorization, independent of the credit, issued by issuing bank to a reimbursing bank to reimburse the claiming bank.

Reimbursement Authorizations

- The reimbursing bank is no way concerned or bound by any provisions incorporated in the Letter of Credit even if any reference has been made in the reimbursement authorisation of any terms and conditions of the Letter of Credit. The reimbursement authorisation is totally a separate transaction from the credit.

Liabilities and Responsibilities

- The issuing bank is responsible for providing information required to the reimbursing bank under these rules.
- The issuing bank must not request a certificate of compliance to be submitted by the claiming bank these rules to reimbursing bank.
- The reimbursement authority must not have an expiry date.

International Standard Banking Practice - 745 (ISBP 745)

The ISBP (full title: International Standard Banking Practice for the Examination of Documents under Documentary Credits) is an ICC publication which provides important guidance regarding the examination of documents presented against letters of credit. It is important to note that the ISBP cannot in any way change the UCP 600



rules which apply to letters of credit, but it is nonetheless a valuable companion guide to UCP.

ISBP was initially approved by the ICC in 2002 and this first version acted as a companion guide to Uniform Customs and Practice (UCP) 500 which were the current rules that governed letters of credit at that time,

When the rules were revised to UCP 600 in July 2007, the ISBP was duly updated by the ICC publication No.681, thus aligning the ISBP with the newly updated UCP.

A fully revised version of ISBP, ICC publication 745 was published in July 2013. This entailed a substantial update to the former version and includes a number of both new and reworded interpretations as well as some significant additions resulting from various official opinions published by the ICC. ISBP has therefore become an absolutely essential publication for anyone who is involved in letters of credit.

The objective of ISBP is given below:

- To encourage a uniformity of practice worldwide to reduce the number of credits rejected by banks owing to discrepancies.
The ISBP provides practices that should be applied by documentary credit practitioners helping to reduce discrepant presentations.

Incoterms

Parties to contract are, often, not aware of different trade practices in their respective countries which can cause misunderstanding resulting in unnecessary disputes. As such ICC published a set of international rules for the interpretation of trade terms known as “**Incoterms**” The ICC publication on Incoterms has been updated several times, with latest version being Incoterms-2010. The full form of Incoterms “International Commercial Terms”.

Incoterms apply to contract of sale but not contract of carriage. They deal only with the relationship between seller and buyer. These can be broadly classified into four categories. Some of the incoterms are

(a) Departure:

- (i) Ex-works (named place) e.g. Ex-works Jamnagar, or Ex-works Pune.

(b) Main Carriage Paid:

- **CFR: Cost** and Freight (named port of destination) e.g. CFR JNPT, CFR Chennai
- **CIF: Cost, Insurance and Freight** (named port of destination) e.g. CIF JNPT, or CIF Chennai port
- **CPT: Carriage Paid To** (named place of destination) CPT Dubai
- **CIP: Carriage and Insurance Paid to** (named place of destination) CIP Dubai

(c) Main Carriage Unpaid:



- **FCA** Free Carrier (named place) FCA Mumbai
- **FAS:** Free Alongside Ship (named port of shipment) FAS, Mumbai port
- **FOB:** Free On Board (name port of shipment) FOB, Mangalore

(d) Arrival:

- **DAT**-Delivered At Terminal (named terminal at port or place of destination) DATS
- **DAP** - Delivered At Place (named place of destination) DAP Sharjah
- **DDP** Delivered Duty Paid (named place of destination) DDP Sharjah

Case Study

Case 1. Case of Date of documents

Bank A issues LC dated 1.10.2016, in favour of a beneficiary in UK. The last date of shipment as per LC is 15.10.2016 and last date of negotiation 31.10.2016.

The beneficiary presents documents to Bank B, for negotiation on 05.10.2016, with documents evidencing shipment of goods on 30.09.2009, which sends the documents to the opening bank, asking to reimburse as per LC terms.

The opening bank, on receipt of documents notices that, the shipment was made on 30.09.2009 and the invoice was dated 2.09.2016, while the inspection certificate, analysis certificate and packing list were dated 25.09.2016.

The issuing bank on receipt of documents rejected the documents, notifying discrepancy that documents were dated prior to date of credit.

Article 14(i), specifically provides that documents could be dated prior to the date of LC, but should not be dated after the date of presentation.

While, the LC is silent about the date of documents, documents presented need to be dated as per LC terms, if so provided in the LC.

As such, assuming that the LC did not provide for dates of the documents, the rejection by the opening bank is not as per UCPDC. Hence as per Article 14(1), the negotiating bank has acted correctly and there is no discrepancy in the documents presented by the beneficiary/exporter.

Case 2. Notice of Dishonor

The LC issuing bank on receipt of documents on 07.03.2017 (Tuesday) took two days to examine the same and referred the documents to the applicants for their acceptance on 09.03.2017 (Thursday). The applicants came up with a discrepancy in documents, on 14.03.2017 (Tuesday) evening, stating that the documents need to be rejected as the BL was not stamped with "On board" stamp and initialed by the shipping company.



The issuing bank sent a Swift message of rejection to the negotiating bank on 15.03.2017.

On receipt of Swift message from the issuing bank, informing rejection of documents and discrepancy, as informed by the applicant, the negotiating bank referred the matter back to the opening bank stating that the message of refusal and notification of discrepancy was not received within the time period of 5 working days, and as such claimed to be reimbursed as per LC terms.

Article 16d of UCP states that the notice of refusal and discrepancy must be given latest by the closing hours of the 5th working day from the date of presentation. In the instant case, the opening bank was correct in sending the swift message on 15.03.2017, which was 5th working day, subsequent to the date of receipt of documents.

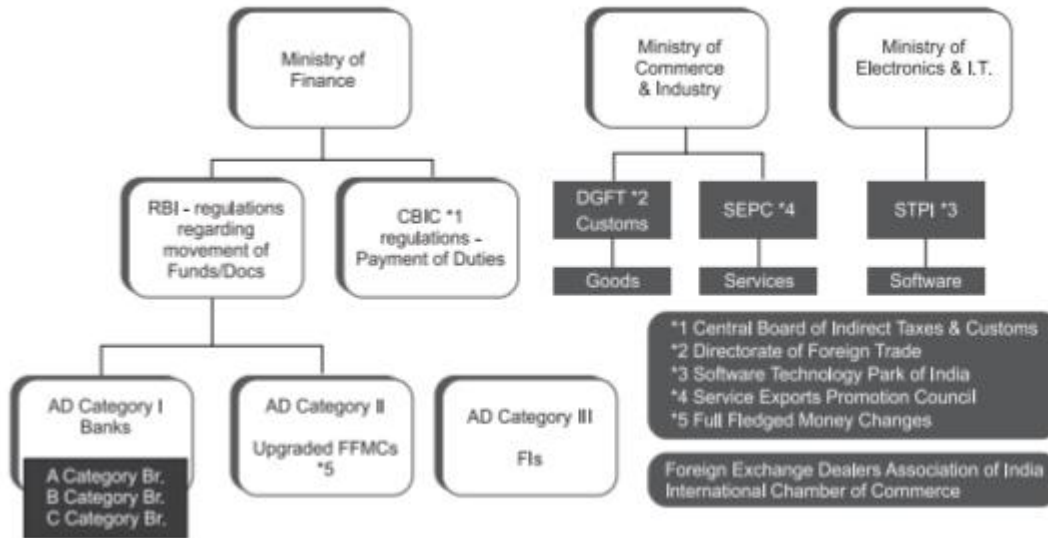
Since, 11th and 12th were Saturday and Sunday and 13.03.2017, being a holiday in India, on account of Holi, the opening bank was right in sending the notice of refusal/discrepancy on 15.03.2017, which was in compliance with the meaning of the said article.

CAIIB BFM Module A Unit 5: Facilities for Exporters and Importers

Introduction

In India, export trade is regulated by the Director General of Foreign Trade (DGFT), which functions under the Ministry of commerce and Industries, of Government of India. While the policies and procedures granted under FEMA regulations are governed by the RBI regulations/guidelines. Similarly, import trade is also governed by DGFT, with regulations relating to imports and other payments, as provided under FEMA, are governed by RBI regulations.

Exchange Control regulations as well as Imports and Exports Trade Control regulations are applicable to all transactions related to international trade. **The Reserve Bank of India, with powers delegated under FEMA 1999, regulates the Exchange Control and receipts/payments of foreign exchange part through various guidelines,** FEMA amendments, while the office of the Director General of Foreign Trade (DGFT), regulates the Trade Control part, through the EXIM Policy and periodic announcements with a view to expand or control the international business of the country.



Exchange and Trade Control Guidelines For Exporters

Importer-Exporter Code Number

Every person/firm/company engaged in Export-Import trade has to apply for and obtain an importer exporter Code Number (IEC Number) from the Director General of Foreign Trade (DGFT). This is a registration number of the firm/company for international trade and the exporter/importer has to invariably quote this code number in all declarations/forms, etc., a few of which are explained below:

Export Declaration Forms

Section 7(1), (3) of FEMA, all export of goods from India, **whether in physical form or any other form**, requires to be declared in the prescribed forms to the effect that full value of exports will be realized within the prescribed period and in the prescribed manner. The prescribed forms are EDF and SOFTEX forms which are used for the purposes noted below:

(i) EDF Form :	Exports other than software made by all modes.
(ii) SOFTEX Form :	Export of software in non-physical form. With the introduction of Electronic Data Interchange (EDI) system at certain Customs offices, where shipping bills are processed electronically, the GR form has since been replaced by a declaration in form EDF (Electronic Declaration Form). The EDF form should be submitted in duplicate (to be annexed to the relative shipping bill) to the concerned Commissioner of Customs. After verifying and authenticating the declaration in form EDF, the commissioner of customs will handover to the exporter one copy of the shipping bill marked 'Exchange Control Copy' in



	which form EDF has been approved for being submitted to the authorized dealer.
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Exemptions

Following exports/shipments out of India are exempted from Export Declaration Forms, **in terms of the cases indicated in Regulation 4 of Foreign Exchange Management (Export of Goods and Services) Regulations dated January 12, 2016:**

- (a) Trade samples of goods and publicity material supplied free of payment;
- (b) Personal effects of travellers, whether accompanied or unaccompanied;
- (c) Ship's stores, trans-shipment cargo and goods supplied under the orders of Central Government of such officers as may be appointed by the Central Government in this behalf or of the military, naval or air force authorities in India for military, naval or air force requirements;
- (d) By way of gift of goods accompanied by a declaration by the exporter that they are not more than five lakh rupees in value;
- (e) Aircrafts or aircraft engines and spare parts for overhauling and/or repairs abroad subject to their reimport into India after overhauling/repairs, within a period of six months from the date of their export;
- (f) Goods imported free of cost on re-export basis;
- (g) The following goods which are permitted by the Development Commissioner of the Special Economic Zones, Electronic Hardware Technology Parks, Software Technology Parks or Free Trade Zones to be re-exported, namely:
 - Imported goods found defective, for the purpose of their replacement by the foreign suppliers/ collaborators;
 - Goods imported from foreign suppliers/collaborators on loan basis;
 - Goods imported from foreign suppliers/collaborators free of cost, found surplus after production operations

goods listed at items (1), (2) and (3) of clause (i) to be re-exported by units in Special Economic Zones, under intimation to the Development Commissioner of Special Economic Zones/concerned Assistant Commissioner or Deputy Commissioner of Customs;

(h) replacement goods exported free of charge in accordance with the provisions of Foreign Trade Policy in force, for the time being;

(i) goods sent outside India for testing subject to re-import into India;

(j) defective goods sent outside India for repair and re-import provided the goods are accompanied by a certificate from an authorised dealer in India that the export is for



repair and re-import and that the export does not involve any transaction in foreign exchange;

(k) exports permitted by the Reserve Bank, on application made to it, subject to the terms and conditions, if any, as stipulated in the permission.

Prescribed Time Limits

For Submission of Export Documents

- **The exporter is required to submit the export documents, along with the duplicate/exchange control copy of EDF form within 21 days from the date of export**, or from the date of certification of the SOFTEX form: to an authorised dealer, for collection, purchase, discount or negotiation, as the case may be, provided that, subject to the directions issued by the Reserve Bank from time to time, the authorized dealer may accept the documents pertaining to export submitted after the expiry of the specified period of 21 days, for reasons beyond the control of the exporter.

For Realisation of Export Bills

It is obligatory on the part of the exporter that the amount of exports is realized and repatriated into India, within the stipulated time period.

The amount representing the full export value of goods/software/services exported shall be realised and repatriated to India within **nine months** from the date of export.

- The Reserve Bank may for reasonable and sufficient cause direct that the said exporter/s shall cease to be governed by sub-regulation (2);
- Provided that no such direction shall be given unless the unit has been given a reasonable opportunity to make a representation in the matter.
- On such direction, the said exporter/s shall be governed by the provisions of sub-regulation (1) until directed otherwise by the Reserve Bank.

Prescribed Method of Payment

The amount representing the full export value of the goods exported shall be received through an AD Bank in the manner specified in the Foreign Exchange Management (Manner of Receipt & Payment) Regulations, 2016 notified vide Notification No. FEMA.14 (R)/2016-RB dated May 02, 2016. Every receipt in foreign exchange by an authorized dealer, whether by way of remittance from a foreign country or by way of reimbursement from his branch or correspondent outside **India against payment for export from India, or against any other payment, shall be as mentioned below:**

- Form of bank draft, pay order, credit to Exporter Bank's Nostro account, Inward Remittance, etc.
- Foreign currency notes, travellers checks from the buyer.



- Payment out of FCNR, NRE account of the buyer.
- Through International credit cards, when goods are sold during the overseas visit of the exporter concerned.
- In Indian rupees, when transaction are with persons resident in Nepal.
- In the form of gold/silver/platinum by gem and jewellery units situated in SEZs, provided the contract provides for the same.

Facilities for Exporters - Facilities/Remittances Connected With Exports

Agency Commission on Exports

Agency commission can be allowed either by remittance or deduction from invoice value by the ADS subject to the condition that:

- it has been declared in the relative EDF/SOFTEX form, and accepted by the customs authorities, and that the relative shipment has already been made. In cases where the commission has not been declared on EDF/SOFTEX form, remittance may be allowed after satisfying the reasons adduced by the exporter for not declaring commission on Export Declaration Form, provided a valid agreement/written understanding between the exporters and/or beneficiary for payment of commission exists.
- The relative shipment has already been made.

Reduction in Invoice Value

- **Exporters may allow reduction in invoice value, on account of cash discount to overseas buyers, for prepayment of usance bills.** The discount can be allowed for the unexpired period at the stipulated rate of interest or a LIBOR of the currency.

Claims Against Exports

- Banks can allow claims against export bills, provided the relative export proceeds have been realized and repatriated to India, and the exporter is not in the caution list of the Reserve Bank of India.

Refund of Export Proceeds

- Refund of export proceeds can be allowed by the AD, through whom the proceeds of the export bill were originally received, provided the exporter has submitted the evidence of re-import of goods into India on account of poor quality, trade dispute, etc.

Extension of Time Limit

- **If the export bill is not realized within the prescribed period, for reasons beyond control,** the exporter is required to make an application in form ETX to



the AD, which has handled the export bill, and seek extension of time limit for realization of export proceeds.

Write off of unrealized export bills

- An exporter who has not been able to realize the outstanding export dues despite best efforts, may either self-write off or approach the AD Category - I banks, who had handled the relevant shipping documents, with appropriate supporting documentary evidence.
- RBI has prescribed limits and conditions for self write off as well as write off by A.D.s, which should be adhered to

Effective Date of Realization

- In terms of FEDAI rules, the effective date of realization of an export bill is the date of credit in the bank's '**NOSTRO**' account in case of **Foreign Currency bills**, and in case of Rupee bills the effective date of realisation is the date of **debit in the 'VOSTRO' account**.
- As such, in case of foreign currency bills, the value date of credit is taken as the date of credit and interest charged up to this date on advance allowed against the particular export bill.

Foreign Currency Accounts

- Overseas Foreign Currency Account
- Diamond Dollar Account (DDA)
- EEFC Account

Export Finance

The Reserve Bank of India has framed specific guidelines for finance to exporters, so as to allow finance at concessional interest rates, to make exporters compete with their competitors from other countries, and also to boost the exports from the country. **The RBI first introduced the scheme of Export Financing in 1967.** The scheme is intended to make short-term working capital finance available to exporters at internationally comparable interest rates. Export credit is available both in rupee as well as in foreign currency.

The Reserve Bank of India has also permitted banks to allow both Packing credits as well as post-shipment advances to exporters in Indian rupees as well as in foreign currencies.

Let us see the rules related to rupee advances first, before going to the foreign currency export credit to exporters.

Pre-shipment finance can be of two types:

- Packing Credit (EPC or PCL).



- Advance against Govt. receivables, i.e. Duty Drawback, etc.

Post-shipment finance can be of various types, as under:

- Export bills purchased/discounted/negotiated (FBP/FBD/FBN).
- Advance against bills sent on collection.
- Advances against exports on consignment basis.
- Advances against undrawn balances.
- Advances against Duty Drawback.

Pre-Shipment Finance

As given above, pre-shipment finance, generally known as **Packing Credit Loan (PCL) or Export Packing Credit (EPC)**, is essentially a working capital advance allowed for the specific purpose of procuring/ processing/manufacturing of goods meant for export. It could cover all costs prior to shipment of finished goods, i.e. packing, local transportation, labour charge, etc.

A. Pre-sanction

- The borrower is bank's customer.
- They should have Export/Import Code number (IEC) allotted by Director General of Foreign Trade.
- Their name should not appear under the caution list of RBI.
- They should not be under the Specific Approval list of ECGC.
- They have the capacity to execute the order within stipulated time and has a genuine and valid export order or Letter of Credit for export of goods.
- All 'Know Your Customer' guidelines are complied with.

B. Post-sanction

- No PCL has been availed by him against the same order/LC from any other bank. For this reason only, the Bank which has granted the Pre-Shipment facility should note the fact of its credit facility on the reverse side of the original LC or original Contract so that it is a warning to any other bank which is handling the exporter's documents.
- Bank should call for Credit Report/Status Reports on the foreign buyers.
- The exporter should submit stock statements for the goods on which PCL has been allowed.
- If the exports are covered under letters of credits, banks would need to be satisfied about the standing of the credit opening bank.
- Banks may also look into the regulations, the political and financial conditions of the buyer's country.

C. Special Cases for allowing Packing Credit Advances



(a) Packing credits can be allowed to sub-suppliers also at the first stage under the Rupee credit scheme. Packing credit can be granted on the basis of the inland LC opened by a bank at the request of the Export Order holder.

(b) Banks have been authorized to grant pre-shipment advances for exports of any commodity without insisting on prior lodgment of letters of credit/firm export orders under 'Running Account' facility subject to the following conditions:

- The facility may be extended, provided the need for 'Running Account' facility has been established by the exporters to the satisfaction of the bank.
- The banks may extend the 'Running Account' facility only to those exporters whose track record is good.

Post-Shipment Finance

Post-shipment finance is essentially an advance against receivables, which are in the form of export. It Post Shipment Finance involves handling of export documents, sending the documents to the foreign bank and collecting the funds thereof. involves handling of exports, sending it to the foreign bank/buyer and collecting proceeds thereof.

The responsibility of an AD is increased in the post-shipment part, since the realisation of export proceeds of the export bills is monitored by the Reserve Bank of India.

A.Export bills purchased/discounted

- The export bills, representing genuine trade transactions, strictly drawn in terms of the sale contract firm contract/order may be discounted or purchased by the banks, against proper sanctioned limits.
- The bills drawn on sight basis, i.e. Documents against Payment, are purchased and those drawn on usance i.e. Documents against Acceptance basis, are discounted by the bank.

B.Export bills negotiated

- **Negotiation of documents takes place, when export documents, drawn under Letter of Credit, are presented to the bank and financed by the bank.** These documents should be scrutinized carefully with the terms and conditions of the LC, before negotiation, since the LC issuing bank undertakes to honour its commitment to pay/accept/reimburse, only, if the beneficiary submits the stipulated documents conforming to terms of LC.
- Further, as the operation of Letter of Credit is governed by Uniform Customs & Practices for Documentary Credits (2007 Revision) of the International Chamber of Commerce.



C. Advances against bills sent on collection basis

- In some cases the bills will be sent on collection basis, either when the export credit limits are fully utilized, or in cases when the bills, drawn under LC, are discrepant or even when, the exporter himself requests for sending the bills on collection basis, in order to delay the realisation in anticipation of the strengthening of the foreign currency.

D. Advances against exports on consignment basis

- Goods are exported on consignment basis for approval and sale abroad and remittance of sale proceed by agent/consignee at the risk of the exporters. Under such type of exports, the sale proceeds are remitted for the part of goods sold, and in case of unsold goods, goods are sent back to the exporter.
- The overseas branch/correspondent of the bank is instructed to deliver the documents to title of goods, to the consignee, against Trust Receipt.

E. Advances against undrawn balances

In certain line of export trade, it is the practice of the exporter to leave a part of the amount unpaid for some time, as undrawn balances, which is settled by the buyer after satisfying himself about the weight, quality, etc., on arrival and inspection or analysis of the goods.

Authorized dealers can handle such bills, provided the undrawn balance is in conformity with the normal level of balance left undrawn in the particular line of export trade, subject to a maximum of 10% of the full export value.

F. Advances against duty drawback

- In case of certain commodities, particularly engineering items, the domestic cost of production is higher in relation to international prices, due to which the exporters of such commodities are given support from the government, to make them competitive in the overseas market.

Crystallization of Overdue Bills

- All export bills drawn in foreign currency, purchased, discounted or negotiated, enter into the forward foreign currency position of the bank, and the liability of the exporter is to realise the same by the given due date and deliver the foreign currency to the bank.
- In case of non-realisation of export bill by the given due date, the foreign currency liability of the exporter would continue, till the bill is realized or the liability is converted into the home currency, i.e., Indian rupee in our case, and liability fixed for the exporter.

Export Credit in Foreign Currency



- India have been permitted to extend export credit in foreign currency to its exporter clients, at LIBOR With a view to make credit available to exporters at internationally competitive interest rates, banks in linked rates.

Gold Card Status for Exporters

Based on the indications made by the government (Ministry of Commerce and Industry), in the Foreign Trade Policy 2003-04 to launch a Gold card scheme for creditworthy exporters with good track record for easy availability of export credit on best terms, the RBI, in consultation with select banks and exporters, has drawn up a gold card scheme, which envisages certain additional benefits based on the record of performance of the exporters. The gold card holder would enjoy simpler and more efficient credit delivery mechanism in recognition of his good track record.

The salient features of the scheme are:

- All creditworthy exporters, including those in small and medium sectors, with good track record would be eligible for issue of Gold Card by individual banks as per the criteria to be laid down by the latter.
- Gold Card under the Scheme may be issued to all eligible exporters including those in the small and medium sectors who satisfy the laid down conditions,
- The scheme will not be applicable for exporters blacklisted by ECGC or having overdue bills in excess of 10% of the previous year's turnover.
- Gold Card holder exporters, depending on their track record and credit worthiness, will be granted better terms of credit including rates of interest than those extended to other exporters by the banks.
- Applications for credit will be processed based on simpler norms and under a process faster than for other exporters.
- Banks would clearly specify the benefits they would be offering to Gold Card holders.
- The charges schedule and fee-structure in respect of services provided by banks to exporters under the Scheme will be relatively lower than those provided to other exporters.
- The sanction and renewal of the limits under the Scheme will be based on a simplified procedure to be decided by the banks. Taking into account the anticipated export turnover and track record of the exporter the banks may determine need-based finance with a liberal approach.
- 'In-principle' limits will be sanctioned for a period of 3 years with a provision for automatic renewal subject to fulfilment of the terms and conditions of sanction.
- A stand-by limit of not less than 20% of the assessed limit may be additionally made available to facilitate urgent credit needs for executing sudden orders. In the case of exporters of seasonal commodities, the peak and off-peak levels may be appropriately specified.



- In case of unanticipated export orders, norms for inventory may be relaxed, taking into account the size and nature of the export order.
- Requests from card holders would be processed quickly by banks within 25 days/15 days and 7 days for fresh applications/renewal of limits and ad hoc limits, respectively.
- Gold Card holders would be given preference in the matter of granting of packing credit in foreign currency.
- Banks would consider waiver of collaterals and exemption from ECGC insurance on the basis of card holder's creditworthiness and track record.
- The facility of further value addition to their cards through supplementary services like ATM, Internet banking, International debit/credit cards may be decided by the issuing banks.
- The applicable rate of interest to be charged under the Gold Card Scheme will not be more than the general rate for export credit in the respective bank. In keeping with the spirit of the Scheme, banks will endeavour to provide the best rates possible to Gold Card holders on the basis of their rating and past performance.
- Gold Card holders, on the basis of their track record of timely realization of export bills, will be considered for issuance of foreign currency credit cards for meeting urgent payment obligations, etc.
- Banks may ensure that the PCFC requirements of the Gold Card holders are met by giving them priority over non-export borrowers with regard to granting loans out of their FCNR (B) funds, etc.
- Banks will consider granting term loans in foreign currency in deserving cases out of their FCNR (B), RFC, etc. funds.

Export Data Processing and Monitoring System (EDPMS)

For better monitoring of export of goods and software and facilitating AD banks to report various returns through a single platform, the Reserve Bank of India has launched a comprehensive IT-based system called Export Data Processing and Monitoring System (EDPMS). The EDPMS has been operationalized with effect from 1st March, 2014.

Features of EDPMS

- AD banks can access the updated list of caution listed exporters through EDPMS on daily basis. Hence, banks can now refer to the updated caution list of exporters on a regular basis.
- RBI will caution/de-caution the exporters based on the recommendation of AD banks. ADs may forward its findings to the concerned regional office of RBI recommending inclusion of the name of the exporter in the caution list. This will require the banks to report cases where the exporter is not traceable or not making any serious efforts for realization of export proceeds.



- The guidelines require banks to record advance remittances received for exports in EDPMS. Besides, banks will also be required to record old outstanding advances received. This would require banks to develop a recording mechanism to ensure that all advances have been captured in the EDPMS.

Factoring and Forfaiting

Besides the regular financing avenues from banks, the exporters also have access to other avenues of financing which also act as risk management products.

Factoring and forfaiting are the two products, which allows the exporters to sell their book debts and raise finance upfront. Let us see how these products work and what benefits accrue to the exporters.

Factoring

Factoring is defined as a continuing agreement between a financial institution (known as “Factor”) and the business concern (the exporter/seller) selling goods or services to track customers on Open Account Basis, whereby the factor purchases the clients' book debts, either with or without recourse to the client and in relation thereto controls the credit extended to the customers and administers the sales ledger.

A factor provides different services, which can be described as under:

- **Debt Administration:** Managing the sales ledger of the client, saving his administrative cost of book keeping, invoicing, credit control and debt collection. This would also include work of following up for the debt collection.
- **Credit Protection:** As professionals, factors, will have the facility for credit intelligence to enable them to assess credit risk and advise their clients accordingly. The database on the individual buyers built up over a period of time, by the factor could be used by the client for a fee.
- **Factor Financing:** While in India financing is an essential activity for a factor, in certain countries it may not be an essential service. Generally, a factor will be willing to advance up to 75-80% of the outstanding debts.

Advantages of Factoring

- Immediate financing up to 75-80% of the invoice value.
- No need for LC, thus saving costs for the importer.
- Credit check on importers/buyers.
- Sales ledger maintenance.
- Credit protection on all approved debtor limits.
- Advisory services for new areas, countries.

Forfaiting

- **Another product for financing of export receivables is Forfaiting.** It can be defined as a mechanism for financing by discounting of export receivables,



without recourse to the exporter/seller, for a medium term, on a fixed rate basis, for the full value of the contract/invoice.

- In another words, forfaiting is the purchase by the financier, of medium term export claims on the buyers, without recourse to the exporters. It is a source of finance and not a type of credit insurance, as such no other costs, other than financing costs are involved in the transaction.

Benefits of Forfaiting to Exporters

- Takes away political and commercial risks associated with export receivables.
- Makes available 100% finance against the invoice drawn.
- Without recourse facility.
- Freedom from credit administration, and follow-up.
- Cost saving on export credit insurance, besides related paperwork.
- Fixed rate financing, freedom from movement of interest rates for the tenor of the bill.

<i>FACTORING</i>	<i>FORFAITING</i>
Suitable for on-going open account sales not backed by LCs or accepted bills of exchange.	Suitable for one-off transactions backed by LCs or accepted (avalised) bills of exchange.
Short term in nature.	Medium to long term in nature (1 to 5 years).
Factoring can be with recourse or without recourse.	Forfaiting is generally without recourse.
Requires continuous arrangement between factor and client, whereby all sales are routed through the factor.	Seller need not route other business through the forfaiter. Deals are concluded transaction-wise.
Factor assumes responsibility of collection and helps client reduce overheads for the same.	Forfaiter's responsibility extends to collection of forfeited debt only.
Charges include those for financing, collection, administration, credit protection and MIS.	Charges include discount and commitment charges.
Factoring is commonly for domestic and international transactional.	Forfaiting is commonly for international transactions only.

Exchange and Trade Control Guidelines for Importers

Keeping in view the need to conserve the precious foreign exchange, and to guard the country from scrupulous imports and bogus outward remittances, various export-import regulations and exchange control guidelines have been prescribed from time to time. While the physical movement of goods into India is regulated by Foreign Trade Policy formulated by the Director General of Foreign Trade (DGFT), the regulations relating to payment of such imports are governed by Exchange Control Regulations framed the basis of **Foreign Exchange Management Act, 1999 (FEMA 1999)**.

- **Importer-Exporter Code (IEC):** As explained earlier, first and foremost, the importer customer has to have a valid IEC, issued by the office of DGFT.



- **Approved commodity:** Freely Permissible or Import licenses: While ADs are required to ensure that the goods imported or intended to be imported are as per the current Foreign Trade policy, the goods can be freely imported, or can be imported under specific license issued for the purpose by the DGFT. This has to be ensured prior to making import remittance, handling of import bills for collection or opening of letters of credit for import of goods. For this purpose, the ADs should verify the Foreign Trade Policy or the public notices issued by the DGFT.
- **Payments for imports:** Any person who wants to make a remittance for imports, should make an application (as prescribed by RBI) to the authorised dealer. The Application should contain the details of the currency, the total value of imports, commodity, the license number, etc., along with an undertaking by the importer that they will comply with the Exchange Control Regulations.

Import Finance

Import Letter of Credit

- **This is the most used method of financing imports. The importer gets LC limits sanctioned from his bank and establishes LC on DA basis (usance),** there by getting credit from the overseas supplier on the strength of his banks credibility (LC).
- At times import LC are also used to generate liquidity, by way of establishing DALCs for commodities, which can be sold immediately on sight basis, or for cash.
- We have seen how Letters of credit work, in earlier unit. LC transaction also support Buyers credit and suppliers' credit, being other modes for financing of imports, are discussed later in this unit.

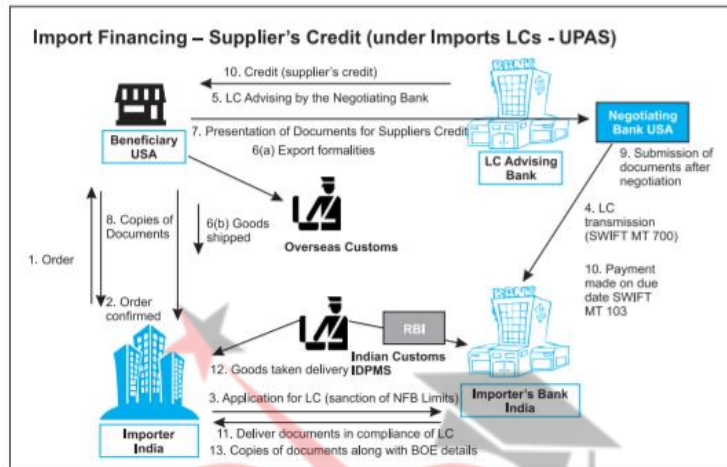
Import Loan

- **Such loans are at times granted against imported raw material, or goods meant for trading.** The loans can be against pledge of goods or hypothecation to the financing bank. Importers prefer such loans, even at higher rates of interest, waiting for the prices of the goods to go up and to take benefit of depreciating domestic currency.

Trade Credit – Supplier's Credit And Buyer's Credit

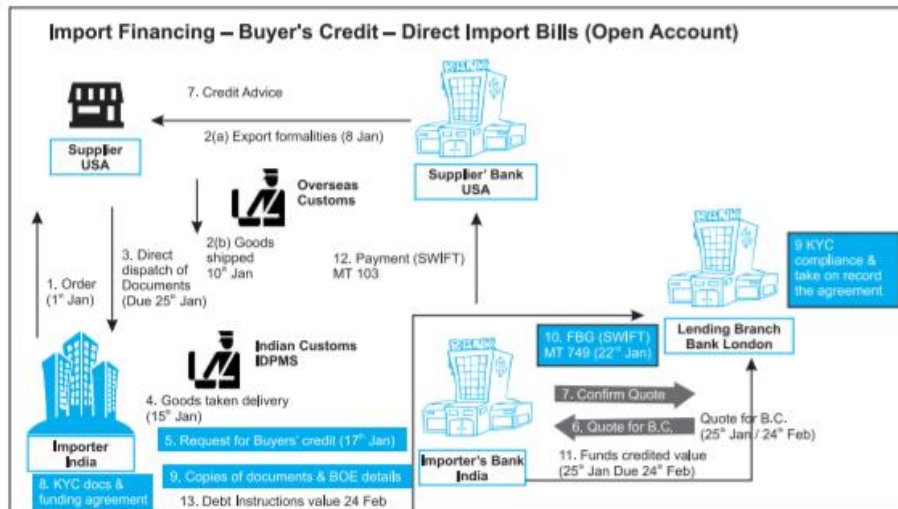
- **Supplier's Credit** Supplier's Credit is credit directly extended by the overseas supplier of goods to the importer. As in domestic markets, in the international markets also, the payment terms are either sight or on credit. The period of credit, normally depends on the necessity for the exporter/seller of the goods to increase sales, the demand of the goods in the market, requirement of the importer and the current market practices.

- The exporter may avail finance against the bills, after making the shipment, from his banker and the bank would receive funds on the maturity date. However, the exporter shall be liable to repay his bank, in case the overseas buyer does not make payment on due date. The period of supplier's credit, reckoned from the date of shipment, is to 3 years for import of capital goods. For non-capital goods, this period is up to 1 year or the operating cycle, whichever is less. The maximum amount of supplier's credit, per import transaction, that banks can approve is USD 50 mn.



Buyer's Credit

- The buyer's credit is credit arranged by the importer (buyer), from a bank/financial institution outside his country, to settle the payment of imports. In short, it is credit arranged by the buyer to settle import payments, irrespective of the period of credit.
- In this type of credit, the supplier of the goods need not worry about the payment, as the payment is assured by the bank/financial institution, provided he completes his responsibility as per the requirement of the buyer. The modus operandi is that, in some cases on one hand the supplier (exporter) is not ready to give any credit (supplier's credit) while the buyer (importer) is also not in a position to make immediate payment.
- As such, the importer approaches his bank and requests for arrangement of payment to the exporter on immediate terms. The bank, through their own resources, or correspondent relationships, ties up with a foreign bank/financial institution, and after agreeing upon on the pricing/costing, makes arrangement to make payment to the exporter on submission of shipping documents. The importer then repays on the due date.
- Like in the case of supplier's credit, the period of buyer's credit, reckoned from the date of shipment, is to 3 years for import of capital goods. For non-capital goods, this period is up to 1 year or the operating cycle, whichever is less. Like supplier's credit, the maximum amount of buyer's credit, per import transaction, that banks can approve is USD 50 mn.



CASE STUDY

1. Total interest on the export bill discounted, will be charged up to;

- (i) notional due date 25.10.2016
- (ii) value date of credit 27.10.2016
- (iii) date of realisation 30.10.2016
- (i) date of credit to nostro account 29.10.2016

Ans. 1: USD 50,000.00 @ 68.20 = Rs. 3,410,000.00 - less 12% for insurance and freight cost i.e Rs. 409200 = Rs.3,000,800.00 (fob value of the order. Less margin 25% i.e. Rs. 750,200.00 balance Rs. 2,250,600.00

Ans. 2: 67.89 - Bill buying rate on 31.8.2008 - 67.85 plus 4 paise premium for 30 days, this being a DA bill.

Ans. 3: USD 48,000.00 @ 67.89 = Rs. 3258720.00 less 15% margin on DA bill, i.e. Rs. 488808.00 = Rs 2,769,912.00

Ans.4: Bill submitted on 31.8.2016, drawn on 30 days DA plus normal transit period of 25 days - 31.8.2016 plus 30 days plus 25 days, i.e. total 55 days from 31.3.2016 i.e. 25.10.2016.

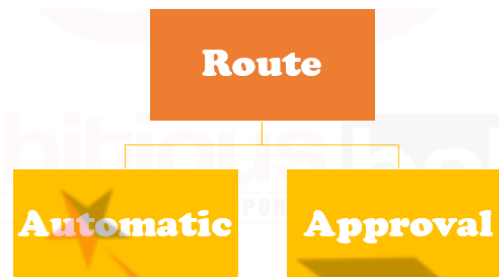
Ans 5: Interest is charged up to the date the funds have been credited to the banks NOSTRO account, the effective date of credit is the value date of credit, i.e. 27.10.2010.

CAIIB BFM Module A Unit 6- External Commercial Borrowings and Foreign Investments in India

Introduction

External Commercial Borrowings (ECBs) are commercial borrowings raised by eligible resident entities from recognized lenders towards medium and long term foreign currency denominated debts including Indian Rupee denominated borrowings with a **minimum average maturity period of 3 years and above.**

The eligible resident Indian entities are also eligible to borrow for periods of less than 3 years, subject to the extant guidelines of the Reserve Bank of India.



Automatic route where the cases will be examined by the Authorized Dealers Category I (AD Cat I Banks).

Approval route, under which prospective borrowers are required to obtain RBI approval by routing their requests through their AD Banks for examination.

FCY Denominated ECB can be in any freely convertible foreign currency and includes bank loans, floating/fixed rate notes/bonds/debentures (other than fully and compulsorily convertible instruments), trade credits beyond 3 years, Foreign Currency Convertible Bonds (FCCBs), Foreign Currency Exchangeable Bonds (FCEBs) and Financial Leases.

INR Denominated ECB, which includes bank loans, floating/fixed rate notes/bonds/debentures (other than fully and compulsorily convertible instruments), trade credits beyond 3 years, Foreign Currency Convertible Bonds (FCCBs), Foreign Currency Exchangeable Bonds.

(FCEBs) and Financial Leases and includes Plain Vanilla Rupee denominated bonds issued overseas which can be either placed privately or listed on exchanges - as per host country regulations.

External Commercial Borrowings – Concepts

Eligible Borrowers

- All entities eligible to receive FDI.
- Entities recognized as Startup by the Central Government as on date of raising ECB.
- Port Trusts, Units in SEZ, SIDBI, EXIM Bank.



- Registered entities engaged in micro-finance activities viz., registered Not for Profit Companies, registered societies/trusts/co-operatives and Non-Government Organizations are permitted only to raise INR ECBs.

End Use

The negative list for which ECB proceeds cannot be utilized would include the following:

- Real estate activities
- Investment in capital market
- Equity investment
- Working capital purposes except from foreign equity holder
- General corporate purposes except from foreign equity holder
- Repayment of Rupee loans except from foreign equity holder
- On-lending to entities for the above activities.

ECBs – Recognized Lenders

- The lender should be resident of FATF (Financial Action Task Force) compliant country or IOSCO (International Organization of Securities Commission) compliant country.
- Multilateral and Regional Financial Institutions where India is a member country will also be considered as recognized lenders.
- Individuals as lenders can only be permitted if they are foreign equity holders or for subscription to bonds/debentures listed abroad.
- Foreign branches/ subsidiaries of Indian banks are permitted as recognized lenders only for FCY ECBs.
- Foreign branches/ subsidiaries of Indian banks, subject to applicable prudential norms, can participate as arrangers/ underwriters/ market-makers/ traders for Rupee denominated Bonds issued overseas. However, underwriting by foreign branches/subsidiaries of Indian banks for issuances by Indian banks will not be allowed

Minimum Average Maturity

Minimum average maturity period (MAMP) will be 3 years, including borrowing by startups.

Category	MAMP
Manufacturing sector companies may raise ECBs up to USD 50 million or its equivalent per financial year.	1 Year
ECB is raised from foreign equity holder and utilized for a. working capital purposes b. general corporate purposes c. for repayment of rupee loans raised domestically for purposes other than capex,	5 years
ECB is utilized for a. working capital purposes or general corporate purposes b. for repayment of Rupee loans availed domestically for non-capex	10 years
ECB is utilized for a. repayment of Rupee loans availed domestically for capex,	7 years
For startups	3 years



All-in-Cost ceiling

- For new ECBs - Benchmark rate plus 500 bps spread.
- For existing ECBs linked to LIBOR whose benchmarks are changed to ARR - Benchmark Rate plus 550 bps spread.
- For INR denominated ECBs - Benchmark rate plus 450 bps spread. Benchmark rate in case of Rupee denominated ECB will be prevailing yield of the Government of India securities of corresponding maturity.
- All-in-cost includes rate of interest, other fees, expenses, charges, guarantee fees, ECA charges, whether paid in foreign currency or INR but will not include commitment fees and withholding tax payable in INR.
- In the case of fixed rate loans, the swap cost plus spread should not be more than the floating rate plus the applicable spread. Additionally, for FCCBs the issue related expenses should not exceed 4% of issue size and in case of private placement, these expenses should not exceed 2% of the issue size, etc.

ECBs – Other Operational Concepts

- Change of currency of ECB from one freely convertible foreign currency to any other freely convertible foreign currency as well as to INR is freely permitted.
- The ECB borrower will be required to cover principal as well as coupon through financial hedges. The financial hedge for all exposures on account of ECB should start from the time of each such exposure (ie., the day liability is created in the books of the borrower).
- All eligible borrowers can raise **ECB up to USD 750 million** or equivalent per financial year under Automatic Route.
- However, entities recognized as Startup by the Central Government can **can raise maximum of USD 3 million or equivalent per financial year.**
- In case of FCY denominated ECB raised from direct foreign equity holder, ECB liability-equity ratio for **ECBs raised under the automatic route cannot exceed 7:1.**
- Issuance of any type of guarantee by Indian banks, All India Financial Institutions and NBFCs relating to ECB is not permitted.
- ECB proceeds meant only for foreign currency expenditure can be parked abroad pending utilization.
- Until utilization of ECB proceeds, funds can be invested in liquid assets
 - ✓ Deposits or Certificate of Deposit or other products offered by banks rated not less than AA (-) by Standard and Poor/Fitch IBCA or Aa3 by Moody's;
 - ✓ Treasury bills and other monetary instruments of one-year maturity having minimum rating as indicated above.
 - ✓ Deposits with foreign branches/subsidiaries of Indian banks abroad.
- ECB proceeds meant for Rupee expenditure should be repatriated immediately for credit to Lender's Rupee accounts with AD Category I banks in India.



- ECB borrowers are also allowed to park ECB proceeds in term deposits with AD **Category I banks in India for a maximum period of 12 months** cumulatively. These term deposits should be kept in unencumbered position.
- Any draw-down in respect of an ECB should take place only after obtaining the LRN from the Reserve Bank on submission of Form ECB.
- The borrowers are required to report actual ECB transactions in Form ECB 2 Return through the AD Category I bank on monthly basis so as to reach RBI within seven working days from the close of month to which it relates.
- Changes in ECB parameters in consonance with the ECB norms, including reduced repayment by mutual agreement between the lender and borrower, should be reported to the RBI through revised Form ECB at the earliest, in any **case not later than 7 days from** the changes effected. While submitting revised Form ECB the changes should be specifically mentioned in the communication.
- **Refinancing of existing ECB:** Refinancing of existing ECB by fresh ECB is permitted, provided the outstanding maturity of the original borrowing (weighted outstanding maturity in case of multiple borrowings) is not reduced and the all-in-cost of fresh ECB is lower than the all-in-cost (weighted average cost in case of multiple borrowings) of existing ECB.
- Foreign branches of Indian banks are permitted to participate in refinancing of existing ECB, only for highly rated corporates (AAA) and for Maharatna/Navratna Public Sector Undertakings.

Reporting Requirements

Loan Registration Number (LRN) –

- ❑ Drawdown of ECBs should happen only after obtention of LRN from the RBI.
- ❑ The borrowers are required to submit Form ECB through the AD Category I Bank who in turn will forward the application to RBI, Department of Statistics and Information Management, External Commercial Borrowings Division for their perusal and issuance of LRN.
- The borrowers are required to report the actual ECB transactions through ECB 2 returns through the AD Category I Bank on a monthly basis so as to reach **within 7 days from the close** of the relevant month.
- Changes, if any, in the ECB parameters, after obtention of the LRN should also be incorporated in the monthly returns.
- Any borrower, who is otherwise in compliance of the ECB guidelines, can regularize the delay in reporting by payment of Late Submission Fees (LSF) for the period of delay and the delays may **range from up to 30 days from** the due date of submission to **beyond 3 years** from the due date of submission.
- The late submission may **also range from Rs. 5,000 to Rs. 1,00,000 per year depending** on the extant delayed submission.

Conversion Of ECB Into Equity



- The activity of the borrowing company is covered under the automatic route of FDI. Conversion should be with the lender's consent and without any additional cost and adhering to the sectoral cap as per the FDI Policy.
- If the borrower has availed any credit facilities from the Indian banking system, all prudential guidelines issued by the Department of Banking Regulation of RBI to be complied with, including consent of other lenders.

Foreign Investments

Objectives

Foreign Investments (FDI & FPI)

- Different modes of Foreign Investments
- Restrictions on Foreign Investments
- Control and reporting

Foreign Investments – Revised Framework

Relevant regulators under the NDI Rules

- Department of Economic Affairs, Fin. Min. notifies Non-Debt Instruments (NDI) rules.
- RBI – Nodal authority for Valuations & Reporting.
- Various Government Ministries – Cases requiring approvals (earlier FIPB)
- DIPP and Ministry of Commerce – formulates FDI Policy

Key changes in the above context

- FIPB abolished in 2019.
- On-line reporting to RBI through AD Banks - filing SMF through FIRMS portal)
- Late submission fee introduced.
- FEMA 20 of 2000., FEMA 20(R), Master directions, replaced with the NDI rules (33 Rules and 10 Schedules)

Key Concepts

Foreign Direct Investment

- Any investment in Equity instruments
- Made by a Person Resident Outside India (PROI)
- On a repatriable basis

(a) In an unlisted Indian company

(b) 10% or more of the paid up equity capital, on a fully diluted, basis in a listed company

(c) In an LLP towards capital contribution [Fully diluted basis means the total number of shares that would be outstanding if all possible sources of conversion are exercised].



- In case an existing investment by a PROI in equity instruments of a listed Indian company falls to a level below 10 percent of the post issue paid-up equity capital on a fully diluted basis, the investment shall continue to be treated as FDI. Once an FDI, always an FDI.

Foreign Portfolio Investment

- Investment made by a PROI in less than 10% of the paid-up equity capital, on a fully diluted basis of a listed company.
- Foreign Portfolio Investor (FPI) means a person registered in accordance with the Provisions of SEBI (FPI) Regulations 2019 wherein FPIs can invest in securities in the primary and secondary markets including shares, debentures and warrants of companies, listed or to be listed on a recognized stock exchange in India.
- The 10 percent limit for foreign portfolio investors shall be applicable to each foreign portfolio investor or an investor group as referred in Securities and Exchange Board of India (Foreign Portfolio Investors) Regulations, 2014.

Downstream Investments (Indirect Foreign Investments)

- Investments in the equity instruments of **another Indian company by an Indian entity (including an LLP)** which has received foreign investment and is not owned and not controlled by resident Indian citizens. In other words, is owned or controlled by person resident outside India.
- Downstream investments also mean Investment by an Investment Vehicle whose sponsor or manager of investment manager is not owned and not controlled by resident Indian citizens. In other words, is owned or controlled by persons resident outside India.
- **Sectoral Cap** - Is the ceiling limit up to which a PROI can subscribe to the Paid-up capital of Indian Investee Company as prescribed under Sector-wise/Activity-wise by Department of Industrial Policy & Promotion, Govt. of India
- If the foreign investment in the investing entity is 50% or more, then the entire downstream investment will be regarded as indirect foreign investment.

Foreign Venture Capital Investments (FVCI) – FVCI is incorporated outside India and can invest in Domestic Venture Capital Fund or a Venture Capital undertaking (Domestic unlisted Company).

They are SEBI registered Investment Vehicle.

- ✓ Foreign investment in Investment Vehicle means it is an entity registered under SEBI., eg,
- ✓ Real Estate Investment Trusts (REITs) governed by the SEBI (REITs) Regulations, 2014,
- ✓ Infrastructure Investment Trusts (InvIts) **governed by the SEBI (InvIts) Regulations, 2014.**



- ✓ Alternative Investment Funds (AIFs) governed by the SEBI (AIFs) Regulations, 2012.

Start-up Company - Start-up Company means a Private Company incorporated under the Companies Act, 2013 or a Registered Partnership Firm or an LLP, recognised as such by the DIPP, Ministry of Commerce and Industry, *Government of India and complying with following conditions:*

- ✓ Start-up recognition will be restricted to 7 years from the incorporation/registration.
- ✓ In case of bio-technology sector, start-up recognition will be up to 10 years.
- ✓ Turnover for any FY since incorporation/registration does not exceed INR 100 crores.
- ✓ The entity is working towards innovation, development or improvement of product or processes or services, or operating on a scalable business model with high potential for employment generation/ wealth creation.

Eligible Foreign Investors

- PROI - Non resident entities, NRIs, OCIs, Foreign Nationals
- NRIs resident in Nepal and Bhutan subject to the inward remittances received in free foreign exchange
- Erstwhile OCBs who are not under the RBI caution list
- Foreign Portfolio Investors
- Foreign Venture Capital Investors

Eligible Investee Entities

- Indian companies as defined under the Companies Act 2013
- Trusts being Venture Capital Funds regulated by SEBI
- LLPs
- Special Investment Vehicles
- Start-up companies

Eligible Investment Instruments

- Fully paid Equity shares.
- Partly paid Equity shares, provided 25% of total consideration is received upfront and balance within 12 months.
- Fully, Compulsorily and mandatorily convertible debentures/Preference shares.
- Share warrants provided at least 25% of consideration is received upfront and balance within 18 months of issuance.
- Convertible notes issued by Startup entities, repayable at the option of the holder or converted into equity within a period not exceeding 5 years from the date of issue of the CN.
- Bonus Shares/Rights Shares/ESOPs.
- Swap of equity instruments (FDI & ODI structure) - NRI owned companies.
- Import of capital goods/machinery.



- Conversion of ECB into equity shares.

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- Import of capital goods/machinery.
- Conversion of ECB into equity shares.
- Import of capital goods/machinery.
- Conversion of ECB into equity shares

Prohibited Sectors

Lottery business including Government, Private and On-line	Gambling and betting including Casinos	Chit Funds	Nidhi Business
Trading in Transferable Development Rights	Real Estate Business, Construction of Farm Houses, etc.	Manufacturing of Tobacco, Cigarettes & tobacco substitutes	Sectors not open to Private investments, eg., Atomic Energy, Railways
	Sectors not open to Private investments, eg., Atomic Energy, Railways	Sectors not open to Private investments, eg., Atomic Energy, Railways	

Rules Governing Pledge of Shares

Any person resident outside India holding equity instruments in an Indian Company may pledge in favor of a Bank in India



- To secure credit facilities being extended to such Indian company.,
- For genuine business purposes.,
- Submission of a declaration/annual certificate from the statutory auditor of the investee company that the loan proceeds will be utilized for the said purpose.

Any person resident outside India holding equity instruments in an Indian Company may pledge in favor of Overseas Bank

- To secure credit facilities being extended to PROI who is the promoter of such Indian company or the overseas group company.,
- Loan is availed only in an Overseas bank.,
- Loan is utilized for genuine business purposes and not for **investments**.,
- Loan proceeds should not result in any capital inflow in to India.,
- Submission of a declaration/annual certificate from the statutory auditor of the investee company that the loan proceeds will be utilized for the said purpose.

Operational Guidelines

Transfer of non-debt instruments

Foreign Direct Investment – Transfer of Non-debt Instruments

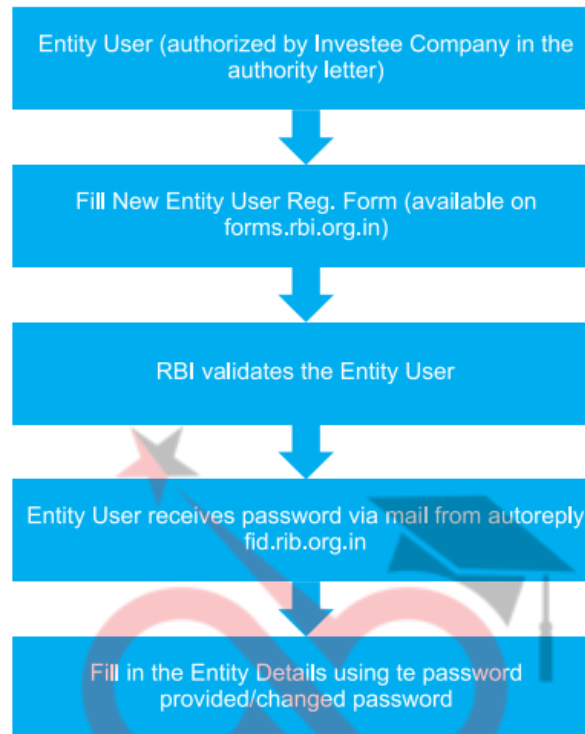
Nature of Transfer	Mode of Transfer	Rule	Pricing Guidelines	Reporting
NR to NR (Excl. NRI/OCI/ OCB)	Sale or Gift	Automatic route (if the FDI is allowed under automatic route)	NA	NA
NR to R	Sale or Gift	Automatic route	Yes	FCTRS
R to NR	Sale	Automatic route. Should comply with FDI guidelines	Yes	FCTRS
R to NR	Gift (Relatives)	RBI approval. (Shall not exceed 5% of paid up capital \$50000 max)	NA	FCTRS
R to NR lender	Pledge	Under ECB; (AD NOC)	NA	NA
NR to R (Bank/ Lender/NBFC)	Pledge	Automatic	NA	NA
NR to NR (Overseas lending bank)	Pledge	Automatic	NA	NA

Escrow a/c is permitted under transfer lending Inward/BG

Process of reporting on FIRMS (Foreign Investment Reporting and Management Systems)

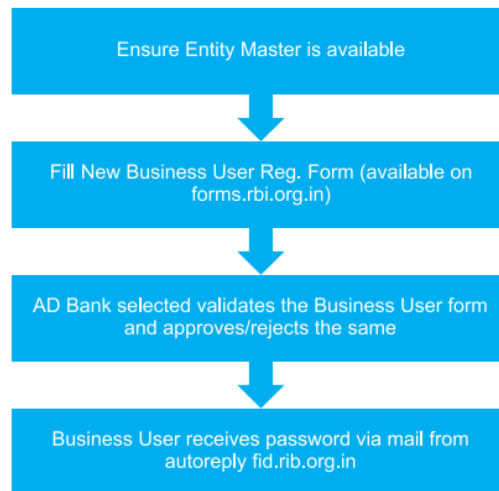
- Process of Reporting on FIRMS – Entity Master
- Entity master creation is independent of AD Bank.
- One entity can have one Entity user only. Changes in entity user will require contact with help desk in “Contact Us” tab of FIRMS portal.
- Email provided in the form should be correct since all communications will be via email from FIRMS system.
- Entity user named in Authorization Letter himself/herself cannot sign the same.

- RBI office having jurisdiction over registered address of the entity will be the governing office approving the Entity User as well as Forms reported in FIRMS.
- Figures of existing shareholding should be correctly captured on fully diluted basis.
- For any technical assistance contact email: helpfirms@rbi.org.in



Process of reporting on FIRMS (Foreign Investment Reporting and Process of reporting on FIRMS – SMF (Single Master Form)

- Process of Reporting on FIRMS – SMF Business User
- Business User creation can happen only if Entity Master is in place.
- Ensure correct IFSC code of the bank is available.
- Authority letter for Business User is not same as that for Entity Master.
- Board Resolution is not required for Business User creation.
- For any resolution in Business User creation, entity has to contact the concerned bank to whom the application was made.
- Forms are available - FC-GPR, FC-TRS, LLP I, LLP II, CN, ESOP, DI, DRR and InVi.



Process of reporting using various reporting forms

Various Reporting Forms			
FORM	PURPOSE	RESPONSIBILITY FOR FILING	TIMEFRAME
Foreign Currency - Gross Provisional Return (FC-GPR)	<ul style="list-style-type: none"> Reporting of capital instrument issued to a person resident outside India and where such issue is reckoned as Foreign Direct Investment. Reporting of conversion of ECB into Equity. 	Investee Entity	Within 30 days from the date of issue of capital instruments
Annual Return of Foreign Liabilities and Assets (FLA)	Annual reporting by Indian company which has received FDI or LLP which has received capital contribution in the previous year(s) including the current year.	Investee Entity	On or before the 15th of July
Foreign Currency-Transfer of Shares (FC-TRS)	Transfer between resident to NR Sale of shares on Stock Exchange *	Resident transferor/ transferee or the person resident outside * Responsibility of the NR	Within 60 days of transfer of capital instruments of receipt/remittance of funds whichever is earlier. In case of transfer as per Regulation i.e. deferred payment transfer, reporting be done on receipt of every tranche of payment.
Employees' Stock Option (ESOP)	Stock option to persons resident outside India	Issuing Indian Company	Within 30 days from the date of issue

Import Financing Buyer's Credit (open account)			
Various Reporting Forms			
FORM	PURPOSE	RESPONSIBILITY FOR FILING	TIMEFRAME
LLP (I)	LLP receiving amount of consideration for capital contribution and acquisition of profit shares	Investee Indian LLP	Within 30 days from the date of receipt the amount of consideration
LLP (II)	Disinvestment/transfer of capital contribution profit share between a resident and non resident (or vice versa)	Investee Indian LLP	Within 60 days from the date of receipt funds
Depository Receipt Return (DRR)	Reporting of issue/transfer of depository receipt issued in accordance with the Depository Receipt Scheme, 2014 by the Domestic Custodian	Domestic Custodian	Within 30 days of close of the issue/program
Downstream Investment (Form DI)	An Indian company making downstream investment in another Indian company which is considered indirect foreign investment for the investee company	Indian Entity or Investment Vehicle making DI	Within 30 days of such investment
Form InVi	An investment vehicle which has issued its unit person resident outside India	Indian Investment Vehicle	Within 30 days of issuance of units in Investment Vehicle
Form Convertible Notes (CN)	Issuance & Transfer of CNs by Indian startup company	Issuing company/ Transferor/ Transferee	Within 30 days of issuance/ transfer



Table on late submission fee (current scale)

Late submission fee (LSF) ...		
Amount involved in reporting	LSF as % of amount	Max. LSF
Up to INR 1Cr	0.05%	INR 10 lakhs or 300% of amount involved (whichever is lower)
More than INR 1Cr	0.15%	INR 1Cr or 300% of amount involved (whichever is lower)

- % of LSF doubled for every 12 months of delay
- Includes Sundays/Holidays
- The period shall begin from ... day after due date till preceding day of reporting

Snap Shot of Non-Debt Instruments (NDI) Rules

- Rules 1 & 2 – Short title, definitions, etc.
- Rule 3 – Restrictions on investments in India by PROI
- Rule 4 – Restrictions on receiving investments
- Rule 5 – Permission for making investment by a PROI
- Rule 6 – investment by person resident outside India – Sch. I, VI, VIII, IX
- Rule 8 – Issue of ESOPs & SWEAT Equity shares
- Rule 9 – Transfer of equity instruments of an Indian company by or to a person resident outside India.
- Rule 10 – Investments by SEBI registered FPIs Sch. II & X
- Rule 12 – Investments by NRI or OCI – Sch. III, IV, X
- Rule 16 – Investments by FVCI -Sch. VII
- Rule 20 – Reporting requirements
- Rule 21 – Pricing guidelines
- Rule 23 – Downstream investments
- Rules 24 to 33 – Acquisition & transfer of immovable property in India by NRIs/OCIs/purpose of acquiring property, etc., including miscellaneous provisions

List of Documents for Obtention of Foreign Investments (Illustrative List)

- Application (for Inward) along with FEMA declaration signed by Investee Company.
- Brief profile of Investee Company providing main business activities of the entity with 5-digit NIC code as per NIC 2008 list.
- Copy of MOA of Indian Investee Company.
- Copy of MOU/share purchase agreement or declaration that there is no such agreement.
- 6 Point KYC SWIFT of the remitter/investor as per RBI format.
- NOC from joint account holder if shares are being issued on single name (applicable for remittances received from joint accounts only).
- Declaration stating Capital instruments against this remittance would be issued within 60 days in accordance with the provisions.
- Scan email acknowledgement received by the investee company from FIRMS helpdesk w.r.t to Entity master.



- Undertaking from customer confirming FCGPR & related documents will be reported in FIRMS portal within 30 days from date of allotment of shares.

List of Documents for Refund of Foreign Investments (Illustrative List)

- Application (FCTRS Outward) + Form A2 signed by Investee Company.
- FIRC in original obtained and endorsed and retained along with the records.
- Copy of UIN letter/ FIRMS FCGPR reporting Ref Number.
- Letter from the Company mentioning reason for return of funds.
- Board resolution from the company confirming excess funds have been received as share application money and the excess funds are being repatriated back to the investor.
- Letter confirmation that no interest element involved in refund of excess share application funds.
- Branch has to intimate to RBI about refund, once refund transaction is processed.

CAIIB BFM Module A Unit 7- Risk In Foreign Trade- Role Of ECGC

Definition of Risk And Risks In International Trade

A risk can be defined as an uncertain event with financial consequences resulting in loss or reduced earnings. An activity which may give profits or result in loss may be called a risky proposition, due to the uncertainty or unpredictability of the activity or trade in future. While, in human life, risk is related to illness, impairment or loss of life, in commercial and business activities, the business profit or loss would depend upon how the business is run or its affairs managed.

- **Buyer Risk:** The seller faces risks relating to non-acceptability, non-payment, quality acceptance, credit risk, etc.
- **Seller Risk:** The buyer faces the risk relating to the seller not shipping the goods after receiving advance payment, may ship poor quality goods and may ship the goods after considerable delay, which may either lead to cancellation or delays in further orders taken by the buyer or even penalties in delays/non-shipment.
- **Shipping Risk:** Includes risks arising due to other intermediaries in the international trade, like shipping companies, handling agents, port authorities, local transporters, or even loaders, etc.
- **Other Risks:** Some of the other risks like bank failure risk, settlement risk, risk of competition, genuineness of documents, price risk, legal risk, spread risk, market risk (absorption/rejection), etc. could affect the parties to the international trade.

We can also categorise the risks in International trade as under:



- **Credit Risk:** Relates to credit worthiness of the buyer, and could result in non payment of export bills due to any reasons, like financial crunch, defaults, insolvency, etc.
- **Legal Risk:** Relates to any amendment in the laws of the sellers or buyer's country, which could result in inability of the seller to export or of the buyer to remit proceeds of invoices. This could be due to embargoes on countries, ban or restriction on export of particular goods, ban or restriction on remittance of funds to particular countries, etc.
- **Country Risk and Political Risk:** Relates to the developments in the country of buyer or seller, leading to default in export or payments. This could be due to uncertainty in laws, uncertainty in financial position of the countries, inharmonious relationship between countries, or fluid political situation. Countries' bad forex reserves position could lead to shortage of foreign exchange and inability to buy foreign exchange, resulting in externalization issues.
- **Operational Risk:** Relates to operational issues at both ends or even at supporting organizations place. Strikes at seller's factory or even at sellers' raw material suppliers' factory, transporters, loaders, banks, clearing agents, etc.
- **Exchange Risk:** Relates to adverse movement in currencies. Any exporter or importer faces exchange risk, directly or indirectly. Invoicing in currency, other than home currency, strengthening or weakening of currency in which imports are billed, weakening of currency from where competitors import goods or supply goods to the same buyers/countries, etc.

Export Credit Insurance In International Trade

- **Exports grow on the backing of export financing by banks. Governments, in order to support exports, provide cheap financing options and provide comfort to exporters and financing banks, by way of export credit insurance.** Export credit insurance, provides protection against losses from political and commercial risk to the exporters and financing institutions.
- Countries have set up special corporations to provide these services of export credit insurance. Some general insurance companies also provide credit guarantee for exports. Credit insurance lowers the cost of borrowing/financing, as the government agency bears the risk of default as per policy terms. Usually, the insurance is on risk sharing basis—as such it covers a large part of credit default, but requires the insured exporter/financer to bear some part of the loss.

ECGC LTD. – Role And Products

About ECGC Ltd (earlier known as Export Credit Guarantee Corporation Ltd.)

ECGC Ltd is a credit guarantee institution, set up for the promotion of exports, by protecting the exporters from any financial loss due to the buyer's failure to pay or due to the problem of externalization in the country of import, by issuing various types of policies to the exporters. At the same time, ECGC issues various types of guarantees to



banks, financing exporters, which protect banks in case of loss from their advances to exporters

At present, ECGC has set before itself the following objectives:

- To encourage and facilitate globalization of India's trade.
- To assist Indian exporters in managing their credit risks by providing timely information on worthiness of the buyers, bankers and the countries.
- To protect the Indian exporters against unforeseen losses, which may arise due to failure of the buyer, bank or problems faced by the country of the buyer by providing cost effective credit insurance covers in the form of Policy, Factoring and Investment Insurance Services comparable to similar covers available to exporters in other countries.
- To facilitate availability of adequate bank finance to the Indian exporters by providing surety insurance covers for bankers at competitive rates.
- To achieve improved performance in terms of profitability, financial and operational efficiency indicators and achieve optimum return on investment.
- To develop world class expertise in credit insurance among employees and ensure continuous innovation and achieve the highest customer satisfaction by delivering top quality service.
- To educate the customers by continuous publicity and effective marketing.

Main Activities of ECGC

ECGC provides a wide range of credit risk insurance cover to exporters against loss in export of goods and services. It also offers guarantees to banks and financial institutions to enable exports to obtain facilities, credit or otherwise, from banks They provide credit reports of overseas buyers also.

Some of the main policies offered by ECGC to the exporters are:

- Standard Policies to exporters to protect them against payment risks involved in exports on short-term credit.
- Small Exporters Policy basically a Standard Policy, but incorporating certain improvements in terms of cover to enable to encourage small exporters.
- Specific Shipment Policies designed to protect firms in India, against payment risks involved in

(a) Exports on Deferred Payment Terms

(b) Insurance for Buyers' Credit and Lines of Credit

(c) Services rendered to Foreign Parties



(d) Construction Works and Turnkey Projects Undertaken Abroad.

- Exports (Specific Buyer) Policy.
- Export Turnover Policy.
- Buyer Exposure Policy.
- Consignment Exports Policy.
- Multi-buyer Exposure Policy.
- IT-Enabled Services Policy-Single Customer (SITES).
- Policy for SME Sector.

(B) The guarantees policies offered by ECGC to the banks are:

- Export Credit Insurance for Banks (Whole turnover – Packing Credit)-ECIB (WT-PC).
- Export Production Finance Guarantee.
- Export Credit Insurance for Banks (Whole turnover- Post shipment Credit)- ECIB (WT-PS).
- Export Finance Guarantee.
- Export Performance Indemnity.
- Export Finance (Overseas Lending) Guarantee.
- Transfer Guarantees.

Besides the above, ECGC also offers some Special Schemes, such as Factoring, Buyer's Credit Cover, Lines of Credit Cover, Overseas Investment Insurance, Transfer guarantees, (covering risk on transfer of funds), Scheme for Small Exporters, Exchange Fluctuation Risk Insurance Scheme, Customer Specific Covers etc.

ECGC Policies

Standard Policies

The Standard Policies of ECGC provide cover for exporters for short-term exports.

The different types of policies are:

- **Shipment (Comprehensive Risk) Policy** – to cover both commercial and political risks from of shipment.
- **Shipment (Political Risks)** – to cover only political risks from the date of shipment.
- **Contracts (Comprehensive Risks) Policy** – to cover both commercial and political risks from the date of contract.
- **Contracts (Political Risks) Policy** – to cover only political risks from the date of contract.

Standard policies cover following risks:



- **Commercial Risks** – covering Insolvency of the Overseas Buyer, Protracted Default by the overseas buyer to pay for goods accepted by him within a specified period usually 4 months from the due date, – Buyers’ failure to accept goods subject to certain conditions.
- **Political Risks** – which covers imposition of restrictions on remittance by the Government in buyers’ country or any Government action which may block or delay payment to exporter, war, revolution or civil disturbances in buyers’ country, New Import Licensing restrictions or cancellations of a valid import license in the buyers’ country, interruption or diversion of voyage outside India resulting in payment of additional freight or insurance charges which cannot be recovered from the buyer, any other cause of loss occurring outside India, not normally insured by general insurers and beyond the control of both the exporter and the buyer.

Standard policies do not cover following risks:

- Commercial disputes raised by the buyer.
- Causes inherent in the nature of goods.
- Buyer’s failure to obtain necessary import or exchange authorization from authorities in his country.
- Default or insolvency of any agent of the exporter or collecting bank. Loss or damage to goods which can be covered by general insurers.
- Exchange rate fluctuation risk.
- Failure of the exporter to fulfill the terms of the export contract or negligence on his part. The cover granted by ECGC on Standard policies is 90% of the value of exports. The premium for such policies varies for different countries and payment terms.

Small Exporters’ Policy

- **The Standard Policy (Shipments comprehensive Risks Policy) issued by the Corporation to exporters is a declaration type of policy and is issued to cover shipments that may be made in period of 24 months ahead.** For the purpose of issuing the Policy, a Small Exporter is defined as an exporter whose anticipated total **export turnover for the period of 12 months ahead is not more than Rs. 50 lacs. (Projected Export Turnover)**
- This policy provides cover against Commercial risks, covering insolvency of the buyer, failure of the buyer to make the payment due within 2 months from the due date, buyer’s failure to accept the goods, due to no fault of the exporter, provided that legal action against the buyer is considered to be inadvisable.

It also provides cover against Political risks, covering:

- ✓ Imposition of restrictions by the Government of the buyers’ country or any Government action which may block or delay the transfer of payment made by the buyer.
- ✓ War, civil war, revolution or civil disturbances in the buyers’ country.



- ✓ New import restrictions or cancellation of a valid import license.
- ✓ Interruption or diversion of voyage outside India resulting in payment of additional freight or insurance charges which cannot be recovered from the buyer.

Small exporters policy does not cover losses arising due to the following risks:

- Commercial disputes including quality disputes raised by the buyer, unless the exporter obtains a decree from a competent court of law in the buyers' country in his favour.
- Causes inherent in the nature of the goods.
- Buyer's failure to obtain necessary import or exchange authorization from authorities in his country
- Insolvency or default of any agent of the exporter or the collecting bank.
- Loss or damage to goods, which can be covered by general insurers.
- Exchange rate fluctuation.
- Failure of the exporters to fulfill the terms of the export contract or negligence on his part.
- Non payment under LC due to any discrepancy pointed out by the LC opening bank.

This policy is issued for a period of 12 months,

Specific Shipment Policies – Short-Term

The Specific Shipment Short-Term Policies provides cover against commercial and political risks involved in export of goods on short-term credit not exceeding 180 days. Cover under these policies can be taken for shipment(s) made/to be made by the exporter to a buyer under a contract. These policies can be availed of by exporters who do not hold Comprehensive policy covering shipments in the specific contracts.

Short-term policies could be:

- Specific shipments policy covering commercial and political risks
- Specific shipments (political risk) policy, to cover only political risk at the Post-shipment stage in cases where the buyer is an overseas government or payments are guaranteed by a Government or by banks or are made to associates, and
- Specific Shipments (insolvency and default of L/C opening bank and political risks) Policy.

Commercial risks covered by the Short-Term policies, include:

- Insolvency of the buyer,
- Failure of the buyer to make the payment due within a specified period normally 4 months from the due date,
- Buyers' failure to accept the goods (subject to certain conditions).



Political risks covered under this policy are:

- Imposition of restrictions by the Government of the buyer's country or any Government action, which may block or delay the transfer of payment made by the buyer,
- War, civil war, revolution or civil disturbances in the buyer's country,
- New import restrictions or cancellation of a valid import licence, interruption of voyage outside India, resulting in payment of additional freight or insurance charges which cannot be recovered from the buyer,
- Any other cause of loss occurring outside India, not normally insured by general insurers and beyond the control of both the exporter and the buyer.

Short-Term policies do not cover following losses:

- Commercial disputes including quality disputes raised by the buyer unless the exporter obtains a decree from a competent court of law in the buyer's country in his favour,
- Causes inherent in the nature of goods,
- Buyer's failure to obtain necessary import or exchange authorization from authorities in his country,
- Insolvency or default of any agent of the exporter or of the collecting bank,
- Loss or damage to goods,
- Exchange rate fluctuation,
- Failure of the exporter to fulfill the terms of the export contract or negligence on his part.

Exports (Specific buyers) Policy

Exports-Buyerwise Policies – Short Term (BP-ST) provides cover to Indian exporters against commercial and political risks involved in export of goods on short-term credit to a particular buyer. All shipments to the buyer in respect of whom the policy is issued will have to be covered. However, there is a provision to permit exclusion of shipments under LC. These policies can be availed of by exporters who do not hold Standard Policy and also by exporters already having Standard Policy. These policies are of three types:

- Buyerwise (commercial and political risks) Policy – short-term.
- Buyerwise (political risks) Policy – short-term.
- Buyerwise (insolvency & default of L/C opening bank and political risks) Policy short-term,

Buyer Exposure Policy

- A variant to this policy is Buyer Exposure policy, which is specifically designed for large exporters to enable them to cover their exposure on a particular buyer on the basis of expected exposure. **Two types of exposure policies** – one for covering the risks on a specified buyer and another for covering the risks on all buyers – are offered.



Export Turnover Policy

- **Export Turnover policy is a variation of the standard policy for the benefit of large exporters who contribute not less than Rs. 10 lacs per annum towards premium.** Therefore, all the exporters whose turnover is likely to **exceed the premium payable to ECGC by Rs. 10 lacs in a year are entitled to avail of it.**

ECGC'S Products For Banks

- While it is essential that exporters continue to get timely and adequate export credit both at pre-shipment and post-shipment stage, so that the best possible potential for exports can be realized, banks will be willing to release such facilities freely only if the advances are utilized properly and realized in time.
- ECGC, with the intention of giving protection to the bankers against losses on account of their financial lending to their exporter clientele, has been providing credit insurance to financial institutions/banks.
- This in turn leads to an additional security for the bankers and thus translates into adequate financial support to exporters. ECGC issues following types of insurances looking to the various needs of exporters/financial institutions



Packing Credit Insurance

- Any loan given to an exporter for the manufacture, processing, purchasing or packing of goods meant for export against a firm order or letter of credit qualifies for packing credit guarantee.
- It is issued for a **period of 1 year against a proposal made** for the purpose and covers all advances that may be made by the bank during the period to a given exporter within an approved limit.
- The claim is payable, in case the pre-shipment credit granted is not paid within 4 months from the due date of the loan.
- Export Credit Insurance for Banks (Whole turnover – Packing Credit)-ECIB (WT-PC), is issued by ECGC to banks wherein a higher percentage of cover is available



at a lower premium since a large volume of business is offered to cover in this guarantee.

- Bank is required to notify the limits sanctioned to their exporter customer within 30 days of the sanction and banks are required to take the approval of the Corporation if they exceed an agreed value, called the Discretionary limit.
- The premium on WTPC insurance is borne by the exporters.

Export Production Finance Guarantee

- This guarantee covers the advances given by banks against incentives/receivable at the Pre-shipment stage.
- While the extent of cover and the premium are the same as for packing credit insurance, banks having ECIB (WT-PC) are eligible for concessional premium rate and higher coverage.

Post-Shipment Export Credit Insurance

- A bank or a financial institution dealing with foreign exchange is eligible to obtain this Whole-turnover Cover for all its accounts (ECIB – WT-PS). The period of cover is 12 months and all post-shipment advances granted to exporters by way of purchase/discount/negotiation of export documents or advances granted against export bills sent on collection basis, as per RBI guidelines are eligible to be covered by this insurance.
- The insurance protects banks against losses that may be incurred in extending post-shipment advances due to protracted default or insolvency of the exporter-client.
- The extent of cover varies from 90% to 95% in respect of exporters who are Policyholders of ECGC and 50% to 75% for non-Policyholders, depending upon the claim premium ratio of the bank.
- For bills drawn on Associates of Policyholders coverage is 60% and of non-Policyholders it is 50%.
- The premium on WTPS insurance is borne by the Banks.

Export Finance Guarantee

- When banks grant post-shipment advances to their exporters against export incentives receivables in the form of cash assistance, duty drawback, etc., it can be covered under this guarantee.

Export Performance Indemnity

- It is issued by ECGC in the nature of a counter guarantee to the bank against possible losses that they may suffer on account of the guarantees issued by them on behalf of its exporter clients.



- Guarantees are required to be issued on account of exporters clients, in favour of overseas buyers, for performance of contracts, Bid-bonds, quality, etc.
- Guarantees are also required in favour of customs, for import of capital as well as raw material free of customs duty, or on reduced duty, against export commitments.

Export Finance (Overseas Lending) Guarantee

- If a bank financing an overseas project provides a foreign currency loan to the contractor, it can protect itself from the risk of non-payment by the contractor by obtaining Export Finance (Overseas Lending) guarantee.
- The premium on such guarantee are payable in Indian Rupees.

Other Special Guarantees and Schemes

Exchange Fluctuation Risk Cover Scheme

- The cover under the scheme is available for payment **scheduled over a period beyond 12 months up to a maximum period of 15 years.**
- Cover under the scheme is available for payments specified in US dollar, Pound Sterling, EURO, Japanese Yen, Swiss Francs, UAE Dirham and Australian Dollars.
- However, cover can be extended for payments specified in other convertible currencies at the discretion of the ECGC.
- The contract cover provides a deductible of 2%. Loss or gain within a range of 2% of the reference rate will go to the exporters' account.
- If loss exceeds 2%, then ECGC will make good the portion of loss in excess of 2%, but not exceeding 35% of the reference rate.
- In other words, gains/losses up to 2% and beyond 35% of reference rate will be to the exporters' account.
- Gains or losses over 2% and up to 35% will be to ECGC's account.

Maturity Factoring

- ECGC's full-fledged factoring service takes care of the export credit guarantee for the exporters, besides their financing needs. Factoring service covers financing and collection of series of receivable transactions between the buyer and the seller. It also includes credit protection, thereby improving exporter's cash flows.

ECGC factoring service provides:

- ✓ Facilitates purchase of account receivables.
- ✓ Provides up to 90% finance against approved transactions.
- ✓ Full credit guarantee on buyer's default or insolvency.
- ✓ Maintenance of sales ledger.



- ✓ Follow-up for collection of export proceeds.

Eligibility:

- ✓ Exports with good track record.
- ✓ Dealing on DA terms/open account terms with buyers.
- ✓ Having unexpected bulk orders to execute.
- ✓ Exporters facing large working capital shortfall by way of bill financing.

The facility allows exporters to avail additional finance, eliminates the need for routing export bills through commercial banks and also the need for following up with the buyers for payments. Export factoring also reduces the administrative costs to the exporters.

Insurance Cover for Buyer's Credit and Line of Credit

- ✓ Buyer's Credit is a credit extended by a bank in India to an overseas buyer enabling the buyer to pay for machinery and equipment that he may be importing from India for a specific project.
- ✓ A Line of Credit is a credit extended by a bank in India to an overseas bank, institution or government for the purpose of facilitating import of a variety of listed goods from India into the overseas country.
- ✓ ECGC has evolved schemes to protect the lending banks from certain risks of non-payment.
- ✓ These covers take the form of an agreement between the lending bank and ECGC and are issued on a case to case basis.
- ✓ Credit terms and the length of the credit period should be in conformity with what is appropriate for the export of the relevant items.
- ✓ Risks Covered: Political and Loss Coverage is 90%. Period of Cover can be as per the agreement.

Overseas Investment Insurance Cover

- ECGC has evolved a scheme to provide protection for Indian Investments abroad.
- Any investment made by way of equity capital or untied loan for the purpose of setting up or expansion of overseas projects will be eligible for cover under investment insurance.
- The investment may be either in cash or in the form of export of Indian capital goods and services.
- The risks of war, expropriation and restriction on remittances are covered under the scheme.
- As the investor would be having a hand in the management of the joint venture, no cover for commercial risks would be provided under the scheme.

Main features of the Overseas Investment Insurance



- ✓ For investment in any country to qualify for investment insurance, there should preferably be a bilateral agreement protecting investment of one country in the other.
- ✓ ECGC may consider providing cover in the absence of any such agreement provided it is satisfied that the general laws of the country afford adequate protection to the Indian investments.
- ✓ The period of insurance cover will not normally exceed 15 years in case of projects involving long construction period. The cover can be extended for a period of 15 years from the date of completion of the project subject to a maximum of 20 years from the date of commencement of investment.
- ✓ Amount insured shall be reduced progressively in the last five years of the insurance period.

Only political Risks are covered as under:

- ✓ War, Civil War, Revolutions in buyer's country
- ✓ Expropriation
- ✓ Restrictions on remittances
- ✓ Loss Coverage is up to 90%.
- ✓ Cover is available up to 15 years, expandable up to 20 years with reduced insured amount and reduced
- ✓ loss coverage with proportionate reduction in premium.

Customer Specific Policy Cover

- In order to cater to the specific need for export credit insurance cover, of reputed large value exporters which otherwise could not be fully addressed under any one of standard products, the **customer specific policies have been introduced and are issued to large exporters on a selective basis on the merits respective requests for such cover.**
- Normally such policies are issued without changing the basic risk cover profile of the export transaction.

Some of the features of customer specific policies are as under:

- ✓ Policies can be issued combining feature of more than one standard type (Off the shelf) policies;
- ✓ Policies are issued with the base cover of an appropriate standard policy with added feature from other standard policies if required;
- ✓ Customer specific policies are considered only in respect of cases where anticipated **annual premium is more than Rs. 10 lakhs.** The customer's policies are issued in line with **the credit insurance covers approved by IRDA.**

CLAIMS



- Exporters to submit the claim forms within 12 months from the due date of the unpaid bills and ensuring that the premium on the policies are up to date.
- Claims will not be settled by ECGC for more than four buyers during the policy period.
- Claims will be paid directly to the Bank who had handled the export documents.
- Bank can appropriate the claim amount directly to post shipment advance account, if any.
- Settlement of claim amount by ECGC does not relieve the Exporter of the responsibility of realizing the proceeds and all further recoveries to be shared with ECGC on a pro-rata basis as and when received.

CAIIB AFM Module A Unit 8: Exim Bank - Role, Functions and Facilities

Exim Bank – Role, Functions And Facilities

The EXIM Bank of India was established in 1981, under the **Export Import Bank of India Act 1981**, an Act of Parliament, as a principal financial institution for providing financial assistance and services and country, especially on a long-term basis. It arranges lines of credit to other Governments, for promoting exports for coordinating the functions of institutions engaged in financing of export import trade in the of goods made in India.

The functions and operations of Exim Bank evolve around following philosophy:

- To make India's exports internationally competitive, by offering finance at competitive rates and conditions.
- To develop alternate financing solutions.
- To provide data, information and advice for new export opportunities to Indian exporters.
- To provide selective production, marketing and financing for Indian products to make them internationally competitive.
- To respond to export problems of Indian Exporters and pursue policy resolutions.

EXIM Bank Products

Buyer's Credit:

- **Buyer's Credit is a credit facility programme that motivates Indian exporters to explore new geographies** Through this programme, the overseas



buyer can open a letter of credit” in favour of the Indian exporter and can import goods and services from India on deferred payment terms.

Corporate Banking:

EXIM Bank offers various financing products to Corporates as under:

- Research & Development Finance for Export Oriented Units
- Pre-Shipment/Post-Shipment Credit Programme
- Lending Programme for Export Oriented Units
- Import Finance Programme
- Production Equipment Finance Programme
- Financial assistance to Special Purpose Vehicles (SPVs) of a cluster of SMEs
- Lending Programme for Financing Creative Economy
- Finance for Grass Root Enterprises

Lines of Credit:

- **EXIM Bank have been extending Lines of Credit (LOC) to enable Indian exporters to enter new geographies or expand their business in existing export markets without any payment risk from overseas importers.** They lay special emphasis on extending LOC as an effective market entry tool as well as a means of market diversification for Indian exporters.

Overseas Investment Finance:

- EXIM Bank helps in enhancing export opportunities for India and driving the economic growth of the nation. They encourage and facilitate conditions for Indian companies to invest abroad for seeking resources, markets, efficiencies and strategic assets.

Project Exports:

- EXIM Bank has been one of the prime drivers in encouraging project exports from India; and has enabled Indian companies to secure contracts across various geographies over the past three decades and supplement the development objectives of host countries.

They extend funded and non-funded facilities to the following export of projects and services:

- Civil Engineering and Construction Projects



- Turnkey Projects
- Technical and Consultancy Service Contracts
- Supplies

Other Services and Programmes

- **Consultancy and technology services** wherein Indian consultants are assisted by way of long term financial assistance, manpower and expert recruitment, preparation of project reports, plans, transfer of technology, etc.
- **Overseas investment finance** wherein corporates interested in joint ventures abroad, are provided equity finance by Exim Bank. The equity participation can be by way of export of plant and machinery, for which long-term export finance is considered by Exim Bank.
- **Import loans** for financing imports from third countries for projects to be executed in foreign countries.
- **International merchant banking services** include foreign currency financing and advisory services for raising low cost finance for projects abroad to be executed by Indian companies.
- **Export Marketing Fund (EMF):** Exim Bank is the nodal agency, designated by the Government of India (GOI), to manage the Export Marketing Fund (EMF) to accelerate the export growth of target products with industrialized markets. EMF-1 was a component of World Bank loan to India of USD 250 million for Industrial Export (Engineering products) project, while EMF-2, amounting to USD 37 million is a component of a World Bank loan to India for export development. EXIM Bank has also launched Export Marketing Finance EMF-3 from its own resources.

The activities which are eligible for EMF support include:

- ✓ Desk research
- ✓ Overseas field market research
- ✓ Minor product adaptation
- ✓ Overseas travel
- ✓ Product inspection services
- ✓ Training

***Establishing overseas operations:***

- ✓ Travel to India by overseas buyers
- ✓ Front-end promotional expenditure
- ✓ Research and development
- ✓ Equipment for plant modernization/capacity enhancement
- ✓ Tooling, jigs and fixtures
- ✓ Testing quality control equipment

Product Liability Insurance (PLI): In developed countries product liability consciousness of the public is very high, resulting in a large number of litigation and high awards.

Export Vendor Development Lending Programme (EVDLP): Manufacturer, exporters and trading export houses source goods from vendors for export on a regular basis.

EXIM Bank line of credit programme for other countries:

- Under this route, EXIM Bank grants line of credit to governments of other countries, for supporting their development plans, which allows the Indian exporter to get instant credit from EXIM Bank, upon exporting the goods/services and submission of export documents through their regular bankers.
- The beneficiary government gets a long tenor of say 3-5 years to pay for the products and services, thus allowing them deferred payment credit.

Reserve Bank of India - Role and Exchange Control Regulations In India

Reserve Bank of India, being the central bank of the country, is empowered under the statute to control and regulate the foreign exchange reserves and policies related to international trade, inflow/outflow of foreign exchange, as also has supervisory powers over the persons authorized to deal in foreign exchange.

FEMA Regulations

As per Section 11(1) of FEMA 1999, Reserve Bank of India, is empowered to issue any direction with regard to making payment or doing or desist from doing any



act relating to foreign exchange or foreign security, for the purpose of securing compliance with the provisions of the FEMA, and any rules, regulations, notifications or directions made thereunder.

Under Section 11(3) of FEMA 1999 RBI may, after giving reasonable opportunities of being heard, impose on the **authorized person a penalty which may extend to Rs. 10,000.00 (Rupees Ten thousand) for contravention of any direction given under FEMA or failure** to file any return under this Act. In case of continuing contraventions, an additional penalty, which may extend up to Rs. 2,000.00 per day, for which such contravention continues, may be imposed.

The data is to be submitted to RBI in the form of returns/statements, some of which are:

- **R Return** - Bank-wide single return of fortnightly data on forex operations
- **BAL Statement** - statement showing balances in NOSTRO, VOSTRO accounts
- **STAT 5** - data on transactions related to FCNRB deposits
- **STAT 8** - data on transactions in NRE and NRO deposit accounts
- **NRDCSR** - consolidated data on non-resident deposits
- **International Banking Statistics** - quarterly data on all international assets and liabilities
- **Statement of Remittances sent under Liberalized Scheme for Residents** - Monthly. Under the RBI's Liberalized Remittance Scheme, Authorized Dealers can allow remittances by resident individuals up to USD 2,50,000 per Financial Year (April-March) for any permitted current or capital account transaction or a combination of both. The Scheme is not available to corporates, partnership firms, HUF, Trusts, etc.
- **Statement of Trade Credit** - Buyer's Credit and Supplier's Credit – Monthly
- **XOS** – half-yearly exports outstanding statements, showing all overdue exports bills remaining unrealized. With effect from March 01, 2014, details of all export outstanding bills can be obtained from the EDPMS. AD category - I banks were, however, required to report the old outstanding bills prior to March 01, 2014 in XOS on half yearly basis as at the end of June and December every year.



- **BEF** - statement showing details of imports where remittances have been effected but proof of imports (bill of entry) not submitted by the remitter. However, after introduction of IDPMS, submission of BEF statement has been discontinued and the data of pending Bills of Entries are available to RBI, through the IDPMS system.
- **FEMIS** - daily data on forex dealing room operations.
- **ECB-2** - Reporting of actual transactions of External Commercial Borrowings (ECB) under Foreign Exchange Management Act, 1999 (for all categories and any amount of loan)

Foreign Exchange Management Act, (FEMA) 1999

FEMA, 1999 was enacted by the statute of the parliament, and was brought into force w.e.f. 1.6.2000. The Act is applicable to all transactions in foreign exchange, undertaken in India or by persons resident in India.

Earlier **Foreign Exchange Regulation Act 1973 (FERA, 1973)** regulated the area of **foreign exchange**, which had its origin from Defence of India Rules 1935, and later on FERA 1947. The foreign exchange regulations have come a long way since 1935, 1947 and 1973, and with the introduction of a liberalized regime under FEMA 1999, there has been a considerable relaxation in regulatory provisions related to foreign exchange transactions.

The objective of FEMA is to facilitate external trade and payments and to promote the orderly development and maintenance of foreign exchange markets in India, while the objective of FERA was to conserve the foreign exchange resources of the country and to ensure proper utilisation thereof in the interests of the economic development of the country.

Remittances which Require prior Approval of the Government (Schedule II)

Purpose of Remittance	Ministry/Department of Govt. of India whose approval is required
1. Cultural Tours	Ministry of Human Resource Development, (Department of Education and Culture)
2. Advertisement in foreign print media for the purposes other than promotion of tourism, foreign investments and international bidding (exceeding USD 10,000) by a State Government and its Public Sector Undertakings	Ministry of Finance (Department of Economic Affairs)
3. Remittance of freight vessel chartered by a PSU	Ministry of Surface Transport (Chartering Wing)
4. Payment of import through ocean transport by a Govt. Department or a PSU on c.i.f. basis (i.e. other than f.o.b. and f.a.s. basis)	Ministry of Surface Transport (Chartering Wing)
5. Multi-modal transport operators making remittance to their agents abroad	Registration Certificate from the Director General of Shipping
6. Remittance of hiring charges of transponders by (a) TV Channels (b) Internet Service Providers	Ministry of Information and Broadcasting Ministry of Communication and Information Technology
7. Remittance of container detention charges exceeding the rate prescribed by Director General of Shipping	Ministry of Surface Transport (Director General of Shipping)
8. Omitted	
9. Remittance of prize money/sponsorships of sports activity abroad by a person other than International/National/State levels sports bodies, if the amount involved exceeds USD 100,000	Ministry of Human Resource Development, (Department of Youth Affairs and Sports)
10. Omitted	
11. Remittance for membership of P&I Club	Ministry of Finance (Insurance Division)

Foreign Travel

The main provisions with regard to foreign travel are:

- Drawal of exchange for travel to Nepal and Bhutan is prohibited.
- Payment in rupees for purchase of foreign exchange may be done in cash, if the rupee equivalent is not more than Rs. 50,000.
- In case the rupee equivalent exceeds Rs. 50,000, the payment should be made by crossed cheques, a banker's cheques or a pay order or a demand draft or through NEFT/RTGS.
- Out of the total foreign exchange drawn, foreign currency notes and coins can be given by the authorized dealer, up to: (a) the entire amount in case of travel to



Islamic Republic of Iran, Russian Federation or other states of erstwhile Russia, (b) Up to USD 5,000 for travel to Libya or Iraq, and (c) not exceeding USD 3,000 in all other cases.

- A person resident in India can possess or retain foreign currency notes up to USD 2,000 or its equivalent, subject to specific rules on acquiring of such foreign exchange. However, a resident can possess foreign currency coins without any limit.

(vi) While selling foreign exchange for travel abroad, the passport of the traveler need not be endorsed, unless specifically requested for by him.

The traveler should surrender unspent foreign exchange within 180 days from the date of return.

The unspent foreign exchange can be deposited by the resident in the Resident Foreign Currency Account (RFC), with any Authorized Dealer.

Other Remittances

FEMA also allows residents to make remittances for following purposes also:

- **Gift remittance** per remitter/per donor up to USD 250,000 in one financial year, to relatives, friends, etc., abroad.
- **Donation** per remitter/per donor up to USD 250,000 in one financial year to charitable/religious cultural organisations.
- **Subscription to Magazines/Periodicals** can be allowed by the Authorized Dealers, except for the banned/proscribed magazines.
- **Consultancy Services** USD 10,000,000 per project for any consultancy services in respect of infrastructure projects and USD 1,00,000 per project for any other project.
- **International Debit/Credit Card ATM Card:** Residents can use their Credit/Debit or ATM cards while on visits abroad, which can be paid off through the designated AD branch, up to the entitlement of foreign exchange for visits abroad.

Prohibitions:

- Remittance out of lottery winnings.
- Remittance of income from racing/riding etc., or any other hobby.
- Remittance for purchase of lottery tickets, banned proscribed magazines, football pools, sweepstakes, etc.



- Payment of commission on exports made towards equity investment in Joint Ventures/Wholly owned Subsidiaries abroad of Indian companies.
- Remittance of dividend by any company to which the requirement of dividend balancing is applicable.
- Payment of commission on exports under Rupee State Credit Route, except commission up to 10% of invoice value of exports of tea and tobacco.
- Payment related to Call Back Services of telephones.
- Remittance of interest income on funds held in Non-Resident Special Rupee (Account) Scheme.

Indian Investments Abroad

From FERA 1973 - which had its main aim to conserve foreign exchange, India moved to FEMA 1999, which had its motto to facilitate external trade and payment and to maintain orderly growth of exchange markets. Section 6(3) of FEMA also authorised RBI to regulate the transfer or issue of any foreign security by a person resident in India and the classes of permissible Capital a/c transactions & limit up to which exchange is admissible, (in consultation with Central Government)

(ii) For Indian investments abroad, FEMA Notification No 1920 - RB - 2000 dated 3rd May 2000 - Transfer or Issue of any Foreign Security - As amended by various notifications, as also directions issued by way of AP (Dir Series) Circulars, are applicable.

(iii) Extant guidelines/regulations prohibit following investments abroad:

- Investments in Real Estate and Banking
- Investments by Indian Entity Caution Listed - under investigation by the Enforcement Directorate - Defaulter to the Banking system etc.
- Investments by Trusts

(iv) Indians can invest abroad by way of:

- **Joint Venture:** A foreign entity formed, registered or incorporated in accordance with the laws and regulations of the host country in which the Indian party makes a direct investment.
- **Wholly Owned Subsidiary:** A foreign entity formed, registered or incorporated in accordance with the laws and regulations of the host country, whose entire capital is held by the India party.

(v) Eligible investors



Corporates including registered partnership firms

- Individuals
- Mutual funds

Foreign Currency Account in India

Resident Indians can maintain following foreign currency accounts in India:

Exchange Earners Foreign Currency (EEFC) Accounts

- Resident persons, companies or firms can open and maintain EEFC accounts, for the purpose to transacting foreign exchange business. Every recipient of foreign exchange is allowed to retain 100% of the amount in a foreign currency account, with any AD.

Resident Foreign Currency (RFC) Accounts

- Returning Indians, who were non-residents earlier and are now returning to India for permanent settlement, are permitted to open a foreign currency account with any AD, to keep their foreign currency assets held outside India, or any other monetary benefits from the employer outside India.

Resident Foreign Currency (Domestic) Account - RFCD

- **A person resident in India is allowed to open and maintain a Resident Foreign Currency account with an AD**, out of the foreign exchange acquired by him in the form of currency notes, or travellers cheques, while on a visit to any country outside India, (not from business), or as an honorarium or gift for service rendered in India to any person who is not a resident of India, and is on a visit to India, or represent unspent foreign exchange acquired for travel abroad.

Diamond Dollar Account (DDA)

- **The facility of opening Diamond Dollar Accounts has been granted to diamond exporters, as the products they export is imported in raw form, from abroad.** India imports, rough diamonds and exports polished diamonds to various countries in the world. As such, since the diamond exports usually need to remit a large part of their realisation of export proceeds for payment of import



bills, they can park their foreign currency funds in these Diamond Dollar accounts and remit funds to retire their import bills, without incurring any exchange risk.

Role of FEDAI and FEDAI Rules

About FEDAI

Foreign Exchange Dealers Association of India (FEDAI) a Self Regulatory Organization (SRO), was formed in August 1958 with the approval of Reserve Bank of India, to take over certain functions then undertaken by the Exchange Banks' Association (foreign banks) operating at Mumbai, Kolkata, Chennai, Delhi and Amritsar.

It was set up as an Association of banks dealing in foreign exchange in India (typically called Authorised Dealers - ADs) and incorporated **under Section 25 of The Companies Act, 1956**. Its major activities include framing of rules governing the conduct of inter-bank foreign exchange business among banks vis-à-vis public and liaison with RBI for reforms and development of forex market.

Presently some of the functions of FEDAI are as follows:

- Guidelines and Rules for Forex Business.
- Training of Bank Personnel in the areas of Foreign Exchange Business.
- Accreditation of Forex Brokers.
- Advising/Assisting member banks in settling issues/matters in their dealings.
- Represent member banks on Government/Reserve Bank of India/Other Bodies.
- Announcement of daily and periodical rates to member banks.

The FEDAI rules (9th edition) UPDATED UPTO 30112016, presently applicable to authorised dealers are as under:

General Guidelines/Instructions

- The directives issued by the Reserve Bank of India in respect of interest rates on Export & Import finance shall be adhered to by the Authorised Dealers.
- The member banks are totally free to determine their own charges for various types of forex transactions, keeping in view the advice of RBI that such charges are not to be out of line with the average cost of providing services.



- With a view to simplifying and liberalising import authorised dealers are permitted to open standby letters of credit on behalf of their importer constituents for importing goods into India, permissible under Foreign Trade Policy. RBI in terms of its AP (Dir Series) Circular No.84 dated 3rd March 2000 permitted authorised dealers to open standby letters of credit subject to adherence to the guidelines issued by FEDAI.
- Banks should prominently display their card rates for foreign currencies on their website and/or their B Category branches. Banks should also declare threshold amounts up to which they are committed to apply card rates.
- Information regarding various forex related programmes, exchange rates advised at various times, important circulars issued by FEDAI etc.
- FEDAI reference to Authorised Dealer is the reference to all Authorised Dealers (Category-1) banks and other Financial Institutions who are members of FEDAI, wherever applicable.

Interest for delayed delivery

In the event of late delivery of any currency (including Indian Rupee) in foreign exchange contract, interest for the number of days of delay (regardless of the causes for delay) shall be payable by the seller-bank. **The interest for the overdue period shall be payable at the rate of 2% over the benchmark rate of the currency concerned.**

The benchmark rates for the currencies are listed below:

- INR-NSE - MIBOR overnight rate
- STG-Base rate of Barclays Bank
- USD - Prime rate of Citibank NA
- EUR - Marginal Lending Facility rate of European Central Bank
- JPY- Prime rate of Bank of Tokyo-Mitsubishi UFJ Ltd.
- CHF - 3 month rate of Swiss National Bank
- CAD-Prime rate of Bank of Nova Scotia

In case of transactions in currencies not mentioned above, the seller bank shall pay interest at 2% over notional overdraft rate payable by the buyer bank. The rate of interest applied would be the average rate based on rates on each day of delay.

Short Notes on Other Topics



External Commercial Borrowings

External Commercial Borrowings (ECBs) are commercial loans raised by eligible resident entities from recognised non-resident entities and should conform to parameters such as minimum maturity, and non-permitted end-uses, maximum all-in-cost ceiling, etc. The parameters apply in totality and not on a standalone basis.

The framework for raising loans through ECB, comprises the following three tracks:

- **Track I:** Medium term foreign currency denominated ECB with minimum average maturity of 35 years
- **Track II:** Long term foreign currency denominated ECB with minimum average maturity of 10 years.
- **Track III:** Indian Rupee (INR) denominated ECB with minimum average maturity of 375 years.

Forms of ECB: The ECB Framework enables permitted resident entities to borrow from recognized non-resident entities in the following forms:

- Loans including bank loans
- Securitised instruments (e.g. floating rate notes and fixed rate bonds, non-convertible, optionally convertible or partially convertible preference shares/debentures)
- Buyers' credit
- Suppliers' credit
- Foreign Currency Convertible Bonds (FCCBs)
- Financial Lease
- Foreign Currency Exchangeable Bonds (FCEBs)

American Depository Receipts (ADRs)

Introduced to the financial markets in 1927, an American depository receipt (ADR) is a stock that trades in the United States but represents a specified number of shares in a foreign corporation. ADRs are bought and sold on American markets just like regular stocks, and are issued/sponsored in the U.S. by a bank or brokerage.

- **Un-sponsored ADRs :** This is an arrangement which is not initiated by the company concerned, but is generally set up by one or more US brokers. Un-sponsored shares trade on the over-the-counter (OTC) market. These shares



are issued in accordance with market demand, and the foreign company has no formal agreement with a depository bank. Unsponsored ADRs are often issued by more than one depository bank. Each depository services only the ADRs it has issued.

- **Sponsored ADRs:** In this case the issuing company actively promotes the company's ADRs in the USA, choosing a single depository bank, which assumes sole responsibility for administration and dividend payment. In this case, the administrative costs involved in issuing the ADRs are borne by the issuing company. The proceeds of the ADR issue are also received by the company.
- **Global Depository Receipts (GDRs) :** A global depository receipt (GDR) is a bank certificate issued in more than one country for shares in a foreign company. The shares are held by a foreign branch of an international bank. The shares trade as domestic shares but are offered for sale globally through the various bank branches. A GDR is a financial instrument used by private markets to raise capital denominated in either U.S. dollars or euros.
- **Foreign Currency Convertible Bonds (FCCB) :** Foreign currency convertible bonds (FCCBs) are a special category of bonds. FCCBs are issued in currencies different from the issuing company's domestic currency. Corporates issue FCCBs to raise money in foreign currencies. These bonds retain all features of a convertible bond, making them very attractive to both the investors and the issuers.
- **Foreign Currency Exchangeable Bonds (FCEBs):** Until 2008, the only options available for an Indian corporate to raise overseas debt were either by way of external commercial borrowings ('ECBs') or by way of foreign currency convertible bonds (FCCBs'). There was, however, no mechanism whereby the promoters of Indian companies could unlock value in their group companies to raise funds abroad. On February 15, '08, Finance Ministry notified the scheme for the issue of Foreign Currency Exchangeable Bonds Scheme, 2008 (Scheme) allowing Indian companies to leverage value in their listed group companies by way of issue of Foreign Currency Exchangeable Bonds (FCEBs').



CAIIB Paper 3 (AFM) Module A Unit 9 - International Financial Service Centre (IFSC), GIFT City

Introduction

An International Financial Service Centre (IFSC) caters to customers outside the jurisdiction of the domestic economy.

Such centres deal with flows of finance, financial products and services across the borders with emphasis on the following:

- Fund raising services for Individuals, Corporates and Governments.
- Asset Management and Global Portfolio Diversification undertaken by pension funds, insurance companies and mutual funds.
- Wealth management.
- Global tax management and cross border tax liability optimization, which provides a business opportunity for financial intermediaries, accountants and law firms.
- Global and regional corporate treasury management operations that involve fund-raising, liquidity investment and management of asset-liability matching.
- ✓ Risk management operations such as insurance and reinsurance
- ✓ Merger and acquisition activities among trans-national corporations

Scope Of IFSC In India

- Banks in International Financial Service Centres operate as foreign banks in the home country and are not subject to domestic reserve requirements on deposits.
- They seek deposits from non-resident citizens and can extend loans only to non-residents.
- Banks in IFSCs are also permitted to lend in foreign currencies to both resident corporates (for trade transactions) and non-residents.
- The main objective of the IFSC is to develop a strong global connect and focus on the needs of the Indian economy as well as to serve as an international destination for the Corporates in their financial activities.
- **The SEZ Act 2005 (Special Economic Zones Act, 2005)** allows setting up an IFSC in an SEZ or as an SEZ after obtaining approval from the Central Government.
- India has many restrictions on the financial sector, such as partial capital account convertibility, high SLR requirements and foreign investment restrictions, an SEZ can serve as a testing ground for financial sector reforms before they are rolled out in the entire nation.
- Apart from SEZ related incentives, as per the **SEZ Act, there is an exemption from the Securities Transaction Tax levied u/s 98 of the Finance Act, 2004**, in case of taxable securities transactions that are entered into by non-residents through an IFSC.

Gujarat International Financial Technology Tec-City (GIFT City)



- ✓ Established at Gandhinagar, Gujarat
- ✓ Started functioning from 5th Dec 2019
- ✓ With 225 companies including 3 PSBs, 9 Private. Sector Banks & 3 MNC Banks.

Opportunities At Gift City

- Access to large hinterland economy
- Access to international markets
- Connecting 30 Mn strong Indian diaspora which has a combined worth of USD 3 trillion to India through the IFSC
- Inbound and outbound gateway for international financial services
- Potential to be a leading destination for Global in-house Centers with a globally competitive cost structure
- Attracting global talent to the world class fin tech hub in Gift city
- Emerging as a leading hub for fund administration.

Key business opportunities – (segment-wise)

- **Wholesale banking** – ECB and Trade Finance., Factoring and Forfaiting Services, Guarantee and Indemnity business, Equipment leasing, Credit enhancement & Insurance, Risk Participation, Participation in Intl. trade finance services, Participation in aircraft leasing, syndicated loans.
- **Capital markets** – merchant banking, trading and clearing members of IFSC Exchange, funding of alternative investment funds, custodian of securities.
- **Retail Banking** – private banking, wealth management, retail banking products such as structured deposits, deposit accounts, certificate of deposits.
- **Treasury management** – ALM, Derivatives in Forex, Credit and interest rates, consolidate group-wise derivative trading, including NDF in INR and other foreign currencies to manage risk.
- **Other opportunities** – distributor of MF units, insurance and other financial products, Investment advisory services, Portfolio Management Services, trustee and fiduciary services Regional Administrative Office (RAD) and Representative office.

Guidelines For Setting Up Of IFSC Banking Units (Ibu) By Indian Banks

Eligibility –

- Indian banks viz., Banks in the Public Sector and the Private Sector authorized to deal in foreign exchange will be eligible to set up IBUs.
- Each eligible bank would be permitted to set up only one IBU in each IFSC.

Licensing –

- Eligible Banks interested in setting up IBUs will be required to obtain prior permission of the RBI for opening an IBU.



- For most regulatory purposes, an IBU will be treated on par with a foreign branch of an Indian bank.

Capital –

- The parent bank will be required to provide a minimum capital of USD 20 Mn or equivalent in any foreign currency to its IBU which should be maintained at all times.

Reserve requirements –

- The liabilities of the IBU are exempt from, both, CRR and SLR requirements of RBI.
- Resources and deployment – The funds raised will be from Non Residents and Overseas branches

Resources and deployment

- The funds raised will be from Non Residents and Overseas branches of Indian Banks.
- Deployment of funds can be with, both, persons resident in India as well as persons resident outside India.
- However, deployment of funds with persons resident in India shall be subject to the provisions of FEMA 1999.

Operational Aspects

- Cash transactions and savings bank accounts are not permitted. Deposits can be maintained in current accounts and term deposits.
- Indian KYC-AML and delinquency norms are applicable.
- Deposits with IBUs are not insured.

Role Of IFSCA

- International Financial Services Centres Authority (IFSCA) is a unified authority for the development and regulation of financial products, financial services and financial institutions in the IFSC in India.
- IFSCA has been established on April 27th 2020 under the IFSCA Act 2019 with headquarters in Gandhinagar, Gujarat.
- Since it requires a high degree of inter-regulatory coordination within the financial sector
- IFSCA has been established as a unified regulator with a holistic vision in order to promote ease of doing business in IFSC and provide world class regulatory environment.
- **Main objectives** : to develop a strong global connect and focus on the needs of the Indian economy as well as to serve as an international financial platform for the entire region and the global economy as a whole



Regulatory Framework

Indian and Foreign Banks intending to set up an IBU in IFSC are required to obtain license from IFSCA.

The Parent Bank is required to satisfy the following conditions:

- Maintain necessary regulatory capital subject to a minimum of USD 20 Mn at the Parent Bank level.
- Obtain No Objection letter from home country regulator for setting up an IBU in IFSC.
- Letter of comfort from Parent Bank regarding liquidity and resource support to IBU.
- IBUs are not required to maintain SLR and CRR.
- IBUs are required to maintain LCR and Net Stable Funding Ratio at IBU level. However, the same may be maintained at the parent level with IFSCA permission.
- Leverage ratio for IBUs may be maintained by the Parent Bank and at the level specified by the home regulator and subject to the regulations applicable to the parent bank.
- IBUs are required to maintain a retail deposit reserve ratio on daily basis at 3% of the deposits raised from individuals outstanding as at the end of the previous working day.
- IBUs are required to comply with the prudential directions and instructions issued by their home regulator unless otherwise specified by the IFSCA.

Permissible Activities At IBUs

- IBUs can undertake transactions with
 - ✓ Residents (for deployment of funds)
 - ✓ Non-residents entities other than individuals including HNIs/retail customers (for both raising of resources and deployment of funds).
- All transactions shall in currency other than INR.
- IBUs can deal with WOS/JVs of Indian companies registered abroad.
- IBUs are not allowed to open SB accounts.
- They can open foreign currency current accounts of units operating in IFSCs and of Non-resident institutional investors to facilitate their investment transactions.
- They can open foreign currency current accounts (including escrow accounts) of their corporate borrowers subject to FEMA.
- No cheque facility will be available for holders of current accounts in the IBUs.
- All transactions are to be done through bank transfers.
- IBUs are permitted to undertake factoring/forfeiting of export receivables.
- IBUs shall obtain prior approval of RBI for offering derivative products.
- IBUs are allowed to open foreign currency Escrow accounts of Indian resident entities for the purpose of temporarily subscriptions to GDR/ADR issues, until issuance of receipts.



- IBUs are allowed to act as underwriter/arranger of INR denominated Overseas bonds issued by Indian entities in Overseas markets.
- Exposure ceiling for IBUs shall be 5% of the parent's Bank Tier I Capital in case of Single borrower and 10% of the parent Bank's Tier I Capital in the case of a borrower group.
- All AML/CFT instructions issued by RBI to be followed.
- The IBUs will be regulated and supervised by the RBI.
- The IBUs would operate and maintain balance sheet only in foreign currency and will not be allowed to deal in Indian rupees except for having a special rupee account for the purpose of defraying their administrative and statutory expenses. Such operations/transactions of these units in INR would be through the AD (distinct from IBU) which would be subject to the extant foreign exchange regulations.
- IBUs are not allowed to participate in the Indian domestic call, notice, term, forex, money and other onshore markets and domestic payment systems.
- IBUs will be required to maintain separate Nostro accounts with correspondent banks which would be distinct from Nostro accounts maintained by other branches of the same bank.
- IBUs may maintain SNRR (Special Non-Resident Rupee) accounts with the domestic AD and these accounts must be funded only by foreign currency remittances through international channel.
- The loans and advances of IBUs would not be reckoned as part of the Net Bank Credit of the Parent Bank for computing priority sector lending obligations.
- No liquidity support will be available to the IBUs from the RBI.

Relaxations For The FPI (Foreign Portfolio Investors) Entities At Gift City

- SEBI has permitted FPIs registered in India to trade on exchanges operating in the GIFT City.
- FPIs are also allowed to trade in commodity derivatives on IFSC exchanges.
- Companies do not pay securities transaction tax or commodity transaction costs.
- All exchanges operate 22 hours a day and FPIs permitted to operate without any additional documentation.
- Waiver of short term capital gains tax on derivatives trade (at present FPIs pay 30% as short term capital gains tax.)
- Allowing retail investors to trade to build liquidity in the market.

CAIIB Paper 2 (BFM) Module A Unit 10: Technology in International Banking

Introduction To Digitization In International Banking – An Overview



- In the Banking industry, especially with regard to International Banking, technologies are revolutionizing the profile of the banking industry and tearing the barriers to entry and opening doors for new financial service providers.
- Competition from the startups, internet giants and the financial service providers from outside of banking, along with the increased regulations are forcing banks to accelerate their digital revolution.

Building a truly digital bank

- Rethinking customer experiences and developing efficient, effective operating models that facilitate an open ecosystem of the participants are enabled by the underlying processes, technologies and organizational structures.
- Many of the Banks who started with technology have started reengineering their architecture in order to support the updated developments in the field of digital banking, especially with regard to International banking.
- Banks need to space out their architecture based on their specific strategy and readiness to compete in the digital arena.
- Their efforts will need to be strategic in order to reach the objectives with available capital and within an acceptable time frame, thereby increasing the customer's experiences in all the areas of international banking which the customer is involved with.
- Digital strategy is based on a Bank's specific goal, vision and mission. The competitive content and target business model needs to be identified for digital reinvention.
- **Digital capabilities assessment:** identify the business and IT Capabilities that the Bank should develop based on the existing models, technology driven in those models, assess the current digital maturity and the gaps existing, to help define the overall digital capability.
- Alignment with the existing platforms and the changes required to support the desired digital maturity.
- Organization, processes, culture, assets, technology and architecture are all affected by the digitization process and should be transformed to support a bank's digital ambition.
- IT architecture alignment is a crucial element in the transformation of the operating models and the evolution of the Bank's business and IT architecture.
- The entire process re-engineering should involve traditional systems of engagement and also the current digital enablers used in the front-office, back office and the other operational systems so that the experience of the customers, post advancement, will increase thereby leading to increased business growth
- Once the go-ahead is decided, the digital re-engineering roadmap with the operating model, target architecture, bank's budget plan, resources and the risk appetite need to be defined along with the timelines, costs, resources, risks and the expected returns.

The following may be broad thoughts on upgrading the bank's digital re-engineering plans:

- Making the bank more relevant to Customers with more flexible financial and non-products.
- Relative benefits of speed vis-à-vis in-house talent.

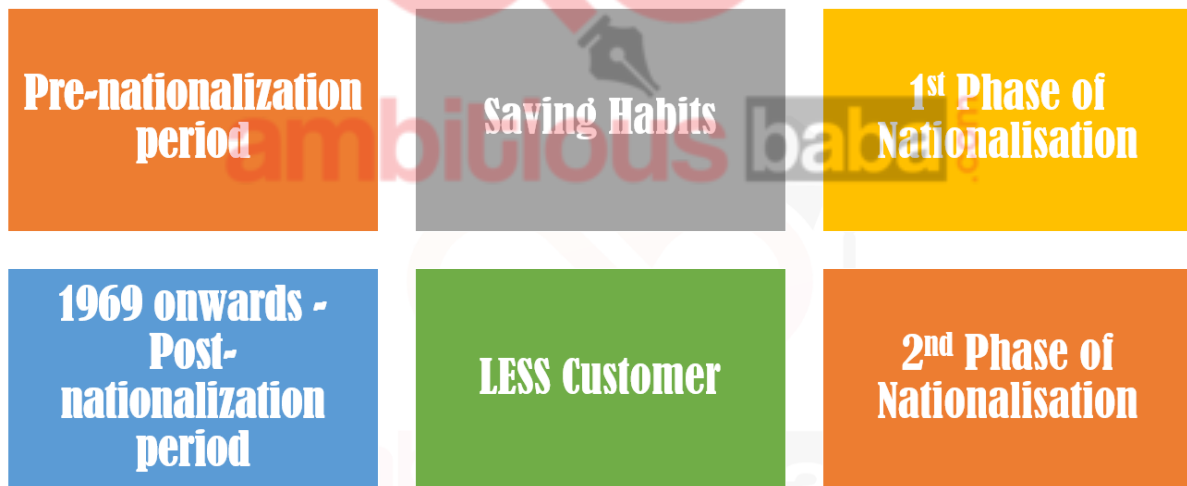


- Developing the digital eco-systems and platforms that deliver traditional and non-traditional products to customers.
- Organization readiness to re-assigning, re-training and, if need be, recruiting additional resources.
- Becoming pro-active and agile to customers responses and market request.
- Self-assessment and driving team work to react to the changing market conditions and monitoring the progress at regular intervals and not simply following a plan.

Evolution Of Technology In International Banking

Technology has transformed the entire banking landscape in the past 5 decades and following is a brief takeaway on the stages in evolution of Banking technology in India.

- Pre-nationalization period – most of banking activities were manual in view of the fact that the country’s population was illiterate.
- To take advantage of the increased savings habits and also the need for borrowing funds for the economic development, the customers increased their visit to the Bank’s Branches for utilizing the manual services provided by the then Banks.
- To take advantage of the increased savings habits and also the need for economic development of the country and reaching the banking services to the nook and corner of the country, the Government under the Nationalization of Banks Act, nationalized 14 Banks into **government banks in 1969**.



- **1969 onwards - Post-nationalization period** – most of banking activities were centered around investment of surplus savings available with the population.
- Though the need for borrowing was prevalent, many of the customers were unable to reach out to the Banks and hence the lending by the financial intermediaries were the norm of the day who used to charge higher rates of interest for their lending.



- The country saw rapid progress through the nationalized banks and by 1980, the Banking Sector witnessed tremendous growth and appetite towards savings by the population who had surplus monies and borrowing by the community who had shortage of funds for their businesses increased.
- 1980 started the 2nd phase of nationalization wherein an additional 6 Banks were brought into the fold of the Government ownership.
- The hunger for technology in banking started during this period wherein the Banking sector wanted to take advantage of the technological developments that were witnessed across the global developed countries.
- There is no turning back since then and there has been good progress both in terms of business growth and the technological advancements in the banking space.
- What started as ALPMs (Advanced Ledger Posting Machine) in the 1980s got converted into the data entry machines which resulted into introduction of computers in Banking.
- To take advantage of Internet Banking, 1990s witnessed Banks taking strides into internet banking, ATMs, Credit Cards and the **Debit Cards, slowly the activities turned to on-line banking.**

Benefits And Limitations Of Technology In International Banking

Benefits: accuracy, speed, lower transaction costs ease of doing business, compliance, reduction in manpower, regulatory requirement, management Information system, continuity in business, etc.

Limitations: costs in Infrastructure, technical glitches, creating awareness amongst customers because of the widespread reach, putting in control limits for withdrawal and deposits may pose inconveniences to customers, customers service gets affected at times, security issues, cybercrime is on the increase and added to this is the frauds by external sources.

Digital Platforms In International Banking

Inward Remittances Online

- A secured portal for on-line inward remittances from across the Overseas locations.
- Online Money transfer from across the globe, by the NRIs from their country of location or any Overseas Bank from any country (FATF compliant countries) to any Bank account in India.
- NRIs to get registered on the Internet Banking Platform of their Bank and get the log-in ID and the password from the Bank subject to adhering to the internal guidelines of the Bank relating to registration.
- Register the receiver details, Bank details of the receiver, keep the receiver informed and book the transaction and the transfer the money.



- Purpose code details to be filled in and many Banks only allow current account transactions and the regulatory guidelines needs to be adhered to be the remitter.

Benefits:

- Quick and seamless transfers from any country (as long as the country is FATF compliant),
- Fixed and fair exchange rates,
- 24/7 customer support.

Outward Remittances Online

- A quick and seamless on-line portal for outward remittances.
- Residents and NRIs, on request through an application form and subject to Bank's internal guidelines, will get on-boarded by the Bank for International Digital Banking.
- Log in ID and password generated by the Bank to the Customer's registered email-ID.
- Process flow

Select the Forex Tab on the Internet Banking Portal of the Bank

Add Beneficiary

Begin payment by initiating Select Beneficiary from the list of beneficiaries

select the purpose code and depending on the purpose code, additional details need to be filled.

Banks may provide an internal control limit up to which the outward remittances can be initiated on line which would be well below the overall limit as prescribed under the regulatory guidelines

Status of the transaction initiated may be checked by the customer on-line including generating the MT 103. (Customer to Customer SWIFT transfer).

Benefits:

- Fast, easy and convenient way of outward remittances.
- Secure facility for transfer of money (in permissible currencies) via internet banking.
- All purposes as permissible under Schedule III remittances as per the provisions of FEMA and subject the permissible limits under the relevant provisions.



- Education, Family Maintenance, Self-transfer, Health services, NRE repatriation, etc., can be sent directly in beneficiary home currency (subject to permissible currencies) and facility available 24/7.
- World Check List (scrubbing the inward remittance (remitters) and the outward remittances (beneficiaries) to comply with the US/UN/FATF sanction and the related guidelines will also be complied by the Bank through these on-line portals.

Trade Finance Portal

- Web based online portal for International Trade transactions viz., Imports and Exports.
- A web based online trade portal of the Bank for the trade finance transactions which enables customers of the Bank to initiate, authenticate authorize trade finance transactions in a paperless environment making it a sustainable trading service.
- Anywhere, anytime banking for International trade transactions available on-line.
- All trade transactions relating to Imports (including Buyer's credit) and all trade transactions relating to Exports (including Pre-shipment and Post-shipment) may be handled on-line through the trade portal.

Benefits:

- Templated transactions and in compliance with the provisions relating to International Trade.
- Bulk upload facility available.
- Approval of the transactions by the corporate online through maker-checker facility.
- Copies of advices, ready reference to debit and credit entries, SWIFT copies available online.
- Details on limits sanctioned (LC/BG limits), limit availability, limits utilized, etc., available online.
- Role based dashboards, overview of pending actionable items viz., IDPMS, EDPMS, Forward contract confirmations, etc., available for different user categories.

Foreign Exchange Rate Portal

- Portal provided to the Corporates who meet the criteria set up by the Bank for getting on-boarded after getting the log-in ID and the password, as per the internal guidelines.
- Enables the corporates to directly log on to the Bank's Internet Banking Platform and access the Foreign Exchange Rate Portal.
- Corporates allowed to access the dealing room on a real-time basis for booking their foreign exchange requirements including Cash, tom, spot and forward contracts.



- Corporates confirming the deals through the portal are under obligation to comply with the regulatory guidelines with regard to submission of underlying documents.
- Non-compliance in respect of submission of documents will result in the deal automatically getting cancelled by the Bank and losses recovered from the Corporate in this regard.
- Banks insist for executing a one-time Indemnity agreement while on-boarding to indemnify the Bank for any losses that could arise from non-compliance of regulatory guidelines.

Benefits:

- Seamless interaction through the portal with the Bank's dealing room on rate movements.
- Advisory from the Bank's dealers on the Inter-Bank markets and the latest developments on the exchange front.
- Real time rate quotation basis.

Export Data Processing and Monitoring System (EDPMS)

The Reserve Bank of India (RBI) operationalized the Export Data Processing and Monitoring System (EDPMS) w.e.f. March 1, 2014 wherein the data pertaining to Export Declaration Forms (EDF)/ Shipping Bills (SB)/ SOFTEX would flow from the Customs/STPI/SEZ to the EDPMS Software and AD Banks were required to report lodgment and realization of these EDF/SB/SOFTEX in EDPMS.

Various enhanced versions of EDPMS with certain additional features which are supported through technology:

- Reporting of advance remittances related to exports.
- Reporting realization of EDF/SB/SOFTEX against inward remittances reported.
- System based caution listing of exporters whose EDF/SB/SOFTEX were outstanding beyond 2 years and where extension of due date was not granted by AD Bank/RBI.
- Issuance of e-BRC was introduced w.e.f. 16th Oct 2017, as a result of which AD Banks were to update the EDPMS with data of export proceeds on "as and when realized basis" to facilitate AD Banks to issue e-BRC only from the data available in the EDPMS.
- However, the export transactions relating to Service Exports are not supported under the EDPMS Platform.
- System based caution listing of exporters whose EDF/SB/SOFTEX were outstanding **beyond 2 years** and where extension of due date was not granted by AD Bank/RBI.
- Issuance of e-BRC [e Bank Realisation Certificate] was introduced w.e.f. 16th Oct 2017, as a result of which AD Banks were to update the EDPMS with data of export proceeds on "as and when realized basis" to facilitate AD Banks to issue e-BRC only from the data available in the EDPMS.



- However, the export transactions relating to Service Exports are not supported under the EDPMS Platform.

Import Data Processing and Monitoring System (IDPMS)

- In order to enhance ease of doing business and facilitate efficient data processing for payment of import transactions and effective monitoring thereof, IDPMS has been developed in consultation with the customs authorities and other stakeholders.
- Based on the AD Code declared by the importer, the Banks shall download the BoE (Bill of Entry) issued by EDI [Electronic Data Exchange] Ports from the BoE Master in the IDPMS.
- For non-EDI ports, AD Bank of the importer shall upload the BoE data in IDPMS as per message format “Manual BoE reporting” on a daily basis on receipt of BoE from the Customer/Customs office.
- **ADVANCE PAYMENT:** AD Banks will enter the BoE details for ORM associated with the advance payment for import transactions as per the message format “BoE Settlement.
- In case of payment after receipt of BoE, the AD Bank shall generate ORM (Outward Remittance Message) for import payment made by its importer as per the message format “**BoE Settlement**”.
- Multiple outward remittances can be settled against single BoE and also multiple BoE can be settled against one Outward remittance.
- In case of Import of services, the IDPMS platform does not facilitate reporting of such transactions or remittances routed through the AD Banks.
- The AD Bank need to follow up with the Importer (for services) till such time the remittance towards which service imports are requisitioned are completed.

Fintech And Evolution Of Fintech In International Banking

Meaning and understanding FINTECH

- Fintech refers to the synergy between finance and technology.
- It can take the form of software, a service or a business that provides technologically advanced ways to make financial processes more efficient by disrupting traditional methods.
- Digitization of financial services, normally provided by Banks, Credit Card Companies, Credit Unions, Investment Banking and other businesses within the financial services industry.
- Used to automate investments, insurance, trading, banking services and risk management
- Fintech is equipping the banking industry with tools that makes it more efficient than before.
- Banking Institutions are using tools like the chat bots, to enhance customer experiences, mobile applications, etc to give the customers real time looks into their bank accounts and machine learning to secure against frauds.



- Fintech is a new Financial & technology Industry used to improve financial services activities.
- **FINTECH** is any innovative idea that improves financial service processes by proposing technological solutions according to different business situations, while the ideas could also lead to new business models or even new businesses.

Evolution of FINTECHs – A Snapshot

- **1866** – the first transatlantic cable was successfully laid between New York and London providing fundamental infrastructure for the period of intense financial globalization. FINTECH Version 1.0
- **1918** – FEDWIRE, the first electronic funds transfer with the help of telegraph and Morse Code
- **1950** – Diners Club and Amex Cards
- **1967** – though financial services were strongly connected with technology, the financial services remained mostly analogue i.e. using signals, codes until the first ATM machine by Barclays was introduced thereby switching from Analogue mode to the Digital mode. This came to be known as the beginning of Modern FINTECH i.e. FINTECH Version 2.0
- **1967** – first digital stock exchange and SWIFT (Society for Worldwide Inter-Bank Financial Telecommunication) was established. Internet and Computers were brought into on-line banking.
- **2008** – brought in FINTECH Version 3.0 as a result of the financial crisis that erupted across the globe where people start distrusting traditional banking services.
- **2009** – Bitcoin introduced followed by other different crypto currencies. Google and Apple Pay introduces payment systems.
- **2010** - FINTECH Version. 3.5 mainly by the Asian countries where Entrepreneurs, Investors, Consumer businesses and Banks were introduced to FINTECH and FINTECH business applications.

FINTECH - Global Perspective

- Global investments in FINTECH increased by more than 2200% from USD 930 Million in 2008 to more than USD 22 Billion in 2015.
- In Europe, USD 1.50 billion was invested in FINTECH in 2014 with London based companies receiving USD 539 Mn, Netherland based companies receiving USD 306 Mn, Sweden receiving USD 266 Mn, etc.
- FINTECH companies in USA raised USD 12.4 billion in 2018
- Sydney is the biggest FINTECH center and contributes 9% to the country's GDP.
- Monetary Authority of Singapore has pledged to spend USD 225 Mn in FINTECH in the next 5 years.
- South East Asian FINTECH companies have increased Venture Capital funding from USD 35 Mn to USD 679 Mn in 2018 and to USD 1.14 Billion in 2019.

FINTECH and India



- India has the highest FINTECH adoption rate globally.
- Of the 2,100 + FINTECH companies existing in India today, over 67% have been set up in the last 5 years.
- Of the 2,100 + FINTECH companies in India as of August 2020, 17% of the FINTECH companies are into digital payments, 17% of them are into lending, 14% into wealth, making India the second largest FINTECH hub after USA.
- Fintechs are set to grow from USD 66 Billion in 2019 to USD 133 Billion by 2023.
- As the country with second largest base of internet users, India has quickly adopted to the world of FINTECH.

Delivery Channels Under Fintech In International Banking

FINTECH and Artificial Intelligence

- Artificial intelligence is the simulation of human intelligence processes by machines which combines computer systems and robust databases to enable problem solving in the Banking space.

The following are some of the scenarios where AI may be used:

- Identify customers better – prospecting, sourcing, underwriting – onboarding of Customers, both Importers, Exporters, etc., who are involved in international trade with the Overseas buyers and suppliers.
- Source business better – cash flows, business models, structures and managing global value chains, change in consumer demand and to better manage risks involved in international trade.
- AI has the potential to be used to improve outcome from the international trade negotiations analyzing the economic trajectories of each economic partner under different assumption.
- Identify the needs of the Customers and analyzing their inward and outward volumes, their overseas counterparties, periodicity of payments, collections, etc.
- Business Intelligence of the Clients viz., processing ability, recovery analysis (credit management) understanding the maturity profile of receivables (Exports) and payables (Imports)
- Credit Scoring – check on the credit worthiness of the Clients – lending is all about availability of data through which willingness/ability to repay can be analyzed, assessing financial statements and analysis, etc.
- Fraud detection by fixing through threshold limits, regulatory compliance – working in tandem with the regulators, etc.

FINTECH and Big Data & Data Analytics

- Data analytics helps stakeholders in International Trade to create new portfolios by using historical data and analyzing past trends and patterns in terms of international geographies, which are more prone to volatile movements of rates, exploring opportunities with countries with political stability, countries with robust infrastructure development, etc.

- Big data is the use of advanced analytic techniques against very large, diverse data sets that includes both structured, semi-structured and raw data where refining these data helps in coming out with desired analysis.

The following are some of the application areas to big data analysis:

- ✓ Data on customers is of high value to FINTECH Companies
- ✓ Data on markets is of high value to FINTECH Companies
- ✓ Consumer Preferences, spending habits, investment behavior can be extracted and used to develop predictive analysis.
- ✓ Predictive analysis – refers to how consumers are likely to behave using past information and a mathematical algorithm.
- ✓ Data helps in formulating marketing strategies.
- ✓ Helps in fraud detection algorithm.



FINTECH and Robotic Process Automation (RPA)

- RPA refers to the process of assigning manual repetitive tasks to robots instead of humans in order to streamline workflows in financial institutions.

The most widespread applications are:

- ✓ Statistics and data collection
- ✓ Regulatory compliances management
- ✓ Communication and marketing through emails and chatbots
- ✓ Transaction management

FINTECH and Block Chain Management

- Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.
- A Blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the Blockchain.



- Adopted at a large scale in the financial industry, primarily due to its ability to securely store transaction records and other sensitive data.
- Each transaction is encrypted and the chances of cyberattacks are relatively low when block chain technology is employed and has created tremendous strides in the area International Trade Finance.

Advantages:

- ✓ Disrupted Banks Trade Finance Technologies quite like the manner in which internet disrupted the media earlier.
- ✓ It is a very highly secure and transparent digital ledger and relatively economical to operate without intervention of any third party
- ✓ Creates a permanent record of all the trade transactions thereby creating a valid audit trail.

Advantages of Using Blockchain Technology in International Trade Finance

- **Real time review** – financial documents linked and accessible through block chain are reviewed and approved on real time, reducing the time it takes to initiate shipment.
- **Transparent factoring** – invoices accessed on block chain provide a real time and transparent view into subsequent short-term financing.
- **Disintermediation** – banks facilitating trade finance through block chain do not require a trusted intermediary to assume risk, eliminating the need for correspondent banks.
- **Reduced counter party risk** – BLs are tracked through block chain, eliminating the potential for double spending.
- **Decentralized contract execution** – as contract terms are met, status is updated on block chain in real time reducing the time and headcount required to monitor the delivery of goods.
- **Proof of ownership** – the title available within block chain provides transparency into the location and ownership of goods.
- **Automated settlement and reduced transaction fees** – contract terms executed via smart contracts eliminate the need for correspondent banks and additional transaction fees.
- **Regulatory transparency** – regulators are provided with a real time view of essential documents to assist in enforcement and AML activities.

Challenges in Using Blockchain Technology in Cross Border Transactions

- Regulatory and Compliance issues are the 2 biggest factors - this is believed to contribute towards internal resistance to adoption of blockchain which is to be addressed.
- An additional data layer along the payment process involving blockchain is to be introduced.

- Using the data layer, the regulatory and compliance requirements to be implemented around the details of the transaction.
- Transaction monitoring is another area which needs urgent attention.
- Validating the details of the originator, validating the details of the beneficiary, FATF sanctions, OFAC sanction screening, etc.
- The number and amount of suspicious transactions and the routing of transactions through high risk countries need to be monitored meticulously.

Blockchain Technology in the Indian Perspective

- Indian Block Chain Infrastructure Co. Pvt Ltd – a company formed by 15 Schedule Commercial Banks in June 2021 having an identical stake of 6.66% by each of the Banks.
- Block chain technology to use and /process Inland LC transactions within the country for domestic trade.
- System will verify data using invoices on the GST System and e-Way bills which will quicken the transactions and also eliminate risk of frauds.
- Eliminate paper work, reduce transaction time, secure environment.
- Network connectivity between Banks and the clients.
- Based on Infosys Finacle Connect.
- All the involved parties can share a digital ledger across a computer network without needing centralized authority or intermediaries.

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CAIIB Paper 2 (BFM) Module B: Risk Management

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Unit 8	Basel III Framework on Liquidity Standards

CAIIB BFM Module B Unit 1: Risk and Basic Risk Management Framework

What Is Risk?

In most cases, we observe that there is deviation in what we achieve from what we had planned or what we had expected. This unpredictability of future is due to uncertainties associated with the steps that we undertake in the process or various external factors that influence the processes that are necessary to achieve our planned objective.

We may define 'Risks' as uncertainties resulting in adverse outcome, adverse in relation to planned objective or expectations. 'Financial Risks' are uncertainties resulting in adverse variation of profitability or outright losses.

Uncertainties associated with risk elements impact the net cash flow of any business or investment. Under the impact of uncertainties, variations in net cash flow take place. This could be favourable as well as unfavourable. The possible unfavourable impact is the 'RISK' of the business.

Lower risk implies lower variability in net cash flow with lower upside and downside potential. Higher risk would imply higher upside and downside potential.

- **Lower risk:** implies lower variability in net cash flow with lower upside and downside potential. Higher risk would imply higher upside and downside potential.



- **Zero Risk** would imply no variation in net cash flow. Return on zero risk investment would be low as compared to other opportunities available in the market.

Linkages Among Risk, Capital & Return

Linkage Between Risk & Capital:

Cash Flow from	Invest ment 1	Invest ment 2
1	6	3
2	6	9
3	6	5
4	6	-2
5	6	15
Total	30	30
Avg	6	6

- Higher the risk, higher the capital & vice-versa.
- Bank maintain capital funds as percentage of RWAs.
- Banks creating low risk assets can maintain low capital
- Bank exposing to high risk assets, have to maintain high capital
- If time value of money is not considered, both these investment yields Rs.30000 over a 5 year @ 12% pa.
- In this case Investment 1 is preferable bcz steady cash flow)
- If return is 10% and 12% on I1 & I2
- Investment 2 is preferred – 2% extra return but carries more risk as well.
- Hence RAROC = $12 - 2 = 10\%$

Basic Risk Management Framework

The basic considerations that should be taken into account for designing a risk management framework in an organisation are as follows:

1. Management of risk is a major concern for the top management. Successful implementation of risk management process emanates from the top management and the main challenge centres on facilitating the implementation of risk and business policies simultaneously in a consistent manner. Modern best practices consist of setting risk limits based on economic measures of risk while ensuring the best



risk adjusted return keeping in view the capital that has been invested in the business. It is a question of taking a balanced view on risks and returns and that too within the constraints of available capital.

2. Management of risks begins with their identification and quantification. It is only after risks are identified and measured that we may decide to accept the risks or to accept the risks at a reduced level by undertaking steps to mitigate the risks, either fully or partially. In addition, pricing of the transaction should be in accordance with the risk content of the transaction.

3. Risk management happens to be a job that requires special skills and has an objective which is more orientated towards the control aspect of the business, it requires a separate setup in the organization.

Response to these considerations calls for risk management framework in an organization that has well articulated processes covering the following areas:

- Organization for Risk Management
- Risk Identification
- Risk Measurement
- Risk Pricing
- Risk Monitoring and Control
- Risk Mitigation

Organisation for Risk Management

Usually, risk management organization consists of:

- The Board of Directors
- The Risk Management Committee of the Board
- The Committee of senior-level executives
- The Risk management support group

Risk Identification

Nearly all transactions undertaken would have one or more of the major risks, i.e., **liquidity risk, interest rate risk, market risk, default or credit risk and operational risk with their manifestations in different dimensions.** Although all these risks are contracted at the transaction level, certain risks such as risk and interest rate risk are managed at the aggregate or portfolio level. Risks such as credit risk, operational risk and market risk arising from individual transactions are taken cognizance of, at the transaction-level as well as at the portfolio-level.

Risk Measurement

Risk management relies on the quantitative measures of risk. The risk measures seek to capture variations in earnings, market value, losses due to default, etc.,



(referred to as target variables), arising out of uncertainties associated with various risk elements. Quantitative measures of risks can be classified into three categories

- Based on Sensitivity
- Based on Volatility
- Based on Downside Potential

Sensitivity: Sensitivity captures deviation of a target variable due to unit movement of a single market parameter. Only those market parameters, which drive the value of the target variable are relevant for the purpose.

Volatility: It is possible to combine sensitivity of target variables with the instability of the underlying parameters. The volatility characterises the stability or instability of any random variable. It is a common statistical measure of dispersion around the average of any random variable such as earnings, mark-to-market values, market value, losses due to default, etc.

Downside Potential: Risk materialises only when earnings deviate adversely. Volatility captures both upside and downside deviations. Downside potential only captures possible losses ignoring the profit potential. It is the adverse deviation of a target variable.

Risk Pricing

Risks in banking transactions impact banks in two ways. Firstly, banks have to maintain necessary capital, at least as per regulatory requirements. The capital required is not without costs. The cost of capital arises from the need to pay investors in bank's equity in the form dividends and for internal generation of capital necessary for business growth. Each banking transaction should be able to generate necessary surplus to meet this costs. The pricing of transaction must take into account the factors discussed in this para.

Pricing, therefore, should take into account the following:

- Cost of Deployable Funds
- Operating Expenses
- Loss Probabilities
- Capital Charge
- Profit Margin or Return on Network

Risk Monitoring and Control

The key driver in managing a business is seeking enhancement in risk-adjusted return on capital (RAROC). Therefore, the approach to risk management cannot be in isolation or in stand-alone mode. The approach to risk management centres on facilitating implementation of risk and business policies simultaneously in a consistent manner. Modern best practices consist of setting risk limits based on economic



measures of risk while ensuring the best risk adjusted return, keeping in view the capital that has been invested in the business. It is a question of taking a balanced view on risks and returns and that too within the constraints of available capital.

In order to achieve the above objective, banks put in place the following:

- An organizational structure.
- Comprehensive risk measurement approach.
- Risk Management Policies adopted at the corporate level, which are consistent with the broader business strategies, capital strength, management expertise and risk appetite.
- Guidelines and other parameters used to govern risk taking including detailed structure of prudential limits, discretionary limits and risk-taking functions.

Risk Mitigation

Since risks arise from uncertainties associated with the risk elements, risk reduction is achieved by adopting strategies that eliminate or reduce the uncertainties associated with the risk elements. **This is called "Risk Mitigation".**

Enterprise-Wide Risk Management (EWRM)

- EWRM can be defined as a continuous and structured process of listing the objectives of the organisation;
- identifying all external and internal risk-factors that could impact the achievement of the objectives and organisation's business and financial targets; prioritising the risk-factors;
- Exploring alternatives for mitigating the risks; and controlling and monitoring such risks.
- Thus, EWRM encompasses the entire gamut of the organisation's operations and is not limited to a single event or circumstance impacting the organisation's functioning. It is a dynamic process involving people at all levels, covers every aspect of the organisation's resources and operations and takes a holistic picture of the entire organisation for the purpose of risk management.

The implementation of EWRM involves the following steps:

Evaluation of the existing risk management systems involving

- Review of the internal environment with a view to assess the risk philosophy and risk culture
- Review of the process of setting objectives
- Assessment of the existing mechanism of identifying risk-factors that can affect achievement of the desired objectives
- Evaluation of the existing process of assessing risks
- Assessment of the process of responding to identified risks
- Evaluation of the adequacy of existing control processes
- Assessment of the adequacy of existing management information system (MIS)



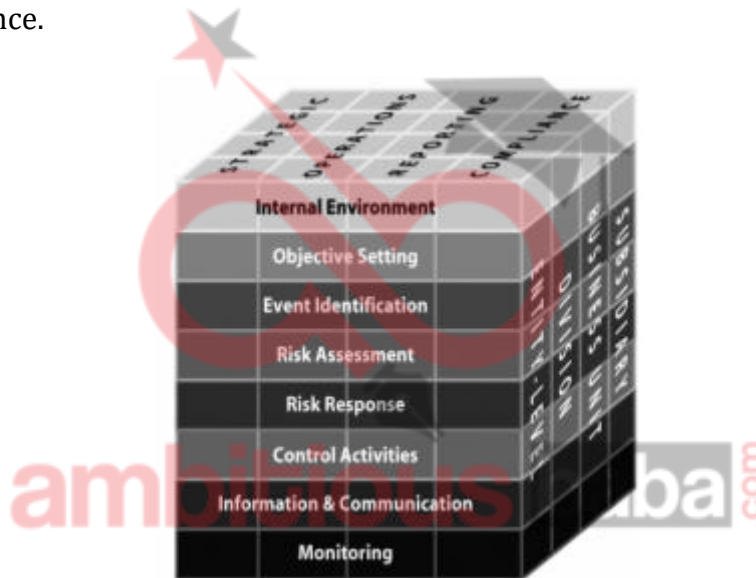
- Review of the process of monitoring risks

Formulation of a road map for the implementation plan that seeks to bridge the gaps in risk management practices vis-à-vis EWRM.

- Banks have identified and started adapting the Enterprise Risk Management Framework released by COSO (Committee of Sponsoring Organizations of the Treadway Commission) as a framework to drive their initiatives in risk management beyond Basel norms and regulatory compliances.
- The COSO ERM framework has all the components that could help the banks to stand a chance to derive business value while meeting compliance requirements.

The ERM Framework is structured around:

- Eight key components viz Internal Environment, Objective setting, Risk Assessment, Risk response, Control Activities, Information & Communication, Monitoring
- Four key objectives of business viz. strategic, operations, reporting and compliance.



Enterprise risk management (ERM) helps in identifying and selecting among alternative risk responses – risk avoidance, reduction, transfer, and acceptance. It helps to ensure effective reporting and compliance with laws and regulations, and avoid damage to the entity’s reputation and associated consequences. As the risks keep constantly changing and evolving in a global economy, ERM is a never ending journey.

CAIIB BFM Module B Unit 2: Risk in Banking Business

Risk Identification In Banking Business

Banking business lines are many and varied. Commercial banking, corporate finance, retail banking, trading and investment banking and various financial services form the main business lines of banks Within each line of business, there are



sub-groups and each sub-group contains a variety of financial activities. Bank's clients may vary from retail consumer segment to mid-market corporate/large corporate financial institutions. Banking services may differ appreciably for each segment even for similar services.

Business Lines of Banking Industry		
Business Lines	Sub-groups	Activities
Corporate Finance	Corporate Finance Municipal/Government Finance Merchant Banking Advisory Services	Mergers and acquisitions, underwriting privatisations, securitisation, research, debt (government, high yield), equity, syndications, IPO, secondary private placements
Trading and Sales	Sales Market making Proprietary Positions Treasury	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage
Retail Banking	Retail Banking Private Banking Card Services	Retail Lending & Deposits, Banking Services, Trust and Estates Private Lending & Deposits, Banking Services, Trust and Estates, Investment Advice Merchant/Commercial Corporate Cards, Private Labels and Retail
Commercial Banking	Commercial Banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange



Payments and Settlement	External Clients	Payments and collections, funds transfer, clearing and settlement
Agency Services	Custody Corporate Agency Corporate Trust	Escrow, depository receipts, securities lending (customers), corporate actions Issuer and paying agents
Asset Management	Discretionary Fund Management Non-Discretionary Fund Management	Pooled, segregated, retail, institutional, closed, open, private equity Pooled, segregated, retail, institutional, closed, open
Retail brokerage	Retail Brokerage	Execution and full service

From the risk management point of view, banking business lines may be grouped broadly under the following major heads.

- The Banking Book
- The Trading Portfolio
- Off-Balance Sheet Exposures

The Banking Book

The banking book includes all advances, deposits and borrowings, which usually arise from commercial and retail banking operations. All assets and liabilities in banking book have the following characteristics:

- They are normally held until maturity.
- Accrual system of accounting is applied.
- They are not subjected to MTM (mark to market) exercise.
- They attract capital charge on credit risk and not on market risk.

The Trading Book

The trading book includes all the assets that are marketable, i.e., they can be traded in the market. Contrary to the characteristics of assets and liabilities held in the banking book, the trading book assets have the following characteristics:

- They are normally not held until maturity and positions are liquidated in the market after holding the assets for a certain period



- Mark-to-Market system is followed and the difference between the market price and the book value is taken to profit and loss account.

The trading book mostly comprises of fixed income securities, equities, foreign exchange holdings, commodities, etc., held by the bank on its own account.

Off-Balance Sheet Exposures

- **Off-balance sheet exposures are contingent in nature. Where banks issue guarantees, committed or backup credit lines, letters of credit, etc.,** banks face payment obligations contingent upon some event.
- These contingencies adversely affect the revenue generation of banks. Banks may also have contingent assets (for example, a bank may have purchased insurance to protect against certain negative events).
- Here banks are the beneficiaries subject to certain contingencies. Derivatives are off-balance sheet market exposures. They may be swaps, futures, forward contracts, foreign currency contracts, options, etc.

Banking Risks - Definitions

From the discussion above, we may summarise the major risks in banking business or "Banking Risks". They are listed as follows:

- Liquidity Risk
- Interest Rate Risk
- Market Risk
- Default or Credit Risk
- Operational Risk

Liquidity Risk

The liquidity risk of banks arises mainly from funding of long-term assets by short-term liabilities, thereby making the liabilities subject to rollover or refinancing risk. Liquidity Risk is defined as the inability to obtain funds to meet cash flow obligations at a reasonable rate.

- **Funding Risk:** This arises from the need to replace net outflows due to unanticipated withdrawal non-renewal of deposits (wholesale and retail)/premature closure of term deposits;
- **Time Risk:** This arises from the need to compensate for non-receipt of expected inflows of funds i.e. performing assets turning into non-performing assets; or borrowers not repaying their instalments (EMI) on due dates; and
- **Call Risk:** This arises due to crystallization of contingent liabilities since customers are not meeting their commitments on due dates. This may also arise when a bank may not be able to undertake profitable business opportunities when it arises.



Interest Rate Risk

Interest Rate Risk (IRR) is the exposure of a Bank's revenue to adverse movements in interest rates. Interest Rate Risk (IRR) refers to potential adverse impact on Net Interest Income or Net Interest Margin or Market Value of Equity (MVE), caused by changes in market interest rates. It may be defined as the risk of changes in the financial value of assets or liabilities (or inflows/outflows) because of fluctuations in interest rates.

- **Gap or Mismatch Risk:** A gap of mismatch risk arises from holding assets and liabilities and off-balance sheet items with different principal amounts, maturity dates or repricing dates, thereby creating exposure to unexpected changes in the level of market interest rates.
- **Basis Risk:** The risk that the interest rate of different assets, liabilities and off-balance sheet items may change in different magnitude is termed as basis risk.
- An example of basis risk would be to say in a rising interest rate scenario asset interest rate may rise in different magnitude than the interest rate on corresponding liability creating variation in net interest income.
- **Yield Curve Risk:** In case the banks use two different instruments maturing at different time horizon for pricing their assets and liabilities, any non-parallel movements in yield curves would affect the NII.
- **Reinvestment Risk:** Uncertainty with regard to interest rate at which the future cash flows could be reinvested is called reinvestment risk. Any mismatches in cash flows would expose the banks to variations in NII as the market interest rates move in different directions.
- **Net Interest Position Risk:** Where banks have more earning assets than paying liabilities, interest rate risk arises when the market interest rates adjust downwards. Such banks will experience a reduction in NII as the market interest rate declines and increases when interest rate rises. Its impact is on the earnings of the bank or its impact on the economic value of the bank's assets, liabilities and OBS positions.

Market Risk

Market risk is the risk of adverse deviations of the mark-to-market value of the trading portfolio, due to market movements, during the period of holding. This results from adverse movements of the market prices of interest rate instruments, equities, commodities and currencies. Market Risk is also referred as Price Risk.

- **Forex Risk:** Forex risk, also termed as Exchange Risk, is the risk that a bank may suffer losses as a result of adverse exchange rate movements during a period in which it has an open position, either spot or forward, or a combination of the two, in an individual foreign currency.



- **Marker Liquidity Risk:** Market liquidity risk arises when a bank is unable to conclude a large transaction in a particular instrument near the current market price.

Default or Credit Risk

Credit Risk is most simply defined as the potential of a bank borrower or counterparty fail to meet its obligations in accordance with agreed terms. For most banks, loans and corporate bonds are the largest and most obvious source of credit risk.

- **Counterparty Risk:** This is a variant of credit risk and is related to non-performance of the trading partners due to counterparty's refusal and or inability to perform. Normally such defaults happen in Call money borrowing between banks since it is purely unsecured. The counter-party risk is generally viewed as a transient financial risk associated with trading rather than standard credit risk.
- **Country Risk:** This is also a type of credit risk where non-performance by a borrower or counter-party arises due to constraints or restrictions imposed by a country. In this case, the reasons for non-performance are external factors on which the borrower or the counterparty has no control.

Operational Risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Strategic risk and reputation risk, though in the nature of operational risk, are not covered under the definition of operational risk by BCBS.

- **Transaction Risk:** Transaction risk is the risk arising from fraud, both internal and external, failed business processes and the inability to maintain business continuity and manage information.
- **Compliance Risk:** Compliance risk is the risk of legal or regulatory sanction, financial loss or reputation loss that a bank may suffer as a result of its failure to comply with any or all of the applicable laws, regulations, codes of conduct and standards of good practice. It is also called integrity risk since a bank's reputation is closely linked to its adherence to principles of integrity and fair dealing.
- **Strategic Risk:** Strategic Risk is the risk arising from adverse business decisions, improper implementation of decisions, or lack of responsiveness to industry changes. This risk is a function of the compatibility of an organisation's strategic goals, the business strategies developed to achieve those goals, the resources deployed against these goals and the quality of implementation. In short, this risk calls for whether there is gap between the strategy aimed at and implemented. If there is a gap, then the strategy is not implemented in letter and spirit.



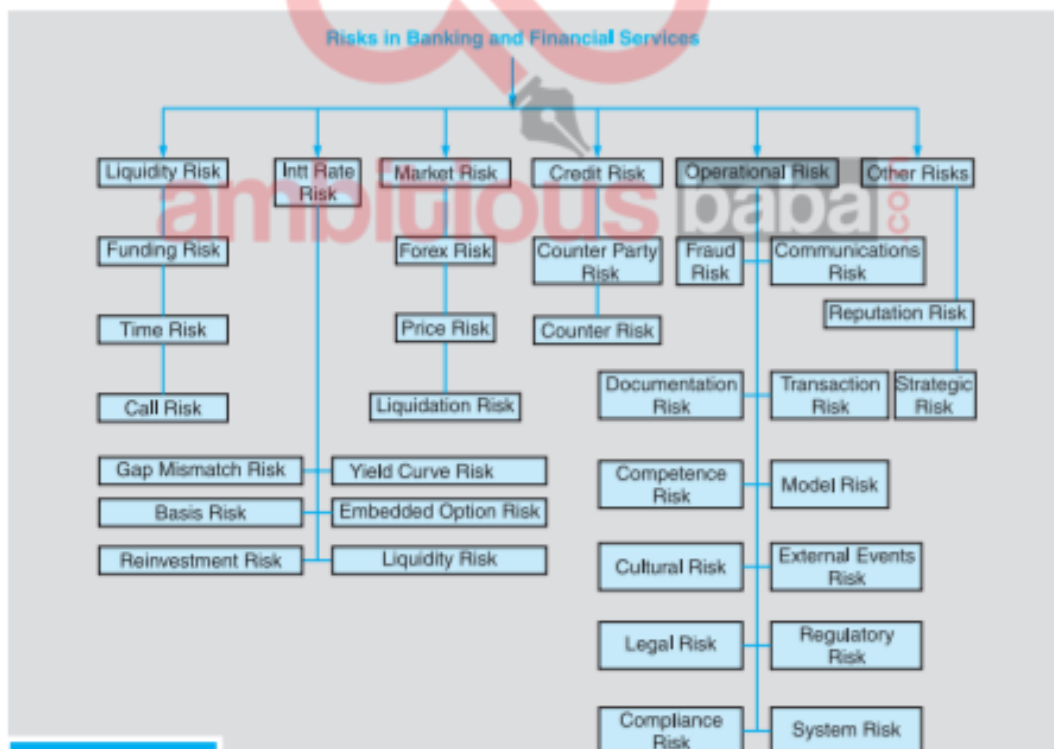
- **Reputation Risk:** Reputation Risk is the risk arising from negative public opinion. This risk may expose the institution to litigation, financial loss, or a decline in customer base. Risks faced by banking and financial services may be summarised as shown in

Model Risk

Models are designed to predict values of variables for which it is specifically designed. Value of a given variable would depend upon one or more parameters, which influence the value of the given variable.

Model risk usually arises because of the following reasons:

- Incorrect assumptions or assumptions, which have become non-relevant
- Ignoring one or more parameters – usually for simplification or for some practical reasons
- Errors of statistical techniques or insufficient data points
- Incorrect judgment in dealing with outliers, etc.



Climate Risk



Climate-related risks refer to the potential risks that may arise from climate change or from efforts to Mitigate climate change, their related impact, and the economic and financial consequences. It can Impact on the financial sector through two broad channels i.e., physical risks and transition risks.

- **Physical risks**, which arise from the changes in weather and climate that impact the economy. They can be categorized as acute risks (such as floods, heatwaves, landslides etc).
- **Transition risks**, which arise from the process of adjustment towards a low-carbon economy. This can have a significant impact on the economy.

CAIIB BFM Module B Unit 3: Risk Regulations In Banking

Industry

Regulation of Banking Industries - Necessities And Goals

Banking and financial services, all over the world, are regulated usually by the Monetary Authority of the land. This is because banking and financial services are the backbone of an economy. A healthy and strong banking system is a must for any economy to function smoothly and to prosper. As we have seen, banks have risks and risk taking is their business. But if risk-taking is not regulated properly, banks may fail and it would have a disastrous effect on the economy. Therefore, Monetary Authorities across the world regulate functioning of the banks. In India, this function, as we all know, is with Reserve Bank of India, Country's monetary authority.

Regulations have several goals. They are:

- Improving the safety of the banking industry, by imposing capital requirements in line with bank's risks.

Note: Regulatory Authorities impose recognition of the core concept of the capital adequacy principle and of 'risk-based capital', which means banks' capital should be in line with risks. This implies a quantitative assessment of risks as well.

- Levelling the competitive playing field of banks through setting common benchmarks for all players.
- Promoting sound business and supervisory practices.
- Controlling and monitoring Systemic Risk'.
- Protecting interest of depositors as depositors cannot impose a real market discipline on banks.



Systemic Risk

- Systemic risk is the risk of failure of the whole banking system. An Individual bank's failure is one of the major sources of the systemic risk. This happens because of high inter-relations that exist on a ongoing basis between banks through mutual lending and borrowing and other commitments.

Basel Committee on Banking Supervision

Why BCBS?

- On 26th June 1974, a number of banks had released Deutschmarks to Bank Herstatt in Frankfurt in exchange for dollar payments that were to be delivered in New York.
- Due to differences in time zones, there was a lag in dollar payments to counterparty banks during which Bank Herstatt was liquidated by German regulators (Bundesbank), i.e., before the dollar payments could be effected.

Note: The risk of settlement that arises from time-difference came to be known as 'Herstatt Risk'.

The Basel Committee has the following five groups:

- Policy Development Group
- Supervision and Implementation Group
- Basel Consultative Group
- Macro prudential Supervision Group
- Accounting Experts Group

The five Committee groups report directly to the BCBS Chairman and form part of its permanent internal structure. Within each group are working groups - which support specified technical work - and task forces - which undertake specific tasks for a limited time. High-level task forces are also in place to support broader goals outside the Committee groups' primary activities.

BASEL NORM

Basel is a city in Switzerland which is also the headquarters of Bureau of International Settlement (BIS).



The **Bank for International Settlements (BIS)** established on **17 May 1930**, is the world's oldest international financial organisation. There are two representative offices in the **Hong Kong** and in **Mexico City**.

BASEL- I

- In 1988, The Basel Committee on Banking Supervision (BCBS) introduced capital measurement system called Basel capital accord, also called as Basel 1.
- It focused almost entirely on credit risk, It defined capital and structure of risk weights for banks.
- The minimum capital requirement was fixed at **8% of risk-weighted assets (RWA)**.
- India adopted **Basel 1 guidelines in 1999**.
- In India, however banks are required to maintain a minimum Capital-to-risk weighted Asset ratio (CRAR) of **9% on an ongoing basis**.

BASEL- II

In **2004**, **Basel II guidelines** were published by BCBS, which were considered to be the refined and reformed versions of **Basel I accord**.

Three Pillars of Basel II

(i) First Pillar: Minimum capital Requirement

(a) Calculation of minimum capital requirements and constituents of capital

(b) Credit Risk

- Standardized Approach

- Internal Ratings-based Approach

- Securitisation Framework

(c) Market Risk

(d) Operational Risk

(ii) Second Pillar: Supervisory review process

(iii) Third Pillar: Market Discipline.

First Pillar: Minimum capital Requirement

The Capital base of the bank consist of the following three types of capital element. **Tier 1, Tier 2 and Tier 3 capital**. The sum of Tier 1, Tier 2 and Tier 3 element will be eligible for inclusion in the capital base, subject to the following limits.



- (a) Total of Tier 2 (Supplementary) elements will be limited to a maximum of 100% of the Tier 1 element.
- (b) Subordinated term debt will be limited to a maximum of 50% of Tier 1 elements.
- (c) Tier 3 capital will be limited to 250% of a bank's Tier 1 capital that is required to support market risks.
- (d) Where general provisions/general loan –loss reserves include amounts reflecting lower valuations of assets or latent but unidentified losses present in the balance sheet, the amount of such provisions or reserves will be limited to a maximum of 1.25% point.
- (e) Asset revaluation reserves, which take the form of latent gains on unrealized securities, will be subject to a discount of 55%.

Second Pillar: Supervisory review process

The section discusses the key principles of supervisory review, risk management guidance and supervisory transparency and accountability, produced by the committee with respect to banking risks. This includes guidance relating to, among other things, the treatment of interest rate risk in the banking book, credit risk, operational risk etc.

Four key of Principles of Supervisory Review:

The Committee has identified four key principles of supervisory review, which complement those outlined in the extensive supervisory guidance that has been developed by the committee.

- **Principle 1:** Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
- **Principle 2:** Supervisors should review and evaluate Bank's internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.
- **Principle 3:** Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.
- **Principle 4:** Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Third Pillar: Market Discipline

- Disclosure Requirements
- Guiding Principles
- Achieving Appropriate Disclosure



BASEL - III

Basel III or Basel 3 released in December, 2010 is the third in the series of Basel Accords. These accords deal with risk management aspects for the banking sector. So we can say that **Basel III is the global regulatory standard on bank capital adequacy, stress testing and market liquidity risk. (Basel I and Basel II are the earlier versions of the same, and were less stringent).**

The RBI issued Guidelines based on the Basel III reforms on capital regulation on May 2 2012, to the extent applicable to banks operating in India. The Basel III capital regulation has been implemented from April 1, 2013 in India in phase and it will be fully implemented as on March 31, 2019 but Extended.

- In Basel 3, implementation of CCB extended from 31.03.20 to 30.09.20 (further changed to 1.4.2021).
- In Basel 3, implementation of NSFR extended from 1.4.20 to 1.10.20 (further changed to 1.4.2021)

Aims of the Basel III

- Improve the banking sector's ability to absorb ups and downs arising from financial and economic instability
- Improve risk management ability and governance of banking sector
- Strengthen banks' transparency and disclosures

What are the major changes proposed in Basel iii over earlier accords i.e. Basel I and Basel II?

- **Better Capital Quality:** One of the key elements of Basel 3 is the introduction of much stricter definition of capital. Better quality capital means the higher loss-absorbing capacity. This in turn will mean that banks will be stronger, allowing them to better withstand periods of stress.
- **Capital Conservation Buffer:** Another key feature of Basel iii is that now banks will be required to hold a capital conservation buffer of 2.5%. The aim of asking to build conservation buffer is to ensure that banks maintain a cushion of capital that can be used to absorb losses during periods of financial and economic stress.
- **Countercyclical Buffer:** This is also one of the key elements of Basel III. The countercyclical buffer has been introduced with the objective to increase capital requirements in good times and decrease the same in bad times. The buffer will slow banking activity when it overheats and will encourage lending when times are tough i.e. in bad times. The buffer will range from 0% to 2.5%, consisting of common equity or other fully loss-absorbing capital.
- **Minimum Common Equity and Tier 1 Capital Requirements:** The minimum requirement for common equity, the highest form of loss-absorbing capital, has been raised under Basel III from 2% to 4.5% of total risk-weighted assets. The overall Tier 1 capital requirement, consisting of not only common equity but also



other qualifying financial instruments, will also increase from the current minimum of 4% to 6%. Although the minimum total capital requirement will remain at the current 8% level, yet the required total capital will increase to 10.5% when combined with the conservation buffer.

- **Leverage Ratio:** A review of the financial crisis of 2008 has indicted that the value of many assets fell quicker than assumed from historical experience. Thus, now Basel III rules include a leverage ratio to serve as a safety net. A leverage ratio is the relative amount of capital to total assets (not risk-weighted). This aims to put a cap on swelling of leverage in the banking sector on a global basis. 3% leverage ratio of Tier 1 will be tested before a mandatory leverage ratio is introduced in January 2018.
- **Liquidity Ratios:** Under Basel III, a framework for liquidity risk management will be created. A new Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are to be introduced in 2015 and 2018, respectively.
- **Systemically Important Financial Institutions (SIFI):** As part of the macro-prudential framework, systemically important banks will be expected to have loss-absorbing capability beyond the Basel III requirements. Options for implementation include capital surcharges, contingent capital and bail-in-debt.

Comparison of Capital Requirements under Basel II and Basel III

As a percentage of risk weighted assets

		Basel II	Basel III (January 2019)
A= (B+D)	Minimum Total Capital	8.0	8.0
B	Minimum Tier 1 Capital	4.0	6.0
C	Of which: Minimum common equity Tier 1 capital	2.0	4.5
D	Maximum Tier 2 Capital (Within Total capital)	4.0	2.0
E	Capital conservation buffer (CCB)	--	2.5
F=C+E	Minimum Common Equity Tier 1 capital +CCB	2.0	7.0
G=A+E	Minimum Total capital +CCB	8.0	10.5

Minimum Regulatory Capital Prescriptions (as percentage of risk weighted assets)



RBI Prescriptions

		Basel II Current	Basel III (March 31, 2018)	Basel II (January 2019)
A= (B+D)	Minimum Total Capital	9.0	9.0	8.0
B	Minimum Tier 1 Capital	6.0	7.0	6.0
C	Of which: Minimum common equity Tier 1 capital	3.6	5.5	4.5
D	Maximum Tier 2 Capital (Within Total capital)	3.0	2.0	2.0
E	Capital conservation buffer (CCB)	--	2.5	2.5
F=C+E	Minimum Common Equity Tier 1 capital +CCB	3.6	8.0	7.0
G=A+E	Minimum Total capital +CCB	--	11.5	10.5
H	Leverage Ratio (Ratio to total Assets)	--	4.5	3.0

Composition of Regulatory Capital

General

Banks are required to maintain a minimum Pillar 1 Capital to Risk-weighted Assets Ratio (CRAR) of 9% on an on-going basis (other than capital conservation buffer and countercyclical capital buffer etc.). The Reserve Bank will take into account the relevant risk factors and the internal capital adequacy assessments of each bank to ensure that the capital held by a bank is commensurate with the bank's overall risk profile. This would include, among others, the effectiveness of the bank's risk management systems in identifying, assessing/measuring, monitoring and managing various risks including interest rate risk in the banking book, liquidity risk,



concentration risk and residual risk. Accordingly, the Reserve Bank will consider prescribing a higher level of minimum capital ratio for each bank under the Pillar 2 framework on the basis of their respective risk profiles and their risk management systems. Further, in terms of the Pillar 2 requirements, banks are expected to operate at a level well above the minimum requirement. A bank should compute Basel III capital ratios in the following manner:

Common Equity Tier 1 capital ratio	Common Equity Tier 1 Capital
	Credit Risk RWA* + Market Risk RWA + Operational Risk RWA
Tier 1 capital ratio (CET1 + AT1)	Eligible Equity Tier 1 Capital
	Credit Risk RWA* + Market Risk RWA + Operational Risk RWA
Total Capital (CRAR)#	Eligible Total Capital
	Credit Risk RWA+ Market Risk RWA + Operational Risk RWA

* RWA = Risk weighted Assets;

Capital to Risk Weighted Asset Ratio

Elements of Regulatory Capital and the Criteria for their Inclusion in the Definition of Regulatory Capital

Components of Capital

Total regulatory capital will consist of the sum of the following categories:

- (i) Tier 1 Capital (going-concern capital)
 - (a) Common Equity Tier 1
 - (b) Additional Tier 1



(ii) Tier 2 Capital (gone-concern capital)

From regulatory capital perspective, going-concern capital is the capital which can absorb losses without triggering bankruptcy of the bank. Gone-concern capital is the capital which will absorb losses only in a situation of liquidation of the bank.

Limits and Minima

- As a matter of prudence, it has been decided that scheduled commercial banks (excluding Local Area Banks and Regional Rural Banks) operating in India shall maintain a minimum total capital (MTC) of 9% of total risk weighted assets (RWAs) i.e. capital to risk weighted assets (CRAR). This will be further divided into different components as described hereunder.
- Common Equity Tier 1 (CET1) capital must be at least 5.5% of risk-weighted assets (RWAS) i.e. for credit risk + market risk + operational risk on an ongoing basis.
- Tier 1 capital must be at least 7% of RWAs on an ongoing basis. Thus, within the minimum Tier 1 capital, Additional Tier 1 capital can be admitted maximum at 1.5% of RWAS.
- Total Capital (Tier 1 Capital plus Tier 2 Capital) must be at least 9% of RWAs on an ongoing basis. Thus, within the minimum CRAR of 9%, Tier 2 capital can be admitted maximum up to 2%.
- If a bank has complied with the minimum Common Equity Tier 1 and Tier 1 capital ratios, then the excess Additional Tier 1 capital can be admitted for compliance with the minimum CRAR of 9% of RWAS.
- In addition to the minimum Common Equity Tier 1 capital of 5.5% of RWAs, banks are also required to maintain a capital conservation buffer (CCB) of 2.5% of RWAs in the form of Common Equity Tier 1 capital. Details of operational aspects of CCB are given in RBI Circular.

Capital Charge for Credit Risk

Under the Standardised Approach, the rating assigned by the eligible external credit rating agencies will largely support the measure of credit risk. The Reserve Bank has identified the external credit rating agencies that meet the eligibility criteria specified under the revised Framework. Banks may rely upon the ratings assigned by



the external credit rating agencies chosen by the Reserve Bank for assigning risk weights for capital adequacy purposes as per the mapping furnished in the RBI Guidelines.

The Circular issued by the Reserve Bank of India has laid down detailed guidelines on the capital adequacy requirements and the risk weights to be applied in case of the following claims:

- Claims on Domestic Sovereigns
- Claims on Foreign Sovereigns
- Claims on Public Sector Entities (PSES)
- Claims on Multilateral Development Banks, Bank for International Settlements and the International Monetary Fund
- Claims on Banks (Exposure to capital instruments)
- Claims on Primary Dealers
- Claims on Corporates, Asset Finance Companies and Non-Banking Finance Companies- Infrastructure Finance Companies
- Claims included in the Regulatory Retail Portfolios
- Claims secured by Residential Property
- Claims Classified as Commercial Real Estate Exposure
- Non-Performing Assets (NPAs)
- Specified Categories Venture Capital Funds
- Other Assets like loans and advances to bank's own staff
- Off-Balance Sheet Items
- Securitisation Exposures
- Capital Adequacy Requirement for Credit Default Swap (CDS) Positions in the Banking Book

Eligible Credit Rating Agencies

Reserve Bank has undertaken the detailed process of identifying the eligible credit rating agencies, whose ratings may be used by banks for assigning risk weights for credit risk. In line with the provisions of the Revised Framework, where the facility provided by the bank possesses rating assigned by an eligible credit rating agency, the risk weight of the claim will be based on this rating

In accordance with the principles laid down in the Revised Framework, the Reserve Bank of India has decided that banks may use the ratings of the following domestic credit rating agencies for the purposes of risk weighting their claims falling under Corporate exposures for capital adequacy purposes:



- Brickwork Ratings India Pvt. Limited (Brickwork);
- Credit Analysis and Research Limited;
- CRISIL Limited;
- ICRA Limited;
- India Ratings and Research Private Limited (India Ratings); and
- SMERA Ratings Ltd. (SMERA)
- INFORMERICS Valuation and Rating Pvt. Ltd (from June, 2017)

The Reserve Bank of India has decided that banks may use the ratings of the following international credit rating agencies (arranged in alphabetical order) for the purposes of risk weighting their claims for capital adequacy purposes where specified:

- Fitch;
- Moody's; and
- Standard & Poor's

Internal Rating Based Approach

One of the most innovative aspects of the New Accord is the IRB approach to measurement of capital requirements for credit risk. The IRB Approach offers the following two options: Foundation IRB Approach (FIRB) and Advanced IRB Approach (AIRB) version. The IRB approach differs substantially from the standardised approach to the extent that banks' internal assessments of key risk parameters serve as primary inputs to capital calculation. Since the approach is based on banks' internal assessments, the potential for more risk-sensitive capital requirements is substantial. *The salient features of IRB Approach are as under:*

- The IRB Approach computes the capital requirements of each exposure directly before computing the risk-weighted assets.
- **Capital charge computation is a function of the following parameters:**

(i) Probability of Default (PD)

(ii) Loss Given the Default (LGD)

(iii) Exposure at Default (EAD)

(iv) Maturity (M)

The risk-weighted assets are derived from the capital charge computation.



- Probability of Default (PD), which measures the likelihood that the borrower will default over a time given horizon.
- Loss Given Default (LGD), which measures the proportion of the exposure that will be lost if a default occurs.
- Exposure At Default (EAD), which for loan commitment measures the amount of the facility that is likely to be drawn in the event of a default.
- Maturity (M), which measures the remaining economic maturity of the exposure.

Table	Differences between Foundation and Advanced IRB Approaches	
Parameter	Foundation IRB	Advanced IRB
PD	Bank	Bank
LGD	Supervisor	Bank
EAD	Supervisor	Bank
M	Bank or Supervisor	Bank
Risk Weight	Function provided by the committee	Function provided by the committee
Data Requirement	Historical data to estimate PD [5 years]	Historical loss data to estimate LGD (7 years) and historical exposure data to estimate EAD (7 years)] plus that for PD estimation

Credit Risk Mitigation

General Principles

Banks use a number of techniques to mitigate the credit risks to which they are exposed. For example, exposures may be collateralised in whole or in part by cash or securities, deposits from the same counterparty, guarantee of a third party, etc.



The general principles applicable to use of credit risk mitigation techniques are as under:

- No transaction in which Credit Risk Mitigation (CRM) techniques are used should receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.
- The effects of CRM will not be double counted. Therefore, no additional supervisory recognition of CRM for regulatory capital purposes will be granted on claims for which an issue-specific rating is used that already reflects that CRM.
- Principal-only ratings will not be allowed within the CRM framework.
- While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase other risks (residual risks). Residual risks include legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust procedures and processes to control these risks, including strategy, consideration of the underlying credit; valuation; policies

Legal Certainty

- In order for banks to obtain capital relief for any use of CRM techniques, the following minimum standards for legal documentation must be met.
- All documentation used in collateralised transactions and guarantees must be binding on all parties and legally enforceable in all relevant jurisdictions. Banks must have conducted sufficient legal review, which should be well documented, to verify this requirement.
- Such verification should have a well-founded legal basis for reaching the conclusion about the binding nature and enforceability of the documents. Banks should also undertake such further review as necessary to ensure continuing enforceability.

Credit Risk Mitigation Techniques – Collateralised Transactions

A Collateralised Transaction is one in which:

- Banks have a credit exposure and that credit exposure is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the



counterparty. Here, “counterparty” is used to denote a party to whom a bank has an on- or off-balance sheet credit exposure.

- Banks have a specific lien on the collateral and the requirements of legal certainty are met.

Capital Charge for Market Risk

Market risk is defined as the risk of losses in on-balance sheet and off-balance sheet positions arising from movements in market prices.

The market risk positions subject to capital charge requirement are:

- The risks pertaining to interest rate related instruments and equities in the trading book; and
- Foreign exchange risk (including open position in precious metals) throughout the bank (both banking and trading books).

Scope and Coverage of Capital Charge for Market Risks

These guidelines seek to address the issues involved in computing capital charges for interest rate related instruments in the trading book, equities in the trading book and foreign exchange risk (including gold and other precious metals) in both trading and banking books. *Trading book for the purpose of capital adequacy will include:*

- Securities included under the Held for Trading category
- Securities included under the Available for Sale category
- Open gold position limits
- Open foreign exchange position limits
- Trading positions in derivatives, and
- Derivatives entered into for hedging trading book exposures

Measurement of Capital Charge for Interest Rate Risk

- The capital charge for interest rate related instruments would apply to current market value of these items in bank’s trading book. Since banks are required to maintain capital for market risks on an ongoing basis, they are required to mark to market their trading positions on a daily basis.



- The current market value will be determined as per extant RBI guidelines on valuation of investments.

The minimum capital requirement is expressed in terms of two separately calculated charges,

- **“Specific risk”** charge for each security, which is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer, both for short (short position is not allowed in India except in derivatives and Central Government Securities) and long positions, and
- **“General market risk”** charge towards interest rate risk in the portfolio, where long and short positions (which is not allowed in India except in derivatives and Central Government Securities) in different securities or instruments can be offset.

General Market Risk

The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates.

The capital charge is the sum of four components:

- The net short (short position is not allowed in India except in derivatives and Central Government Securities) or long position in the whole trading book;
- A small proportion of the matched positions in each time-band (the “vertical disallowance”);
- A larger proportion of the matched positions across different time-bands (the “horizontal disallowance”); and
- A net charge for positions in options, where appropriate.

Capital Charge for Operational Risk

Operational Risk

- **Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.** This definition includes legal risk, but excludes strategic and reputational risk.



- Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

The Measurement Methodologies

The New Capital Adequacy Framework (NCAF) outlines three methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity:

- The Basic Indicator Approach (BIA);
- The Standardised Approach (TSA); and
- Advanced Measurement Approaches (AMA).

The Basic Indicator Approach

- **Under the Basic Indicator Approach, banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted as alpha) of positive annual gross income.** Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. If negative gross income distorts a bank's
- Pillar 1 capital charge, Reserve Bank will consider appropriate supervisory action under
- Pillar 2. The charge may be expressed as follows:

$$KBIA = [\sum (GI_{1.....n} \times \alpha)]/n$$

Where:

KBIA = the capital charge under the Basic Indicator Approach

GI = annual gross income, where positive, over the previous three years

n = number of the previous three years for which gross income is positive

α = 15 per cent, which is set by the BCBS, relating the industry wide level of required capital to the industry wide level of the indicator.

Gross income is defined as "Net interest income" plus "net non-interest income".

It is intended that this measure should:



- be gross of any provisions (e.g. for unpaid interest) and write-offs made during the year,
- be gross of operating expenses, including fees paid to outsourcing service providers, in addition to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income;
- exclude reversal during the year in respect of provisions and write-offs made during the previous year
- exclude income recognised from the disposal of items of movable and immovable property;
- exclude realised profits/losses from the sale of securities in the "held to maturity" category;
- exclude income from legal settlements in favour of the bank;
- exclude other extraordinary or irregular items of income and expenditure; and
- exclude income derived from insurance activities (i.e. income derived by writing insurance policies) and insurance claims in favour of the bank.

Features of a Sound Risk Management System

A sound risk management system should have the following key features:

- Active board and senior management oversight;
- Appropriate policies, procedures and limits;
- Comprehensive and timely identification, measurement, mitigation, controlling, monitoring and reporting of risks;
- Appropriate management information systems (MIS) at the business and firm-wide level; and
- Comprehensive internal controls.

Guidelines for the SREP of the RBI and the ICAAP of Banks

The Basel capital adequacy framework rests on the following three mutually – reinforcing pillars:

- **Pillar 1: Minimum Capital Requirements** – which prescribes a risk-sensitive calculation of capital requirements that, for the first time, explicitly includes operational risk in addition to market and credit risk.



- **Pillar 2: Supervisory Review Process (SRP)** – which envisages the establishment of suitable risk management systems in banks and their review by the supervisory authority.
- **Pillar 3: Market Discipline** – which seeks to achieve increased transparency through expanded disclosure requirements for banks.

The Basel Committee also lays down the following four key principles in regard to the SRP envisaged under Pillar 2:

- **Principle 1:** Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
- **Principle 2:** Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with the regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.
- **Principle 3:** Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.
- **Principle 4:** Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Pillar 3 - Market Discipline

The purpose of Market discipline is to complement the minimum capital requirements (detailed under pillar 1) and the supervisory review process (detailed under Pillar 2). The aim is to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes and hence, the capital adequacy of the institution.

In principle, banks' disclosures should be consistent with how senior management and the Board of Directors assess and manage the risks of the bank. Under Pillar 1, banks



use specified approaches/ methodologies for measuring the various risks they face and the resulting capital requirements. It is believed that providing disclosures that are based on a common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and comprehensive disclosure framework that enhances comparability.

Scope and Frequency of Disclosures

Pillar 3 applies at the top consolidated level of the banking group to which the Capital Adequacy Framework applies. Disclosures related to individual banks within the groups would not generally be required to be made by the parent bank. An exception to this arises in the disclosure of capital ratios by the top consolidated entity where an analysis of significant bank subsidiaries within the group is appropriate, in order to recognise the need for these subsidiaries to comply with the Framework and other applicable limitations on the transfer of funds or capital within the group. Pillar 3 disclosures will be required to be made by the individual banks on a stand-alone basis when they are not the top consolidated entity in the banking group.

Banks are required to make Pillar 3 disclosures as per RBI Guidelines at least on a half yearly basis, irrespective of whether financial statements are audited, with the exception of following disclosures:

- Table DF-2: Capital Adequacy;
- Table DF-3: Credit Risk: General Disclosures for All Banks; and
- Table DF-4: Credit Risk: Disclosures for Portfolios Subject to the Standardised Approach.

Leverage Ratio

Definition, Minimum Requirement and Scope of Application of the Leverage Ratio

Definition and minimum requirement: exposure

The Basel III leverage ratio is defined as the capital measure (the numerator) divided by the measure (the denominator), with this ratio expressed as a percentage

$$\text{Leverage ratio} = \text{Capital Measure} / \text{Exposure Measure}$$

Regulatory Capital Requirement for Indian Banks under Basel III



Elements of Common Equity Tier 1 Capital:

Indian Banks

Elements of Common Equity component of Tier 1 capital will comprise the following:

- Common shares (paid-up equity capital) issued by the bank which meet the criteria for classification as common shares for regulatory purposes;
- Stock surplus (share premium) resulting from the issue of common shares;
- Statutory reserves;
- Capital reserves representing surplus arising out of sale proceeds of assets;
- Other disclosed free reserves, if any;
- Balance in Profit & Loss Account at the end of the previous financial year;
- Banks may reckon the profits in current financial year for CRAR calculation on a quarterly basis provided the incremental provisions made for non-performing assets at the end of any of the four quarters of the previous financial year have not deviated more than 25% from the average of the four quarters. The amount which can be reckoned would be arrived at by using the following formula:

$$E_{Pt} = \{N_{Pt} - 0.25 * D * t\}$$

Where;

E_{Pt} = Eligible profit up to the quarter 't' of the current financial year; t varies from 1 to 4

N_{Pt} = Net profit up to the quarter 't'

D = average annual dividend paid during last three years

- Revaluation Reserves at a discount of 55%;
- While calculating capital adequacy at the consolidated level, common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) which meet the laid down criteria; and
- Less: Regulatory adjustments/deductions applied in the calculation of Common Equity Tier 1 capital (i.e. to be deducted from the sum of items (i) to (viii)].

Foreign Banks' Branches



Elements of Common Equity Tier 1 capital will remain the same and consist of the following:

- Interest-free funds from Head Office kept in a separate account in Indian books specifically for the purpose of meeting the capital adequacy norms;
- Statutory reserves kept in Indian books;
- Remittable surplus retained in Indian books which is not repatriable so long as the bank functions in India;
- Interest-free funds remitted from abroad for the purpose of acquisition of property and held in a separate account in Indian books provided they are non-repatriable and have the ability to absorb losses regardless of their source;
- Capital reserve representing surplus arising out of sale of assets in India held in a separate account and which is not eligible for repatriation so long as the bank functions in India, and
- Less: Regulatory adjustments/deductions applied in the calculation of Common Equity Tier 1 capital [i.e. to be deducted from the sum of items (i) to (v)].

Definitions and General Terminology

Counterparty Credit Risk (CCR) is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transaction or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

Securities Financing Transactions (SFTs) are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, collateralised borrowing and lending (CBLO) and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.



Hedging Set is a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure amount or EAD under the CCR standardised method.

Current Exposure is the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.

Credit Valuation Adjustment is an adjustment to the mid-market valuation of the portfolio of trades with a counterparty. This adjustment reflects the market value of the credit risk due to any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the bank and the counterparty.

One-Sided Credit Valuation Adjustment is a credit valuation adjustment that reflects the market value of the credit risk of the counterparty to the firm, but does not reflect the market value of the credit risk of the bank to the counterparty.

A central counterparty (CCP) is a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts.

A qualifying central counterparty (QCCP) is an entity that is licensed to operate as a CCP (including a license granted by way of confirming an exemption), and is permitted by the appropriate regulator overseer to operate as such with respect to the products offered.

A Clearing member is a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP, regardless of whether it enters into trades with a CCP for its own hedging, investment or speculative purposes or whether it also enters into trades as a financial intermediary between the CCP and other market participants.

A client is a party to a transaction with a CCP through either a clearing member acting as a financial intermediary, or a clearing member guaranteeing the performance of the client to the CCP.



Initial margin means a clearing member's or client's funded collateral posted to the CCP to mitigate the potential future exposure of the CCP to the clearing member arising from the possible future change in the value of their transactions.

Variation margin means a clearing member's or client's funded collateral posted on a daily or intraday basis to a CCP based upon price movements of their transactions.

Trade exposures include the current and potential future exposure of a clearing member or a client to a CCP arising from OTC derivatives, exchange traded derivatives transactions or SFTs, as well as initial margin.

Default funds, also known as clearing deposits or guarantee fund contributions (or any other names), are clearing members' funded or unfunded contributions towards, or underwriting of, a CCP's mutualised loss sharing arrangements. The description given by a CCP to its mutualised loss sharing arrangements is not determinative of their status as a default fund; rather, the substance of such arrangements will govern their status.

Offsetting transaction means the transaction leg between the clearing member and the CCP when the clearing member acts on behalf of a client (e.g. when a clearing member clears or novates a client's trade).

CAIIB Paper 2 (BFM) Module B Unit 4: Market Risk

Market Risk In Banks

Banks also have several activities and undertake transactions that result in market exposure. They are not immune to these risks and have to face them too. All such transactions are reflected in the trading book.

A trading book consists of a bank's proprietary positions in financial instruments covering-

- Debt Securities
- Equity
- Foreign Exchange
- Commodities (not permitted in our country presently)
- Derivatives held for Trading



The trading book also includes positions in financial instruments arising from matched principal brokering and market making, or positions taken in order to hedge other elements of the trading book.

The proprietary positions are held with trading intent and with the intention of benefiting in the short-term, from actual and/or expected differences between their buying and selling prices or hedging other elements in the trading book.

A bank's trading book exposure has the following risks, which arise due to adverse changes in the market variables such as interest rates, currency exchange rate, Commodity prices, market liquidity, etc., and their volatilities impact the bank's earnings and capital adversely.

1. Market Risk

2. Liquidity Risk

- Asset Liquidity Risk
- Market Liquidity Risk

3. Credit and Counterparty risks

Note: The market liquidity risk is different from funding the liquidity risk that arises due to asset-liability mismatch and is a subject matter of Asset Liability management.

Market Risk

- **Market risk is the risk of adverse deviations of the mark-to-market value of the trading portfolio, due to market movements, during the period required to liquidate the transactions.**
- **The period of liquidation is critical to assess such adverse deviations. If the period of liquidation of the position gets longer, the possibilities of larger adverse deviations from the current market value also increase.**

Trading Liquidity Risk

Trading liquidity is the ability to freely transact in markets at reasonable prices.

Trading liquidity is ability to liquidate positions without --

- Affecting market prices
- Attracting the attention of other market participants.



Trading liquidity allows one to transact without compromising on counter-party quality. Liquidation involves asset and market liquidity risks. Price volatility is not the same in high-liquidity and poor-liquidity situations.

The liquidity issue becomes critical in emerging markets. Prices in emerging markets often diverge considerably from a theoretical 'fair value'. Liquidation risk arise from lack of trading liquidity and results in

- Adverse change in market prices
- Inability to liquidate position at a fair market price
- Large price changes caused by liquidation of position
- Inability to liquidate position at any price

Credit and Counterparty Risks

- **Markets value the credit risk of issuers and borrowers and it reflects in prices. Credit risk of traded debts, such as bonds and debentures and commercial papers, etc., is indicated by Credit Rating given by rating agencies.**
- Credit rating indicates the risk level associated with the instruments and is factored into as add-ons to the risk-free rate of the corresponding maturity. The lower the risk level, the lower is the spread over risk-free rate.

Market Risk Management Framework

Market risk management involves finding answer to four key questions.

- What are the risks?
- What is the quantum? How much could the price change? What would be the effect on profit and loss?
- How can we monitor and control price risk?
- Can we reduce the risk? And, if so, then how?

Management processes for market risk management are designed essentially to answer these questions. Accordingly, management processes are sub-divided into the following four parts:

- Risk Identification
- Risk Measurement
- Risk Monitoring and Control
- Risk Mitigation



An effective market risk management framework in a bank comprises of risk identification, setting up of limits and triggers, risk monitoring, models of analysis that value positions or measure market risk, risk reporting, etc.

Financial instrument take their price from the market and that depends upon the interaction of market variables. Hence, market risk management processes do not have a risk pricing process.

But, management of market risk needs an organisation structure in place that can carry out the functions required for the purpose.

Organisation Structure

Management of market risk is a major concern of the top management of banks. Successful implementation of risk management process emanates from the top management in the bank. The main challenge centres on facilitating implementation of risk and business policies simultaneously in a consistent manner. Modern best practices consist of setting risk limits based on economic measures of risk while ensuring the best risk adjusted return keeping in view the capital that has been invested in the business. It is a question of taking a balanced view on risks and returns and within the constraints of available capital. **Usually, Market Risk Management organisation would consist:**

- The Board of Directors
- The Risk Management Committee
- The Asset-Liability Management Committee (ALCO)
- The ALM Support Group/Market Risk Group
- The Middle Office

The Risk Management Committee is a Board level Sub-Committee. The responsibilities of Risk Management Committee with regard to market risk management aspects include the following:

- Setting guidelines for market risk management and reporting
- Ensuring that market risk management processes conform to the policy
- Setting up prudential limits and their periodical review
- Ensuring robustness of measurement of risk models
- Ensuring proper manning for the processes



The Asset-Liability Management Committee (ALCO) is responsible for implementation of risk and business policies simultaneously in a consistent manner and decides on the business strategy to achieve these objectives. **Its role encompasses the following:**

- Product pricing for deposits and advances
- Maturity profile and mix of incremental assets and liabilities
- Articulating interest rate view of the bank
- Funding policy
- Transfer pricing
- Balance sheet management It set

Risk Identification

All products and transactions should be analysed for risks associated with them. While, various risks associated with a standardised product stand analyzed, the risks in case of a non-standard products need to be analysed. Therefore, the approach to deal in standard and non-standard products differs. We have seen under the general approach to risk management that the guidance for risk taking at the transaction level comes from the corporate level. It applies to the management of market risk too.

- Usually all standard products would have 'Product Programme' for each of them. All Risk- Taking Units operate within an approved Product Programme'. Product programme defines procedures, limits and controls for all aspects of the product. The product programme also specifies market risk measurement at an individual product level and at aggregate portfolio level.
- New products or non-standard products may operate under a 'Product Transaction Memorandum' on a temporary basis while a full Market Risk Product programme is being prepared.

Risk Measurement

Market risk management framework is heavily dependent upon the quantitative measures of risk. The market risk measures seek to capture variations in market value arising out of uncertainties associated with various risk elements. These provide an objective measure of market risk in a transaction or of a portfolio. Market risk measures are based on -



- Sensitivity
- Downside Potential

Sensitivity

- **Sensitivity, as had been stated deviation of market price due to unit movement of a single market parameter. Supply-demand position, interest rate, market liquidity, inflation, exchange rate, stock prices, etc.,** are the market parameters, which drive market values.
- For example, change in interest rate would drive the market value of bonds and forward foreign exchange held in a portfolio. If liquidity in the market increases, it may result in increased demand which in turn may increase the market price.

Basis Point Value (BPV)

- This is the change in value due to 1 basis point (0.01%) change in the market yield. This is used as a measure of risk. The higher the BPV of a bond, higher is the risk associated with the bond. Computation of BPV is quite simple.

For example, a 5 year 6% semi-annual bond @ market yield of 8%, has a price of Rs. 92, which rises to Rs. 92.10 at a yield of 7.95%. So, for one BP fall in yield, market price changes by Rs. 0.02 or gains by Rs. 2,000 per Rs. 1 crore face value. BPV of the bond is, therefore, Rs. 2,000. per crore face value.

This also helps us to quickly calculate profit or loss for a given change of yield. If the yield on a bond with BPV of 2,000 declines by 8 BPs, then that would result in a profit of $8 \times 2000 = \text{Rs. } 16,000$ per crore of face value. If one is holding Rs. 10,00,000 face value of this bond, he makes a profit of Rs. 1,600.

BPV changes with the remaining maturity. Suppose the bond described above has 5 years to mature and the present BPV is 2000, the BPV will decline with time and on the day of maturity it will be zero.

Duration or Modified duration is Macaulay's duration discounted by 1 period yield to maturity,

The longer the duration of a security, the greater will be the price sensitivity to yield changes and the higher would be the risk associated with the bond. Bond price changes can be estimated with the help of modified duration by using the following relationship.



Approx % change in price = — modified duration X yield change

Downside Potential

- **Risk materializes only when earnings deviate adversely. Downside potential captures the possible losses only and ignores the profit potential.** Downside risk is the most comprehensive measure of risk as integrates sensitivity and volatility with the adverse effect of uncertainty.
- **This is the measure that is most relied upon by banking and financial service industry as also the regulator.**

Yield Vs Price Volatility

- **Yield volatility is the degree of variance in yield. This is largely unaffected by time and duration. The volatility rises as yields fall.**
- Price volatility is degree of variance in price. This is largely unaffected by yield and substantially affected by time and duration.

$$\text{Price Volatility} = (\text{Yield volatility BPV} \times \text{Yield}) / \text{Price}$$

There are three main approaches to calculating value-at-risk:

- The correlation method, also known as the variance/covariance matrix method
- Historical simulation
- Monte Carlo simulation

Why VaR is Useful?

- Good tool for all banks, financial institutions, multinationals, fund managers for protection of customers, shareholders, employees and overall franchise of the business.
- Translates portfolio exposures into potential impact on Profit and Loss.
- Aggregates and reports multi-product, multi-market exposures into one number.
- Meets external risk management disclosure and expectations.
- A vital component of current best practices in risk measurement.
- Embraced by practitioners, regulators and academicians.
- Valuable as a probabilistic measure of potential losses.

Limitation of VaR



VaR is not worst-case scenario. It does not measure losses under any particular market conditions. VaR by itself - is not sufficient for risk measurement. Measures to get over the limitation include back testing and model calibration and scenario analysis and stress testing.

Role of VaR in Control and Monitoring

- Estimating Volatility
- Back Testing
- Stress Testing

Risk Monitoring And Control

- Risk monitoring and control calls for implementation of risk and business policies simultaneously. It consists of setting the market risk limits or controlling the market risk, based on the economic measures of risk while ensuring the best risk adjusted return.
- Controlling market risk means keeping the variations of the value of a given portfolio within the given boundary values through actions on limits, which are upper bounds imposed on risks.

This is achieved through the following:

- Policy guidelines limiting roles and authority
- Limit structure and approval process
- System and procedures to unbundle products and transactions to capture all risks
- Guidelines on portfolio size and mix
- System for estimating portfolio risk under normal and stressed situations
- Defined policy for mark-to-market
- Limit monitoring and reporting
- Performance Measurement and Resource Allocation

Limits and Triggers

Approved market risk limits for factor sensitivities and Value at Risk are duly set by the designated authority (usually by the Risk Policy Committee). The approval is based on



the unit's capacity and capability to perform within those limits, effectiveness of controls and trading revenues.

- Sensitivity and Value at Risk limits for trading portfolios and accrual portfolios are measured daily. Where market risk is not measured daily, Risk Taking Units must have procedures that monitor activity to ensure that they remain within approved limits at all times.
- Approved management triggers or stop-loss limits for all mark to market risk taking activities.
- Appropriate market risk limits for basis risk for the products, wherever applicable, in the Market Risk Product Programme.

Risk Monitoring

- A monitoring process to ensure that all transactions are executed and revalued at the prevailing market rates. The rates used at inception or for periodic marking to market for risk management or accounting purposes must be independently verified.
- Financial Models used for revaluations for income recognition purposes or to measure or monitor Price Risk must be independently tested and certified.
- Stress tests must be performed preferably quarterly with predetermined changes in the underlying assumptions of the model/market conditions.

Models of Analysis

- Appropriate and duly approved (usually by Risk Policy Committee) model control and certification policy.
- Fully documented financial models.
- Duly validated by the designated person, to ensure that the algorithm employed is appropriate and accurate. At least once in a year, the model should be validated by a98 reputed external agency also.
- No unauthorized or unintended changes should be made in models.
- The models should also be subject to model assumption review on a periodic basis.

Risk Reporting



Risk report should enhance risk communication across different levels of the bank, from the trading desk to the CEO. In order of importance, senior management reports should be -

- Regular and in time
- Reasonably accurate
- Including highlights of portfolio risk concentrations & exceptional events
- Containing written commentary
- Concise.

Managing Trading Liquidity

Risk of trading liquidity is managed by avoiding –

- Large market share in any given type of assets
- Infrequently traded instruments
- Instruments with unusual tenors
- One-sided liquidity in the market

Risk Terminology in Risk Measurement

Say Mr. Abhinav takes a position in stock 'A' and wants to explain to his 'Boss' about the market position. He can explain the position in three possible ways:

- He tells his Boss that he purchased 1,000 shares of stock 'A' at Rs. 600 per share
- He tells his Boss that he has taken a Rs. 600,000 position in stock 'A'
- He tells his Boss that he invested in stock "A". He explains that if price changes by 1%, he would have an impact of Rs. 6,000. But since the price is expected to fluctuate 3% daily (daily volatility - figure estimated from past data), he estimates the daily potential loss to be Rs. 41,868

Mr. Abhinav's position analysis using risk terminology will be:

- Market factor - Stock price
- Market Factor Sensitivity - Rs. 6,000 (1% of total position)
- Volatility (Daily) - 3%
- Defeasance period - 1 day (i.e., to sell the stock)
- Defeasance factor - at 3% volatility it is 3×2.326 (@ 99% Confidence level)
- Value at Risk (VaR) - Rs. 41,868 - This is also the potential loss amount under normal market conditions.

Risk Mitigation



Market risk arises due to volatility of financial instruments. The volatility of financial instruments is instrumental for both profits and risk. Risk mitigation in market risk, i.e., reduction in market risk is achieved by adopting strategies that eliminate or reduce the volatility of the portfolio. However, there are couple of issues that are also associated with risk mitigation measures

- Risk mitigation, measures aim to reduce downside variability in net cash flow but it also reduces the upside potential or profit potential simultaneously,
- In addition risk mitigation strategies, which involve counterparty, will always be associated with counterparty risk. Of course, where counterparty is an established 'Exchange' or a central counterparty, counterparty risk gets reduced very substantially. In OTC deals, counterparty risk would depend upon the risk level associated with party to the contract.

CAIIB Paper 2 (BFM) Module B Unit 5: Credit Risk

Credit Risk Management Framework

As in the case of market risk management, credit risk management also involves finding answer to four key questions.

- What are the risks?
- Which, when and how much risk to accept that results in improving bottom-line?
- How can we monitor and control credit risk?
- Can we reduce the risk? And, if so, then how?

Management processes are designed essentially to answer these questions. Accordingly, credit risk management processes are sub-divided into following four parts.

- Credit Risk Identification
- Credit Risk Measurement
- Credit Risk Monitoring and Control
- Credit Risk Mitigation Management of credit risk needs an organisation structure in place that can carry out the functions required for the purpose.

Organisation Structure

Organisation for credit risk management is created with the objective of achieving compatibility in risk and business policies and to ensure their simultaneous implementation in a consistent manner. It involves setting risk limits based on the objective measures of risk and simultaneously ensuring optimum risk adjusted return



keeping in view the capital constraints. It is a question of bank's policy in balancing risks, returns and capital. Organisation for credit risk management should be able to achieve it. Usually, Credit Risk Management organisation would consist of:

- The Board of Directors
- The Risk Management Committee
- Credit Policy Committee (CPC)
- Credit Risk Management Department

The Board of Directors has the overall responsibility for management of risks. The Board articulates credit risk management policies, procedures, aggregate risk limits, review mechanisms and reporting and auditing systems. The Board decides the level of credit risk for the bank as a whole, keeping in view its profit objective and capital planning.

The Risk Management Committee is a Board level Sub-Committee. The responsibilities of Management Committee with regard to credit risk management aspects include the following:

- Setting guidelines for credit risk management and reporting
- Ensuring that credit risk management processes conform to the policy
- Setting up prudential limits and their periodical review
- Ensuring robustness of measurement of risk models
- Ensuring proper manning for the processes Management

Credit Policy Committee (CPC), also called Credit Control Committee/Credit Risk Management Committee (CRMC) deals with issues relating to credit policy and procedures and to analyse, manage and control credit risk on a bank wide basis. The Committee formulates policies on standards for presentation of credit proposals, financial covenants, rating standards and benchmarks, delegation of credit approving powers, prudential limits on large credit exposures, asset concentrations, standards for loan collateral, portfolio management, loan review mechanism, risk concentrations, risk monitoring and evaluation pricing of loans, provisioning, regulatory/legal compliance, etc.

Credit Risk Management Department (CRMD), which is independent of the Credit Administration Department, enforces and monitors compliance of the risk parameters and prudential limits set by the CPC/CRMC. The CRMD also lays down risk assessment systems, monitors quality of loan portfolio identifies problems and corrects deficiencies, develops MIS and undertakes loan review/audit. Department undertakes portfolio evaluations and conducts comprehensive studies on the environment to test the resilience of the loan portfolio.

Risk Identification

Credit risk arises from potential changes in the credit quality of a borrower.



It has two components:

- Default risk and
- Credit spread risk.

Default Risk

- Default risk is driven by the potential failure of a borrower to make promised payments, either partly or wholly. In the event of default, a fraction of the obligations will normally be paid. This is known as recovery rate

Credit Spread Risk or Downgrade Risk

- If a borrower does not default, there is still risk due to worsening in credit quality. This results in the possible widening of the credit-spread. This is credit-spread risk. Usually this is reflected through rating downgrade. It is normally firm-specific.

Default risk and downgrade risk are transaction level risks. Risks associated with the credit portfolio as a whole are termed portfolio risks. Portfolio risk has two components

- Systematic or Intrinsic Risk
- Risk Concentration Risk

Systematic or Intrinsic Risk

- As we have seen in Para 7.47, **portfolio risk is reduced due to diversification. If a portfolio is fully diversified, i.e. diversified across geographies, industries, borrowers, markets, etc.,** equitably, then the portfolio risk is reduced to a minimum level. This minimum level corresponds to the risks in the economy which it is operating. This is systematic or intrinsic risk.

Concentration Risk

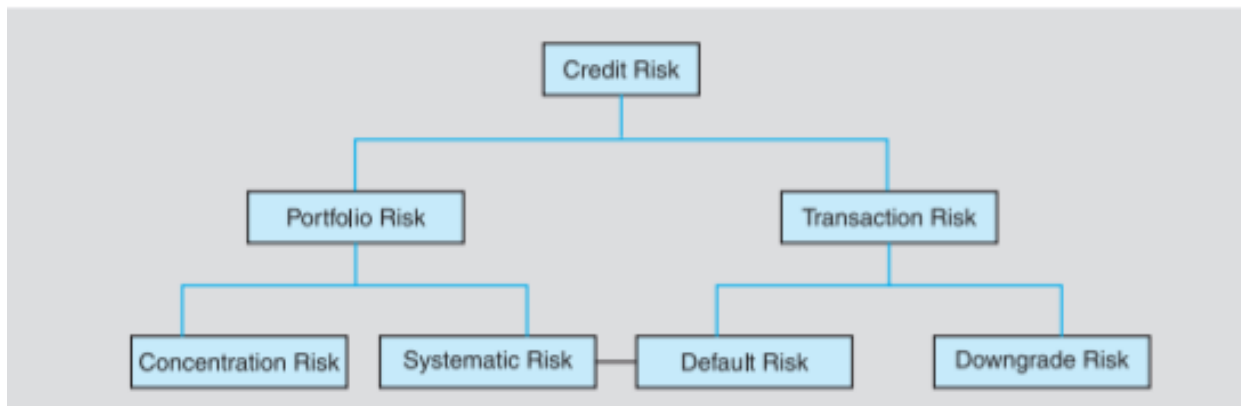
If the portfolio is not diversified that is to say that it has higher weight in respect of a borrower or geography or industry, etc., the portfolio gets concentration risk.

A portfolio is open to the systematic risk i.e., the risks associated with the economy. If economy as a whole does not perform well, the portfolio performance will be affected. That is why when an economy stagnates or faces negative or reduced growth, credit portfolio of banking industry as a whole shows indifferent performance. Credit portfolio having concentration in any segment would be affected if the segment does not perform well.

Measuring and managing credit risk, whether for loans, bonds or derivative securities, has become a key issue for financial institutions. The risk analysis can be performed either for stand-alone trades or for portfolios as a whole. Banks adopt the risk analysis in the following manner.

- Standalone analysis for Corporate exposures.
- Portfolio analysis for Retail lending exposures.

The following chart outlines financial risks in lending as shown in Figure:



Risk Measurement

Measurement of credit risk consists of

- Measurement of risk through credit rating/scoring;
- Quantifying the risk through estimating expected loan losses, i.e., the amount of loan losses that bank would experience over a chosen time horizon (through tracking portfolio behaviour over 5 or more years) and unexpected loan losses i.e. the amount by which actual losses exceed the expected loss (through standard deviation of losses or the difference between expected loan losses and some selected target credit loss quartile).

Credit Rating - Why is it Necessary?

Credit Rating of an account is done with the primary objective to determine whether the account, after the expiry of a given period, would remain a performing asset, i.e., it will continue to meet its obligation to its creditors, including Bank and would not be in default. In other words, credit rating exercise seeks to predict whether the borrower would have the capability to honour its financial commitment in future to the rest of the world.

A Credit Rating depicts the credit quality of the borrower and depicts his default. A credit rating process normally would consist of the following parameters:

- Financial Parameter.
- Management Parameter.
- Industry Parameter.
- Business Parameter,

Credit Risk Control and Monitoring



- **Risk taking through lending activities needs to be supported by a very effective control and monitoring mechanism, firstly because this activity is widespread, and secondly, because of very high share of credit risk in the total risk taking activity of a bank.** An elaborate and well-communicated policy at transaction level that articulates guidelines for risk taking, procedural guidelines and an effective monitoring system is necessary. This is also necessary to achieve the desired portfolio. Active portfolio management is required to keep up with the dynamics of the economy. It is also necessary to monitor it.
- Consequently, credit risk control and monitoring is directed both at transaction level and portfolio level.
- It must be mentioned here that an appropriate credit information system is the basic prerequisite for effective control and monitoring. A comprehensive and detailed MIS (Management Information System) and CIS (Credit Information System) is the backbone for an effective CRM System. There is also a need to review the existing MIS available from HO and branches and the applicability of data for analysis purposes. A detailed MIS and CIS structure should be set up and enforced for future data requirements.

Credit Risk Policies and Guidelines at Transaction Level

The instruments of Credit Risk Management at transaction level are:

- Credit Appraisal Process
- Risk Analysis Process
- Credit Audit and Loan Review
- Monitoring Process

There is a need to constantly improve the efficiency for each of these processes in objectively identifying the credit quality of borrowers, enhancing the default analysis, capturing the risk elements adequately for future reference and providing an early warning signal for deterioration in the credit risk of borrowers.

Credit risk taking policy and guidelines at transaction level should be clearly articulated in the Bank's Loan Policy Document approved by the Board. Standards and guidelines should be outlined for

- Delegation of Powers
- Powers Credit Appraisals
- Rating Standards and Benchmarks (derived from the Risk Rating System)
- Pricing Strategy
- Loan Review Mechanism

Credit Approving Authority

- Each Bank should have a carefully formulated scheme of delegation of powers. The banks should also evolve multi-tier credit approving system where the loan



proposals are approved by an 'Approval Grid' or a Committee'. The 'Grid' or 'Committee', comprising at least 3 or 4 officers, may approve the credit facilities above a specified limit and invariably one officer should represent the CRMD, who has no volume and profit targets.

Credit Appraisal

- Credit appraisal guidelines include borrower standards, procedures for analyzing credit requirements and risk factors, policies on standards for presentation of credit proposals, financial covenants, rating standards and benchmarks, etc.
- This brings a uniformity of approach in credit risk taking activity across the organisation. Credit appraisal guidelines may include risk monitoring and evaluation of assets at transaction level, pricing of loans, regulatory/legal compliance, etc.

Prudential Limits

Prudential limits serve the purpose of limiting credit risk. There are several aspects for which prudential limits may be specified. They may include:

- Prudential limits for financial and profitability ratios such as current ratio, debt equity and return on capital or return on assets, debt service coverage ratio, etc.
- Prudential limits for credit exposure
- Prudential limits for asset concentration
- Prudential limits for large exposures
- Prudential limit for maturity profile of the loan book.

Prudential limits may have flexibility for deviations. The conditions subject to which deviations are permitted and the authority thereof should also be clearly spelt out in the Loan Policy.

Risk Pricing

The pricing strategy for credit products should move towards risk-based pricing to generate adequate risk adjusted returns on capital. The Credit Spread should have a bearing on the expected loss rates and charges on capital.

Credit Control and Monitoring At Portfolio Level

Credit control and monitoring at portfolio level deals with the risk of a given portfolio, expected losses, requirement of risk capital, and impact of changing the portfolio mix on risk, expected losses and capital. It also deals with the marginal and absolute risk contribution of a new position and diversification benefits that come out of changing the mix. It also analyses factors that affect the portfolio's risk profile.

The activities include --



- Identification of portfolio credit weakness in advance - through credit quality migrations.
- Moving from measuring obligor specific risk associated with individual credit exposures to measuring concentration effects on the portfolio as a whole.
- Evaluating exposure distribution over rating categories and stipulating quantitative ceilings on aggregate exposure in specified rating categories.
- Evaluating rating-wise distribution in various industries and setting corresponding exposure limits to contain concentration risk.
- Moving towards Credit Portfolio Value at Risk Models.

Some measures to maintain the portfolio quality are:

- Quantitative ceiling on aggregate exposure in specified rating categories.
- Evaluation of rating-wise distribution of borrowers in various industries, business segments, etc.
- Industry-wise and sector-wise monitoring of exposure performance. Where portfolio exposure to a single industry is badly performing, the banks may increase the quality standards for that specific industry.
- Target for probable defaults and provisioning requirements as a prudent planning exercise. For any deviation/s from the expected parameters, an exercise for restructuring of the portfolio should immediately be undertaken and if necessary, the entry-level criteria could be enhanced to insulate the portfolio from further deterioration.
- Undertake rapid portfolio reviews, stress tests and scenario analysis when external environment undergoes rapid changes (e.g., volatility in the forex market, economic sanctions, changes in the fiscal/monetary policies, general slowdown of the economy, market risk events, extreme liquidity conditions, etc.). Based on the findings of stress test, prudential limits, quality standards, etc., may be revised.
- Introduce discriminatory time schedules for review of borrowers.

Active Credit Portfolio Management

Motivation for active credit portfolio management comes from changing demand of traditional products and new business opportunities. Change in demand of traditional products has arisen due to

- Less demand due to disintermediation
- More supply due to capital mobility
- Lower returns and increased importance of risk

The motivation for active credit portfolio management also comes from new opportunities in the economy, such as:

- Pass through certificates



- Syndicated lending
- Project/structured finance

Essentially, new products have different types of risks as compared to traditional products. In addition, banks also have new tools to manage credit portfolio such as:

- Secondary loan trading
- Securitisation
- Credit derivatives

This calls for a business transformation plan - a gradual process with a well-articulated strategy and with a thorough understanding of markets and supported by

- Necessary infrastructure
- Appropriate policy development
- Human resource training
- Careful system selection
- Continuous testing and refinement

Controlling Credit Risk Through Loan Review Mechanism (LRM)

LRM is also called as Credit Audit. LRM an effective tool for constantly evaluating the quality of loan book and to bring about qualitative improvements in credit administration. Loan Review Mechanism is used for large value accounts with responsibilities assigned in various areas such as, **evaluating effectiveness of loan administration, maintaining the integrity of credit grading process, assessing portfolio quality, etc.**

The main objectives of LRM are:

- To promptly identify loans, which develop credit weaknesses and initiate timely corrective action.
- To evaluate portfolio quality and isolate potential problem areas.
- To provide information for determining adequacy of loan loss provision.
- To assess the adequacy of and adherence to, loan policies and procedures, and to monitor compliance with relevant laws and regulations.
- To provide top management with information on credit administration, including credit sanction process, risk evaluation and post-sanction follow up.

Qualification and Independence

- **The Loan Review Officers should have sound knowledge in credit appraisal, lending practices and loan policies of the bank.** They should also be well-versed in the relevant laws/regulations that affect lending activities.



- The independence of Loan Review Officers should be ensured and the findings of the reviews should also be reported directly to the Board or Committee of the Board.

Frequency and Scope of Reviews

- **The Loan Reviews are designed to provide feedback on effectiveness of credit sanction and to identify incipient deterioration in portfolio quality.**
- Reviews of high value loans should be undertaken usually within three months of sanction/renewal or more frequently when factors indicate a potential for deterioration in the credit quality.

Depth of Reviews

The loan reviews should focus on:

- Approval process
- Accuracy and timeliness of credit ratings assigned by loan officers
- Adherence to internal policies and procedures, and applicable laws/regulations
- Compliance with loan covenants
- Post-sanction follow up
- Sufficiency of loan documentation
- Portfolio quality
- Recommendations for improving portfolio quality

Credit Risk Mitigation

- **Credit risk mitigation is an essential part of credit risk management. This refers to the process through which credit risk is reduced or it is transferred to counterparty.** Strategies for risk reduction at transaction level differ from that at portfolio level.
- At transaction level banks use a number of techniques to mitigate the credit risks to which they are exposed. They are mostly traditional techniques and need no elaboration. They are, for example, exposures collateralised by first priority claims, either in whole or in part, with cash or securities, or an exposure guaranteed by a third party. Recent techniques include buying a credit derivative to offset credit risk at transaction level.

Securitisation

- **Securitisation refers to a transaction where financial securities are issued against the cash flow generated from a pool of assets.** Cash flows arising out of payment of interest and repayment of principal are used to service interest and repayment of financial securities.
- Usually an SPV - special purpose vehicle is created for the purpose. Originating bank - that is the bank which has originated the assets -- transfers the ownership



of such assets to the SPV. The SPV issues financial securities and has the responsibility to service interest and repayments on such financial instruments.

Credit Derivatives (CDS)

For most banks, particularly Indian banks, the single largest source of earnings and perhaps earnings volatility also are on account of credit risk. The traditional means to deal with credit risk include lending policies, credit approval processes, discretionary power structure, collateral and guarantees, concentration limits (with regard to single or group borrowers, industries or geographic regions), documentation, etc.

Credit Derivatives Defined

- **A credit derivative is an over-the-counter bilateral contract between two or more counterparties that provide for transfer of risks in a credit asset or credit portfolio without necessarily transferring the underlying asset from the books of the originator.**
- Generally, credit derivatives transfer risks in a credit asset without transferring the underlying asset themselves from the books of the originator. Hence, they are off-balance sheet financial instruments. All credit assets (loans, bonds, account receivable, financial leases, etc.) are bundles of risk and rewards.

Credit Default Swaps (CDS)

- **A Credit default swap is a transaction in which a credit hedger (PB) pays a periodic premium to an investor (PS) in return for protection against a credit event experienced on a reference obligation, (i.e., the underlying credit that is being hedged).**
- Credit events are ISDA defined credit events and include six events, namely - bankruptcy, obligation acceleration, obligation default, failure to pay, repudiation/moratorium and restructuring.

Total Return Swaps (TRS)

- **In a total return swap, the PB swaps with the PS, total actual return (coupon capital appreciation depreciation) on an asset in return for a premium. The premium is arrived at by adding a spread to a reference rate like LIBOR. Thus, in a TRS, the protection seller is able to synthetically create an exposure to the reference asset without actually lending to it.**
- A total return swap represents an off-balance sheet replication of a financial asset such as a loan or bond Whereas credit default swaps capture only credit risk, total return swaps involved the transfer of the total economic return of the asset (i.e., both credit and market risks.)

Credit Linked Notes (CLN)



- **Credit default swaps (CDS) are generally off-balance sheet items and are not funded exposures.** Credit linked notes are on-balance sheet equivalents of CDS, which combine credit derivatives with normal bond instruments and thus convert credit derivatives (generally an OTC instrument) into capital market instruments.

Credit Spread Options

- **Credit Spread options enable credit hedgers to acquire protection from an unfavourable migration or Credit spread risk of an asset, as measured by a widening of its credit spread.** Credit spread options transfer credit spread risk from the credit spread PB to an investor (PS), in return for an upfront or periodic payment of premium.

Example

Transferring default risks; Imagine that an A-rated oil company is planning to arrange a fully drawn one-year credit for Rs. 1,600 Crores and has invited few banks into the deal. The company requested the bank to commit Rs. 600 Crores but the bank's credit portfolio management team has placed a limit of Rs. 200 Crores as they are concerned about the bank's significant exposure to the oil company.

Solution: The bank can commit to the request and arrange a credit default swap with another bank for Rs. 400 Crores. The bank can approach foreign or regional banks that are at a credit risk origination disadvantage and transfer the credit risk of the credit without transferring the loan itself.

The advantages of this approach include:

- The bank-client relationship is preserved.
- Alternative strategies, such as sale in the secondary markets or participation, may have adverse consequences for the bank-client relationship.
- The bank enjoys, the fee-based income associated with the higher level of commitment
- The hedging bank has significantly diversified its risk, only experiencing a default if both the oil company and counterparty bank fail jointly and concurrently to perform. This joint probability of default is likely to be quite low.
- The return on capital of the hedged position can be significantly higher.

Hedging Pitfalls in Practice

Transaction Origination

- Successful credit derivatives dealers endeavour to.
- Establish client/product suitability.
- Identify and fully appreciate end-user motivations and portfolio.



- Provide end users with useful feedback and help manage expectations about the timing of transactions.
- Understand that transaction terms are generally indicative and not firm.
- Appreciate that dealers may have limits on their appetite for certain credits.
- Appreciate the limitations and liquidity restraints of the developing credit derivatives market.

Transactions Structuring

Occurs once a credit derivatives transaction has been originated. The major terms and conditions/issues to confirm at this stage include:

- All settlement methods are agreed and market disruption clauses have been considered.
- The hedging strategy employed is the most efficient vehicle in terms of funding, relationship issues and capital treatment
- If the reference asset and the underlying credit risk are one and the same, no residual basis risk remains (or, if it does, is identified and priced accordingly). In addition, a thorough check of the reference asset is required to identify any risk of pre-payment, extension, sinking fund or call features.
- The assignability of the unvetted underlying assets is established (otherwise alternative settlement techniques need to be established).
- The parties have a thorough understanding of any materiality tests requirements, especially in the case of non-investment grade credits.
- If a credit-linked note is being issued by a founder, it must confirm that credit events in the credit default swap confirmation are mirrored in the credit-linked note pricing supplement.
- Credit events are appropriate for the situation.

Transactions Documentation

All transaction structuring issues must be resolved prior to documentation. A successful documentation process includes:

- Presentation by credit derivatives trading to documentation of a transaction term sheet setting out terms and conditions.
- Good communication between all members of the credit hedging team.
- An appreciation of transaction objectives and goals.
- Problem-solving approach with the credit derivatives trading desk, the end-users and other internal partners
- A well thought-out transaction template or use of ISDA-sponsored transaction confirmation.



CAIIB BFM Module B Unit 6: Operational Risk and Integrated Risk Management

Operational Risk

Operational risk is one area of risk that is faced by all organisations. The more complex an organisation is, the more would be its exposure to operational risk. Operational risk would arise due to deviations from normal and planned functioning of systems, procedures, technology and human failures of omission and commission.

Operational Risk - Classification

Before we classify operational risk into various categories, we must understand the nature of the operational risk. Operational risk arises literally from all the activities undertaken and consequently it is present everywhere in an organisation. Impact of various forms of operational risk on the organisation may vary in degree i.e.,

The nature of operational risk may be listed as:

- Operational risk exists almost everywhere in the organisation.
- Operational risks vary in their components. Some are high occurrence low value risks, while some are low occurrence high value risks.
- Operational risks in the organisation continuously change especially when an organisation is undergoing changes.

The Second Consultative Paper of Basel II suggested classification of operational risks based on the '**Causes**' and '**Effects**'. That is, classifications based on causes that are responsible for operational risks or classifications based on effects of risks were suggested. Classifications based on 'Causes' and 'Effects' are listed below.

Cause-based

- **People oriented causes** - negligence, incompetence, insufficient training, integrity, key man.
- **Process oriented (Transaction based) causes** - business volume fluctuation, organizational complexity, product complexity, and major changes.



- **Process oriented (Operational control based) causes** - inadequate segregation of duties, lack of management supervision, inadequate procedures.
- **Technology oriented causes** - poor technology and telecom, obsolete applications, lack of automation, information system complexity, poor design, development and testing.
- **External causes** - natural disasters, operational failures of a third party, deteriorated social or political context.

Effect Based

- Legal liability
- Regulatory, compliance and taxation penalties
- Loss or damage to assets
- Restitution
- Loss of recourse
- Write-downs

Event Based

- Internal Fraud
- External Fraud
- Employment practices and workplace safety
- Clients, products and business practices
- Damage to physical assets
- Business disruption and system failures
- Execution, delivery and process management

Operational Risk Classification By Event Type

- **Internal Fraud:** Losses due to acts of a type intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination events, which involve at least one internal party.
- **External Fraud:** Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law, by a third party



- **Employment Practices and Work Place Safety:** Losses arising from acts inconsistent with employment, health or safety laws or agreements from payment of personal injury claims, or from diversity/ discrimination events.
- **Clients, Products and Business Practices:** Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product.
- **Damage to Physical Assets:** Losses arising from loss or damage to physical assets from natural disasters or other events.
- **Business Disruption and System Failures:** Losses arising from disruption of business or system failures.
- **Execution, Delivery and Process Management:** Losses from failed transaction processing or process management, from relations with trade counterparties and vendors.

Operational Risk Management Practices

Fundamental principles of operational risk management

Principle 1

The board of directors should take the lead in establishing a strong risk management culture. The board of directors and senior management should establish a corporate culture that is guided by strong risk management and that supports and provides appropriate standards and incentives for professional and responsible behaviour. In this regard, it is the responsibility of the board of directors to ensure that a strong operational risk management culture exists throughout the whole organisation.

Principle 2

Banks should develop, implement and maintain a Framework that is fully integrated into the bank's overall risk management processes. The Framework for operational risk management chosen by an individual bank will depend on a range of factors, including its nature, size, complexity and risk profile.

Governance



The Board of Directors

Principle 3

The board of directors should establish, approve and periodically review the Framework. The board of directors should oversee senior management to ensure that the policies, processes and systems are implemented effectively at all decision levels.

Principle 4

The board of directors should approve and review a risk appetite and tolerance statement for operational risk that articulates the nature, types, and levels of operational risk that the bank is willing to assume.

Senior Management

Principle 5

Senior management should develop for approval by the board of directors a clear, effective and robust governance structure with well defined, transparent and consistent lines of responsibility. Senior management is responsible for consistently implementing and maintaining throughout the organisation policies, processes and systems for managing operational risk in all of the bank's material products, activities, processes and systems consistent with the risk appetite and tolerance.

Risk Management Environment

Identification and Assessment

Principle 6

Senior management should ensure the identification and assessment of the operational risk inherent in all material products/activities, processes and systems to make sure the inherent risks and incentives are well understood.

Principle 7

Senior management should ensure that there is an approval process for all new products, activities, processes and systems that fully assesses operational risk.

Monitoring Reporting



Principles 8

Senior management should implement a process to regularly monitor operational risk profiles and material exposures to losses. Appropriate reporting mechanisms should be in place at the board, senior management, and business line levels that support proactive management of operational risk.

Control and Mitigation

Principle 9

Banks should have a strong control environment that utilises policies, processes and systems; appropriate internal controls; and appropriate risk mitigation and/or transfer strategies.

Business Resiliency and Continuity

Principle 10

Banks should have business resiliency and continuity plans in place to ensure an ability to operate on an ongoing basis and limit losses in the event of severe business disruption.

Principle 11

A bank's public disclosures should allow stakeholders to assess its approach to operational risk management.

Operational Risk Management Practices should be based on a well laid out policy duly approved at the board level that describes the processes involved in controlling operational risks. It should meet the standards set in terms of the principles mentioned above. In addition, well laid down procedures in dealing with various products and activities should be in place. The policies and procedures should also be communicated across the organisation.

The policy should cover

- Operational risk management structure
- Role and responsibilities
- Operational risk management processes



- Operational risk assessment/measurement methodologies

Management Overview and Organisational Structure

- **Role of Board:** The board of directors takes overall responsibility to manage and implement the operational risk framework. It should approve bank's ORM framework and review it periodically. The framework should provide a firm-wide definition of operational risk and lay down the principles of how operational risk is to be identified, assessed, monitored, and controlled/mitigated.
- **Role of Operational Risk Management Committee:** The operational risk management committee should identify the operational risks to which the bank is exposed to, formulate policies and procedures for operational risk management, set clear guidelines on risk assessment/measurement and ensure adequacy of risk mitigating controls.
- **Role of Operational Risk Management Department:** The operational risk management department is the nodal department for identifying, managing and quantifying operational risks. ORMD, in conjunction with groups, lays down procedures for management of operational risks.
- **Role of Internal Audit/Business Functions:** Roles and responsibilities relating to internal audit business functions in the operational risk processes should be clearly defined. These should include comprehensive audit of the ORM framework so as to assess its effectiveness. The internal audit function should be operationally independent and should not be directly responsible for operational risk management.

Processes and Framework

The processes and framework include the following:

- Mapping of Processes and Identification of Risks/Control.
- The key business processes in the bank must be mapped into sub-processes. This should be a joint exercise between the operational risk group and the business groups.



- Implementation of a Qualitative Approach to Aggregating and Assessing Operational Risks.
- A system to qualitatively analyse the operational risk profile using a scorecard approach should be implemented. This would involve self-assessment by the business group and normalization/collation by the operational risk management department.
- Implementation of a Quantitative Approach to Assessing Operational Risks New Product Processes.

Risk Monitoring and Control Practices

Risk Monitoring and Control Practices encompasses the following:

- Collection of Operational Risk Data (incident reporting framework).
- Regular monitoring and feedback mechanism in place for monitoring any deterioration in the operational risk profile.
- Collation of incident reporting data to assess frequency and probability of occurrence of operational risk events.
- Monitoring and control of management of large exposures. The modalities to be prescribed in the Loan Policy document.

Information System Infrastructure: Information system infrastructure should be responsive to the ORM framework.

Operational Risk Quantification

This is by far the most difficult of all risk measurements. The behaviour pattern of operational risk does not follow the statistically normal distribution pattern and that makes it difficult to estimate the probability of an event resulting in losses.

The historical loss distribution pattern, which may provide a method to estimate operating losses requires a data set that has statistically acceptable numbers of loss. Related data may be captured only over a period. Basel II has recognised the difficulties in measurement of operational losses. **Consequently, it has provided options in the measurement of operational risk for the purpose of capital allocation purposes.**

They are:

- The Basic Indicator Approach (BIA)



- The Standardised Approach (TSA)
- Advanced Measurement Approaches (AMA)

Of these, the Basic Indicator and the Standardised Approaches are based on the income generated. The Advance Measurement Approach is based on operational loss measurement. A brief description of the Basel II prescriptions under these approaches is given below. For details, it is advised that Basel II document may be consulted.

The Basic Indicator Approach

- Banks using the Basic Indicator Approach must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (15%) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. This 15% of average gross income is called as Alpha.

Gross income is defined as net interest income plus net non-interest income. It is intended that this measure should:

- Be gross of any provisions (e.g., for unpaid interest);
- Be gross of operating expenses, including fees paid to outsourcing service providers;
- Exclude realised profits/losses from the sale of securities in the banking book; and
- Exclude extraordinary or irregular items as well as income derived from insurance.

To make it further simple, Gross Income of the bank can be arrived at using three formulae given below:

Formula No.1:

Gross Income = Net Profit + Provisions & Contingencies + Expenditure incurred under Schedule 16 – minus profit on HTM and irregular/ non-banking transactions income/ income non-banking transactions (such as insurance etc.).

Formula No. 2:



Gross Income = Operating Profit + Expenditure incurred under Schedule 16 – minus profit on HTM and irregular/ non-banking transactions income /income from non-banking transactions (such as insurance etc.)

Operating Profit = Net Profit + Provisions & Contingences.

Formula No.3:

Gross Income is defined as the net interest income plus non-interest income.

Non-Interest income excludes the profits/losses arising out of the following:

- HTM transactions.
- Income from Insurance business
- Any irregular/ non-banking transactions.

The Standardised Approach

In the Standardised Approach, banks' activities are divided into eight business lines:

- Corporate finance, trading and sales, retail banking, commercial banking, payment and settlement, agency services, asset management, and retail brokerage.
- Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta assigned to that business line (Beta Factors)).

Business Lines Beta Factors

- Corporate finance - 18%
- Trading and sales - 18%
- Retail banking - 12%
- Commercial banking - 15%
- Payment and settlement - 18%
- Agency services - 15%
- Asset management - 12%



- Retail brokerage - 12%

Advanced Measurement Approach (AMA)

- Under the AMA, the regulatory capital requirement will equal the risk measure generated by the bank's internal operational risk measurement system using the quantitative and qualitative criteria for the AMA discussed below. Use of the AMA is subject to supervisory approval.

A Generic Measurement Approach

The first step in measurement approach is operation profiling. The steps involved OP Profiling are:

- Identification and quantification of operational risks in terms of its components.
- Prioritisation of operational risks and identification of risk concentrations - hot spots resulting in lower exposure.
- Formulation of bank's strategy for operational risk management and risk based audit.

Estimated level of operational risk depends on

- Estimated probability of occurrence
- Estimated potential financial impact
- Estimated impact of internal controls

Estimated Probability of Occurrence

This will be based on historical frequency of occurrence and estimated likelihood of future occurrence. Probability is mapped on a scale of 5 say where

- Implies negligible risk
- Implies low risk
- Implies medium risk
- Implies high risk
- Implies very high risk

Estimated Potential Financial Impact



- This will be based on severity of historical impact and estimated severity of impact from unforeseen events. Probability is mapped on a scale of 5 as mentioned above.

Estimated Impact of Internal Controls

- This will be based on historical effectiveness of internal controls and estimated impact of internal control on risks. This is estimated as fraction in relation to total control, which is valued at 100%.
- Estimated level of operational risk = Estimated probability of occurrence impact x Estimated potential financial x Estimated impact of internal controls

In case of a hypothetical example where

- Probability of occurrence = 2 (Medium)
- Potential financial impact = 4 (very high)
- Impact of internal controls = 50%
- Estimated level of operational risk = $[(2 * 4 * (1 - 0.50))]^{0.5} = 2.00$ or 'Low'

Scenario Analysis

Basel II guidelines on scenario analysis are as follows.

- A bank must use scenario analysis based on expert opinion in conjunction with external data to evaluate its exposure to high-severity events. This approach draws on the knowledge of experienced business managers and risk management experts to derive reasoned assessments of plausible severe losses.
- *In addition, scenario analysis should be used to assess the impact of deviations from the correlation assumptions embedded in the bank's operational risk measurement framework, in particular, to evaluate potential losses arising from multiple simultaneous operational risk loss events.*
- Over time, such assessments need to be validated and re-assessed through comparison to actual loss experience to ensure their reasonableness.

The Necessity of Integrated Risk Management



Risk Management is a basic necessity for financial institutions of all sizes, and ultimately central to their success and survival. It integrates an organisation's internal and external business processes by applying standard risk terminology, metrics and reporting to facilitate optimal risk/return decisions. An integrated approach to risk management centralizes the process of supervising risk exposure so that the organisation can determine how best to absorb, limit or transfer risk.

When properly implemented, Integrated Risk Management:

- Aligns the strategic aspects of risk with day-to-day operational activities.
- Facilitates greater transparency for investors and regulators.
- Enhances revenue and earnings growth.
- Controls downside risk potential.

Integrated Risk Management: Approach

The Process of Integrated Risk Management Consists of

- Strategy
- Organisation
- Process
- System

CAIIB BFM Module B Unit 7: Liquidity Risk Management

Liquidity Risk Management - Need & Importance

A bank is said to be solvent if its net worth is not negative. To put it differently, a bank is solvent if the total realizable value of its assets is more than its outside liabilities (i.e., other than its equity/owned funds). As such, at any point in time, a bank could be (i) both solvent and liquid or (ii) liquid but not solvent or (iii) solvent but not liquid or (iv) neither solvent nor liquid. The need to stay both solvent and liquid therefore, makes effective liquidity management crucial for increasing the profitability as also the long-term viability/solvency of a bank. This also highlights the importance of the need of having the best Liquidity Risk Management practices in place in Banks.

Some Key Considerations in Liquidity Risk Management include:

- Availability of liquid assets,



- Extent of volatility of the deposits,
- Degree of reliance on volatile sources of funding,
- Level of diversification of funding sources,
- Historical trend of stability of deposits,
- Quality of maturing assets,
- Market reputation,
- Availability of undrawn standbys,
- Impact of off balance sheet exposures on the balance sheet, and
- Contingency plans.

Some of the issues that need to be kept in view while managing liquidity include:

- The extent of operational liquidity, reserve liquidity and contingency liquidity that are required.
- The impact of changes in the market or economic condition on the liquidity needs.
- The availability, accessibility and cost of liquidity.
- The existence of early warning systems to facilitate prompt action prior to surfacing of the problem and
- The efficacy of the processes in place to ensure successful execution of the solutions in times of need.

Potential Liquidity Risk Drivers

The internal and external factors in banks that may potentially lead to liquidity risk problems in Banks are as under:

Internal Banking Factors	External Banking Factors
High off-balance sheet exposures	Very sensitive financial markets depositors.
The banks rely heavily on the short-term corporate deposits	External and internal economic shocks.
A negative gap (liability is more than the asset) in the maturity dates of assets and liabilities.	Low/slow economic performances.



The banks' rapid asset expansions exceed the available funds on the liability side.	Decreasing depositors' trust on the banking sector
Concentration of deposits in the short term Tenor	Non-economic factors
Less allocation in the liquid government instruments.	Sudden and massive liquidity withdrawals from depositors.
Fewer placements of funds in long-term deposits.	Unplanned termination of government deposits.

Types of Liquidity Risk

Banks face the following types of liquidity risk:

- **Funding Liquidity Risk** - the risk that a bank will not be able to meet efficiently the expected and unexpected current and future cash flows and collateral needs without affecting either its daily operations or its financial condition.
- **Market liquidity Risk** - the risk that a bank cannot easily offset or eliminate a position at the prevailing market price because of inadequate market depth or market disruption.

Principles For Sound Liquidity Risk Management

After the global financial crisis, in recognition of the need for banks to improve their liquidity risk management, the Basel Committee on Banking Supervision (BCBS) published "**Principles for Sound Liquidity Risk Management and Supervision**" in September 2008. The broad principles for sound liquidity risk management by banks as envisaged by BCBS are as under:

BCBS's Fundamental principle for the management and supervision of liquidity risk



Principle 1	<p>A bank is responsible for the sound management of liquidity risk. A bank should establish a robust liquidity risk management framework that ensures it maintains sufficient liquidity, including a cushion of unencumbered, high quality liquid assets, to withstand a range of stress events, including those involving the loss or impairment of both unsecured and secured funding sources.</p> <p>Supervisors should assess the adequacy of both a bank's liquidity risk management framework and its liquidity position and should take prompt action if a bank is deficient in either area in order to protect depositors and to limit potential damage to the financial system.</p>
Governance of liquidity risk management	
Principle 2	<p>A bank should clearly articulate a liquidity risk tolerance that is appropriate for its business strategy and its role in the financial system.</p>
Principle 3	<p>Senior management should develop a strategy, policies and practices to manage liquidity risk in accordance with the risk tolerance and to ensure that the bank maintains sufficient liquidity. Senior management should continuously review information on the bank's liquidity developments and report to the board of directors on a regular basis. A bank's board of directors should review and approve the strategy, policies and practices related to the management of liquidity at least annually and ensure that senior management manages liquidity risk effectively.</p>



Principle 4	A bank should incorporate liquidity costs, benefits and risks in the internal pricing, performance measurement and new product approval process for all significant business activities (both on- and off-balance sheet), thereby aligning the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole.
Measurement and management of liquidity risk	
Principle 5	A bank should have a sound process for identifying, measuring, monitoring and controlling liquidity risk. This process should include a robust framework for comprehensively projecting cash flows arising from assets, liabilities and off-balance sheet items over an appropriate set of time horizons.
Principle 6	A bank should actively monitor and control liquidity risk exposures and funding needs within and across legal entities, business lines and currencies, taking into account legal, regulatory and operational limitations to the transferability of liquidity.
Principle 7	A bank should establish a funding strategy that provides effective diversification in the sources and tenor of funding. It should maintain an ongoing presence in its chosen funding markets and strong relationships with funds providers to promote effective diversification of funding sources. A bank should regularly gauge its capacity to raise funds quickly from each source. It should identify the main factors that affect its ability to raise funds and monitor those factors closely to ensure that estimates of fund raising capacity remain valid.



Principle 8	A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.
Principle 9	A bank should actively manage its collateral positions, differentiating between encumbered and unencumbered assets. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilised in a timely manner.
Principle 10	A bank should conduct stress tests on a regular basis for a variety of short-term and protracted institution-specific and market-wide stress scenarios (individually and in combination) to identify sources of potential liquidity strain and to ensure that current exposures remain in accordance with a bank's established liquidity risk tolerance. A bank should use stress test outcomes to adjust its liquidity risk management strategies, policies, and positions and to develop effective contingency plans.
Principle 11	A bank should have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations. A CFP should outline policies to manage a range of stress environments, establish clear lines of responsibility, include clear invocation and escalation procedures and be regularly tested and updated to ensure that it is operationally robust.
Principle 12	A bank should maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios, including those that involve the loss or impairment of unsecured and typically available secured funding sources. There should be no legal, regulatory or operational impediment to using these assets to obtain funding.



Public disclosure	
Principle 13	A bank should publicly disclose information on a regular basis that enables market participants to make an informed judgment about the soundness of its liquidity risk management framework and liquidity position.

Governance of Liquidity Risk Management

The Reserve Bank had issued guidelines on Asset Liability Management (ALM) system, covering inter alia liquidity risk management system, in February 1999 and October 2007. Successful implementation of any risk management process has to emanate from the top management in the bank with the demonstration of its strong commitment to integrate basic operations and strategic decision making with risk management. *Ideally, the organisational set up for liquidity risk management should be as under:*

- **The Board of Directors (BOD):** The BoD should have the overall responsibility for management of liquidity risk. The Board should decide the strategy, policies and procedures of the bank to manage liquidity risk in accordance with the liquidity risk tolerance/limits as detailed in paragraph 14. The risk tolerance should be clearly understood at all levels of management. The Board should also ensure that it understands the nature of the liquidity
- **The Risk Management Committee:** The Risk Management Committee, which reports to the Board, consisting of Chief Executive Officer (CEO) Chairman and Managing Director (CMD) and heads of credit, market and operational risk management committee should be responsible for evaluating the overall risks faced by the bank including liquidity risk. The potential interaction of liquidity risk with other risks should also be included in the risks addressed by the risk management committee.
- **The Asset-Liability Management Committee (ALCO):** The Asset-Liability Management Committee (ALCO) consisting of the bank's top management should be responsible for ensuring adherence to the risk tolerance/limits set by the



Board as well as implementing the liquidity risk management strategy of the bank in line with bank's decided risk management objectives and risk tolerance.

- **The Asset Liability Management (ALM) Support Group:** The ALM Support Group consisting of operating staff should be responsible for analysing, monitoring and reporting the liquidity risk profile to the ALCO. The group should also prepare forecasts (simulations) showing the effect of various possible changes in market conditions on the bank's liquidity position and recommend action needed to be taken to maintain the liquidity position/adhere to bank's internal limits.

Liquidity Risk Management Policy

- **Liquidity Risk Tolerance:** Banks should have an explicit liquidity risk tolerance set by the Board of Directors. The risk tolerance should define the level of liquidity risk that the bank is willing to assume, and should reflect the bank's financial condition and funding capacity. The tolerance should ensure that the bank manages its liquidity in normal times in such a way that it is able to withstand a prolonged period of, both institution specific and market wide stress events.
- **Strategy for Managing Liquidity Risk:** The strategy for managing liquidity risk should be appropriate for the nature, scale and complexity of a bank's activities. In formulating the strategy, banks/banking groups should take into consideration its legal structures, key business lines, the breadth and diversity of markets, products, jurisdictions in which they operate and home and host country regulatory requirements, etc. Strategies should identify primary sources of funding for meeting daily operating cash outflows, as well as expected and unexpected cash flow fluctuations.

Management of Liquidity Risk

A bank should have a sound process for identifying, measuring, monitoring and mitigating liquidity risk as enumerated below:

- **Identification:** A bank should define and identify the liquidity risk to which it is exposed for each major on and off balance sheet position, including the effect of



embedded options and other contingent exposures that may affect the bank's sources and uses of funds and for all currencies in which a bank is active.

- Measurement of Liquidity Risk:** There are two simple ways of measuring liquidity; one is the stock approach and the other, flow approach. The stock approach is the first step in evaluating liquidity. Under this method, certain ratios, like liquid assets to short term total liabilities, purchased funds to total assets, core deposits to total assets, loan to deposit ratio, etc., are calculated and compared to the benchmarks that a bank has set for itself. While the stock approach helps up in looking at liquidity from one angle, it does not reveal the intrinsic liquidity profile of a bank.

Ratios In Respect Of Liquidity Risk Management

Certain critical ratios in respect of liquidity risk management and their significance for banks are given below. Banks may monitor these ratios by putting in place an internally defined limit approved by the Board for these ratios.

Sl. No.	Ratio	Significance	Industry Average (in %)
1.	(Volatile liabilities - Temporary Assets) (Earning Assets - Temporary Assets)	Measures the extent to which volatile money supports bank's basic earning assets. Since the numerator represents short-term, interest sensitive funds, a high and positive number implies some risk of illiquidity.	40
2.	Core deposits/Total Assets	Measures the extent to which assets are funded through stable deposit base.	50



3.	$(\text{Loans} + \text{mandatory SLR} + \text{mandatory CRR} + \text{Fixed Assets}) / \text{Total Assets}$	Loans including mandatory cash reserves and statutory liquidity investments are least liquid and hence a high ratio signifies the degree of 'illiquidity' embedded in the balance sheet.	80
4.	$(\text{Loans} + \text{mandatory SLR} + \text{mandatory CRR} + \text{Fixed Assets}) / \text{Core Deposits}$	Measure the extent to which illiquid assets are financed out of core deposits.	150
5.	$\text{Temporary Assets} / \text{Total Assets}$	Measures the extent of available liquid assets. A higher ratio could impinge on the asset utilisation of banking system in terms of opportunity cost of holding liquidity.	40
6.	$\text{Temporary Assets} / \text{Volatile Liabilities}$	Measures the cover of liquid investments relative to volatile liabilities. A ratio of less than 1 indicates the possibility of a liquidity problem.	60
7.	$\text{Volatile Liabilities} / \text{Total Assets}$	Measures the extent to which volatile liabilities fund the balance sheet.	60



Volatile Liabilities: (Deposits + borrowings and bills payable up to 1 year). Letters of credit – full outstanding. Component-wise CCF of other contingent credit and commitments. Swap funds (buy/sell) up to one year. Current deposits (CA) and Savings deposits (SA) i.e. (CASA) deposits reported by the banks as payable within one year (as reported in structural liquidity statement) are included under volatile liabilities. Borrowings include from RBI, call, other institutions and refinance.

Temporary assets = Cash + Excess CRR balances with RBI + Balances with banks + Bills purchased/ discounted up to 1 year + Investments up to one year + Swap funds (sell/buy) up to one year.

Earning Assets = Total assets - (Fixed assets + Balances in current accounts with other banks + Other assets excluding leasing + Intangible assets).

Core deposits = All deposits (including CASA) above 1 year (as reported in structural liquidity statement) + net worth.

Stress Testing

- **Stress testing should form an integral part of the overall governance and liquidity risk management culture in banks.** A bank should conduct stress tests on a regular basis for a variety of short term and protracted bank specific and market wide stress scenarios (individually and in combination).
- In designing liquidity stress scenarios, the nature of the bank's business, activities and vulnerabilities should be taken into consideration so that the scenarios incorporate the major funding and market liquidity risks to which the bank is exposed.

Contingency Funding Plan

- A bank should formulate a contingency funding plan (CFP) for responding to severe disruptions which might affect the bank's ability to fund some or all of its activities in a timely manner and at a reasonable cost CFPs should prepare the bank to manage a range of scenarios of severe liquidity stress that include both bank specific and market-wide stress and should be commensurate with a bank's complexity, risk profile, scope of operations.



Overseas Operations of The Indian Banks' Branches And Subsidiaries And Branches Of Foreign Banks In India

- A bank's liquidity policy and procedures should also provide detailed procedures and guidelines for their overseas branches/subsidiaries to manage their operational liquidity on an ongoing basis. Similarly, foreign banks operating in India should also be self-reliant with respect to liquidity maintenance and management.

Broad Norms In Respect Of Liquidity Management

Some of the broad norms in respect of liquidity management are as follows:

(i) Banks should not normally assume voluntary risk exposures extending beyond a period of ten years

(ii) Banks should endeavour to broaden their base of long-term resources and funding capabilities consistent with their long term assets and commitments.

(iii) The limits on maturity mismatches shall be established within the following tolerance levels (a) long term resources should not fall below 70% of long term assets; and (b) long and medium term resources together should not fall below 80% of the long and medium term assets. These controls should be undertaken currency-wise, and in respect of all such currencies which individually constitute 10% or more of a bank's consolidated overseas balance sheet. Netting of inter-currency positions and maturity gaps is not allowed. For the purpose of these limits. **Short term, medium term and long term are defined as under:**

- **Short-term:** those maturing within 6 months.
- **Medium-term:** those maturing in 6 months and longer but within 3 years.
- **Long-term:** those maturing in 3 years and longer.

(iv) The monitoring system should be centralised in the International Division (ID) of the bank for controlling the mismatch in asset-liability structure of the overseas sector on a consolidated basis, currency-wise. The ID of each bank may review the structural maturity mismatch position at quarterly intervals and submit the review/s to the top management of the bank.



Liquidity Across Currencies

- **Banks should have a measurement, monitoring and control system for liquidity positions in the major currencies in which they are active.** For assessing the liquidity mismatch in foreign currencies, as far as domestic operations are concerned, banks are required to prepare Maturity and Position (MAP) statements according to the extant instructions.
- A bank should also undertake separate analysis of its strategy for each major currency individually by taking into account the outcome of stress testing.

Management Information System (MIS)

- **A bank should have a reliable MIS designed to provide timely and forward-looking information on the liquidity position of the bank and the ALM Group should place this information periodically to the Board and ALCO, both under normal and stress situations.**
- The MIS should cover liquidity positions in all currencies in which the bank conducts its business - both on a subsidiary/branch basis (in all countries in which the bank is active) and on an aggregate group basis.

Reporting To The Reserve Bank Of India

Banks are required to submit the liquidity return, as per the prescribed format to the Chief General Manager-in-Charge, Department of Banking Supervision, Reserve Bank of India, Central Office, World Trade Centre, Mumbai as detailed below:

Statement of Structural Liquidity:

The existing liquidity reporting requirements have been reviewed by RBI. Under the revised requirements, the time buckets are to be aligned as (with effect from February 1, 2016) as per the table given below:

Next day	2-7 days	8-14 days	15-30 days	31 day to 2 mon	>2 m to 3 mon	>3 m to 6 m	>6m to 1 yr	>1yr to 3 yrs	>3yr to 5 yrs	More than 5 yrs
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Further, the statement is required to be reported in five parts viz.

- 'For domestic currency, Indian operations';
- 'For foreign currency, Indian operations';
- 'For combined Indian operations';
- 'For overseas operations' and for
- 'Consolidated bank operations.



While statements at (i) to (iii) are required to be submitted fortnightly, statements at (iv) and (v) are required to be submitted at monthly and quarterly intervals, respectively. The periodicity in respect of each part of the return is given in the table ahead:

Sl. No.	Name of the Liquidity Return (LR)	Periodicity	Time period by which required to be reported
Structural Liquidity Statement		Fortnightly*	within a week from thereporting date
(i)	Part A1 – Statement of Structural Liquidity – Domestic Currency, Indian Operations		
(ii)	Part A2 – Statement of Structural Liquidity – Foreign Currency, Indian Operations	do	do
(iii)	Part A3 – Statement of Structural Liquidity – Combined Indian Operations	do	do
(iv)	Part B – Statement of Structural Liquidity for Overseas Operations	Monthly#	within 15 days from thereporting date
(v)	Part C – Statement of Structural Liquidity – For Consolidated Bank Operations	Quarterly#	within a month from thereporting date

*Reporting dates will be 15th and last date of the month – in case these dates are holidays, the reporting dates will be the previous working day.

#Reporting date will be the last working day of the month/quarter.

Internal Controls

- A bank should have appropriate internal controls, systems and procedures to ensure adherence to liquidity risk management policies and procedure as also adequacy of liquidity risk management functioning.
- A Bank's Management should ensure that an independent party regularly reviews and evaluates the various components of the bank's liquidity risk management process. These reviews should assess the extent to which the bank's liquidity risk management complies with the regulatory/supervisory instructions as well as its own policy.
- The independent review process should report key issues requiring immediate attention, including instances of non-compliance to various guidance/limits for prompt corrective action consistent with the Board approved policy. A bank should have a sound process for identifying, measuring, monitoring and mitigating liquidity risk.

CAIB Paper 2 (BFM) Module B Unit 8: Basel III Framework on Liquidity Standards



Objective

- The LCR standard aims to ensure that a bank maintains an adequate level of unencumbered HQLA, that can be converted into cash to meet its liquidity needs for a 30 calendar day time horizon under a significantly severe liquidity stress scenario specified by supervisors.
- At a minimum, the stock of liquid assets should enable the bank to survive until day 30 of the stress scenario, by which time it is assumed that appropriate corrective actions can be taken.

Scope

- To start with, the LCR and monitoring tools would be applicable for Indian banks at whole bank level only i.e. on a stand-alone basis including overseas operations through branches.
- However, banks should endeavour to move over to meeting the standard at consolidated level also. For foreign banks operating as branches in India, the framework would be applicable on stand-alone basis (i.e. for Indian operations only).

Liquidity Coverage Ratio (LCR)

The Liquidity Coverage ratio is computed as under:

$$\frac{\text{Stock of High-Quality Liquid Assets}}{\text{Total Net Cash Outflows over the next 30 calendar days}} \geq 100\%$$

Calculation of LCR

- As stated in the definition of LCR, it is a ratio of two factors, viz. the Stock of HQLA and the Net Cash Outflows over the next 30 calendar days.
- Therefore, computation of LCR of a bank will require calculations of the numerator and denominator of the ratio, as detailed in the RBI Circular.

Liquidity Risk Monitoring Tools



In addition to the two liquidity standards, the Basel III framework also prescribes five monitoring tools/ metrics for better monitoring a bank's liquidity position.

These metrics along with their objective and the prescribed returns are as under:

Contractual Mismatch Maturity

- The contractual maturity mismatch profile identifies the gaps between the contractual inflows and outflows of liquidity for defined time bands. These maturity gaps indicate how much liquidity a bank would potentially need to raise in each of these time bands if all outflows occurred at the earliest possible date.
- This metric provides insight into the extent to which the bank relies on maturity transformation under its current contracts.

Concentration of Funding

- This metric is meant to identify those sources of funding that are of such significance, the withdrawal of which could trigger liquidity problems. The metric thus encourages the diversification of funding sources recommended in the Basel Committee's Sound Principles.
- This metrics aims to address the funding concentration of banks by monitoring their funding from each significant counterparty, each significant product/instrument and each significant currency.

Available Unencumbered Assets

- This metric provides supervisors with data on the quantity and key characteristics of banks' available unencumbered assets. These assets have the potential to be used as collateral to raise additional secured funding in secondary markets and/or are eligible at central banks.

LCR by Significant Currency

- While the LCR standard is required to be met in one single currency, in order to better capture potential currency mismatches, the LCR in each significant currency needs to be monitored.

Market-related Monitoring Tools



- This includes high frequency market data that can serve as early warning indicators in monitoring potential liquidity difficulties at banks.

Basel III Liquidity Returns

S. No.	Name of the Basel III Liquidity Return (BLR)	Frequency of Submission	Time Period by which Required to be Reported
1.	Statement on Liquidity Coverage Ratio (LCR)-BLR-1	Monthly	within 15 days
2.	Statement of Funding Concentration- BLR-	Monthly	within 15 days
3.	Statement of Available Unencumbered Assets - BLR-3	Quarterly	within a month
4.	LCR by Significant Currency - BLR-4	Monthly	within a month
5.	Statement on Other Information on Liquidity - BLR-5	Monthly	within 15 days

Net Stable Funding Ratio

RBI, vide its circular dated May 17, 2018 released the final guidelines on Net Stable Funding Ratio (NSFR). The NSFR guidelines was issued to ensure reduction in funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress. The objective of NSFR is to ensure that banks maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities. A sustainable funding structure is intended to reduce the probability of erosion of a bank's liquidity position due to disruptions in its regular sources of funding that would increase the risk of its failure and potentially lead to broader systemic stress.

The NFSR limits overreliance on short-term wholesale funding, encourages better assessment of funding risk across all on- and off-balance sheet items, and promotes funding stability. The Reserve Bank originally proposed to make NFSR applicable to banks in India from January 1, 2018. However, these time lines have undergone changes. RBI vide its Circular dated 5th February, 2021 deferred the implementation of NSFR upto 30th September, 2021 in view of the ongoing stress on account of COVID-19.



Accordingly, the NSFR Guidelines came into effect from October 1, 2021. The NSFR would be applicable for Indian banks at the solo as well as consolidated level. For foreign banks operating as branches in India, the framework would be applicable on stand-alone basis (i.e., for Indian operations only).

The NSFR is defined as the amount of available stable funding relative to the amount of required stable funding. "Available stable funding" (ASF) is defined as the portion of capital and liabilities expected to be reliable over the time horizon considered by the NSFR, which extends to one year. The amount of stable funding required ("Required stable funding") (RSF) of a specific institution is a function of the liquidity characteristics and residual maturities of the various assets held by that institution as well as those of its off-balance sheet (OBS) exposures.

$$\text{NSFR} = \frac{\text{Available stable funding (ASF)}}{\text{Required stable funding (RSF)}} \geq 100\%$$

The above ratio should be equal to at least 100% on an ongoing basis. However, the NSFR would be supplemented by supervisory assessment of the stable funding and liquidity risk profile of a bank.

Definition and Computation of Available Stable Funding

The amount of ASF is measured, based on the broad characteristics of the relative stability of an institution's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. The amount of ASF is calculated by first assigning the carrying value of an institution's capital and liabilities to one of five categories as presented below. The amount assigned to each category is then multiplied by an ASF factor, and the total ASF is the sum of the weighted amounts. Carrying value represents the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments.



<i>Sr. No.</i>	<i>Components of ASF category (liability categories)</i>	<i>Associated ASF factor</i>
(i)	• Total regulatory capital (excluding Tier 2 instruments with residual maturity of less than one year)	100%
	• Other capital instruments with effective residual maturity of one year or more	
	• Other liabilities with effective residual maturity of one year or more	
(ii)	• Stable non-maturity (demand) deposits and term deposits with residual maturity of less than one year provided by retail and small business customers	95%
(iii)	• Less stable non-maturity deposits and term deposits with residual maturity of less than one year provided by retail and small business customers	90%
(iv)	• Funding with residual maturity of less than one year provided by non- financial corporate customers	50%
	• Operational deposits	
	• Funding with residual maturity of less than one year from sovereigns, PSEs, and multilateral and national development banks	
	• Other funding with residual maturity between six months and less than one year not included in the above categories, including funding provided by central banks and financial institutions	
(v)	• All other liabilities and equity not included in the above categories, including liabilities without a stated maturity (with a specific treatment for deferred tax liabilities and minority interests)	0%
	• NSFR derivative liabilities net of NSFR derivative assets if NSFR derivative liabilities are greater than NSFR derivative assets	
	• "Trade date" payables arising from purchases of financial instruments, foreign currencies and commodities.	

Definition and Computation of Required Stable Funding (RSF)

The amount of required stable funding is measured based on the broad characteristics of the liquidity risk profile of an institution's assets and OBS exposures. The amount of required stable funding is calculated by first assigning the carrying value of an institution's assets to the categories listed in the Table



<i>Sr. No.</i>	<i>Components of RSF category</i>	<i>Associated RSF factor</i>
(i)	<ul style="list-style-type: none"> • Coins and banknotes • Cash Reserve Ratio (CRR) including excess CRR • All claims on RBI with residual maturities of less than six months • “Trade date” receivables arising from sales of financial instruments, foreign currencies and commodities. 	0%
(ii)	<ul style="list-style-type: none"> • Unencumbered Level 1 assets, excluding coins, banknotes and CRR • Unencumbered SLR Securities 	5%
(iii)	<ul style="list-style-type: none"> • Unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 assets as defined in LCR circular dated June 9, 2014 and updated from time to time, and where the bank has the ability to freely re-hypothecate the received collateral for the life of the loan 	10%
(iv)	<ul style="list-style-type: none"> • All other ‘standard’ unencumbered loans to financial institutions with residual maturities of less than six months not included in the above categories • Unencumbered Level 2A assets 	15%
(v)	<ul style="list-style-type: none"> • Unencumbered Level 2B assets • HQLA encumbered for a period of six months or more and less than one year • ‘Standard’ Loans to financial institutions and central banks with residual maturities between six months and less than one year • Deposits held at other financial institutions for operational purposes • All other assets not included in the above categories with residual maturity of less than one year, including ‘standard’ loans to non-financial corporate clients, to retail and small business customers, and ‘standard’ loans to sovereigns and PSEs 	50%



<i>Sr. No.</i>	<i>Components of RSF category</i>	<i>Associated RSF factor</i>
(vi)	<ul style="list-style-type: none"> Unencumbered 'standard' residential mortgages with a residual maturity of one year or more and with the minimum risk weight permitted under the Standardised Approach 7 	65%
	<ul style="list-style-type: none"> Other unencumbered 'standard' loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the Standardised Approach 	
(vii)	<ul style="list-style-type: none"> Cash, securities or other assets posted as initial margin for derivative contracts and cash or other assets provided to contribute to the default fund of a CCP 	85%
	<ul style="list-style-type: none"> Other unencumbered performing loans with risk weights greater than 35% under the Standardised Approach and residual maturities of one year or more, excluding loans to financial institutions 	
	<ul style="list-style-type: none"> Unencumbered securities that are not in default and do not qualify as HQLA/SLR with a remaining maturity of one year or more and exchange-traded equities 	
	<ul style="list-style-type: none"> Physical traded commodities, including gold 	
(viii)	<ul style="list-style-type: none"> All assets that are encumbered for a period of one year or more 	100%
	<ul style="list-style-type: none"> NSFR derivative assets net of NSFR derivative liabilities if NSFR derivative assets are greater than NSFR derivative liabilities 	
	<ul style="list-style-type: none"> 5% of derivative liabilities as calculated according to para 8.1 	
	<ul style="list-style-type: none"> All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, items deducted from regulatory capital, retained interest, insurance assets, subsidiary interests and defaulted securities 	
	<ul style="list-style-type: none"> All restructured 'standard' loans which attract higher risk weight and additional provision 	

Sr. No.	Off-balance Sheet Items which require stable Funding	Associated RSF factor
(i)	Irrevocable and conditionally revocable credit and liquidity facilities to any client	5% of the currently undrawn portion
(ii)	Other contingent funding obligations, including products and instruments such as:	
	• Unconditionally revocable credit and liquidity facilities	5% of the currently undrawn portion
	• Non-contractual obligations such as:	
	– potential requests for debt repurchases of the bank's own debt or that of related conduits, securities investment vehicles and other such financing facilities	
	– structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs)	
	– managed funds that are marketed with the objective of maintaining a stable value	
(iii)	• Trade finance-related obligations (including guarantees and letters of credit)	3% of the currently undrawn portion
	• Guarantees and letters of credit unrelated to trade finance obligations	

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CAIIB Paper 2 (BFM) Module C: Treasury Management

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CAIIB Paper 2 (BFM) Module C Unit 1: Introduction to Treasury Management

The Concept

- Conventionally, the Treasury function was confined to funds management - maintaining adequate cash balances to meet day-to-day requirements, deploying surplus funds generated from operations, and sourcing funds to bridge occasional gaps in cash flow.
- In the context of a bank, the Treasury is also responsible to meet the reserve requirements, viz. holding minimum cash balances required as per Cash Reserve Ratio (CRR) with Reserve Bank of India, and investing funds in approved securities to the extent required under Statutory Liquidity Ratio (SLR). Thus, the Treasury function was essentially liquidity management, and from an organizational point of view, Treasury was considered as a service centre.

Functions of Integrated Treasury

Integrated Treasury, in a banking set-up, refers to integration of money market, securities market and foreign exchange operations. Integrated Treasury, in the



Indian context, is the direct result of reforms in the financial sector, the most important reforms being deregulation of interest rates and partial convertibility of Rupee. Rupee is already freely convertible on current account, and to a large extent, also convertible on capital account, owing to major relaxations allowed by the Reserve Bank, in the area of foreign direct investment (FDI), external commercial borrowings (ECB) and overseas direct investment (ODI) by Indian corporates, and foreign currency operations of resident Indians. Banks have also been allowed large limits, in proportion to their net worth, for overseas borrowing and investment.

We may now restate the driving force of Integrated Treasury as:

- Integrated Cash Flow Management
- Interest Arbitrage
- Access to global resources
- Corporate demand for high-end services, and
- Risk Management

Summarise the functions of Integrated Treasury as:

- Meeting reserve requirements (CRR and SLR)
- Global cash management
- Efficient merchant services, which include foreign exchange (forex) and advisory services
- Optimising profit by exploiting market opportunities in
 - i) Forex market
 - ii) Money market
 - iii) Securities market (debt, equity and credit derivative markets)
- Risk management, i.e., managing the market risk of the bank/entity
- Assisting bank management in ALM

Treasury activity thus encompasses fund management, investment, forex operations, trading and risk management services in a multi-currency environment. To this, we may further add the evolving role of Treasury in managing the balance sheet risks, in coordination with other banking departments.

It is necessary to understand and appreciate the three distinct roles Treasury is expected to play:



- **Liquidity Management:** Treasury is responsible for managing short-term funds across currencies, and also for complying with reserve requirements (CRR and SLR).
- **Proprietary Positions:** Treasury may trade in currencies, securities and other financial instruments, including derivatives, in order to contribute to Bank's profits.
- **Risk Management:** Treasury will aid Management in bridging asset-liability mismatches (ALM), will provide derivative tools to manage risks in client's business, and will also manage risks inherent in its own proprietary positions.

The Process of Globalisation

We mentioned globalisation as a principal factor contributing to integration of treasury activity. **Globalisation refers to interaction between domestic and global markets, and may generally be defined as:**

The process of integrating domestic market with global markets, characterised by free capital flows and minimum regulatory intervention.

Funds flow on capital account may take one or more of the following routes:

- **Portfolio investment:** Foreign investors investing in domestic equity and debt markets
- **Direct investment:** Foreign companies and foreign institutional investors investing long term funds in domestic companies, new projects, manufacturing facilities, business process outsourcing etc.
- External commercial borrowings
- Issue of equity/debt in global markets
- Mergers & acquisitions - involving domestic and foreign entities
- Payment for technology transfer, royalties, financial services etc.

RBI allowed IRFs, deriving value from the following underlying, on the recognised stock exchanges:

- 91-Day Treasury Bills;
- 2-year , 5-year and 10-year coupon bearing notional Government of India security; and



- Coupon bearing Government of India security.

Further relaxations on eligibility for exchange traded IRFs were given by changing the residual maturity in June, 2015.

Evolving Role of Treasury as Profit Centre

- **Foreign Exchange Business:** Buying and selling foreign currency to customers constitutes a major source of other income' for the banks. The difference between 'buy sell rates - known as 'spread' - is the profit for the bank.
- **Money Market Deals:** Conventional banking operation in money market was confined to lending surplus funds and borrowing funds when required. Interest on funds lent in the market is a source of income, but it can hardly be called profit-as such funds come from deposits, where interest cost is higher than the interest earned in money market.
- **Investment Activity:** Banks have always been investing in government securities to satisfy the SLR requirement, but otherwise were not very active in investing in non-government securities. Income from risk-free investments was not considered to be significant. Banks have also been investing in strategic assets such as subsidiary and associate companies -- where returns on investment were only of secondary importance.
- **Profits for Contemporary Treasury:** Buying and selling foreign exchange to customers and interest on investments and money market lending, continues to be the primary source of income for bank treasuries.
- **Interest Arbitrage:** The Treasury operates across the currency and security markets; hence it is in a position to find where the interest differentials are in its favour. The Treasury may borrow in USD and lend in Rupee inter-bank market, or vice versa, depending on the domestic and foreign interest rates. Or, the Treasury may borrow in money market and invest short-term in commercial paper or T-bills.
- **Trading:** Trading is a speculative activity, where profits arise out of favourable price movements during the interval between buying and selling.
- **Treasury Products:** Treasury sells, in addition to foreign exchange services, derivatives and structured products to corporate customers. Large corporates



have an appetite for new products in order to hedge their currency and interest rate risks, and at times, also to reduce their interest costs. For instance, a company may buy from the Treasury a Forward Rate Agreement (FRA) to fix interest rate for commercial paper they plan to issue after 3 months.

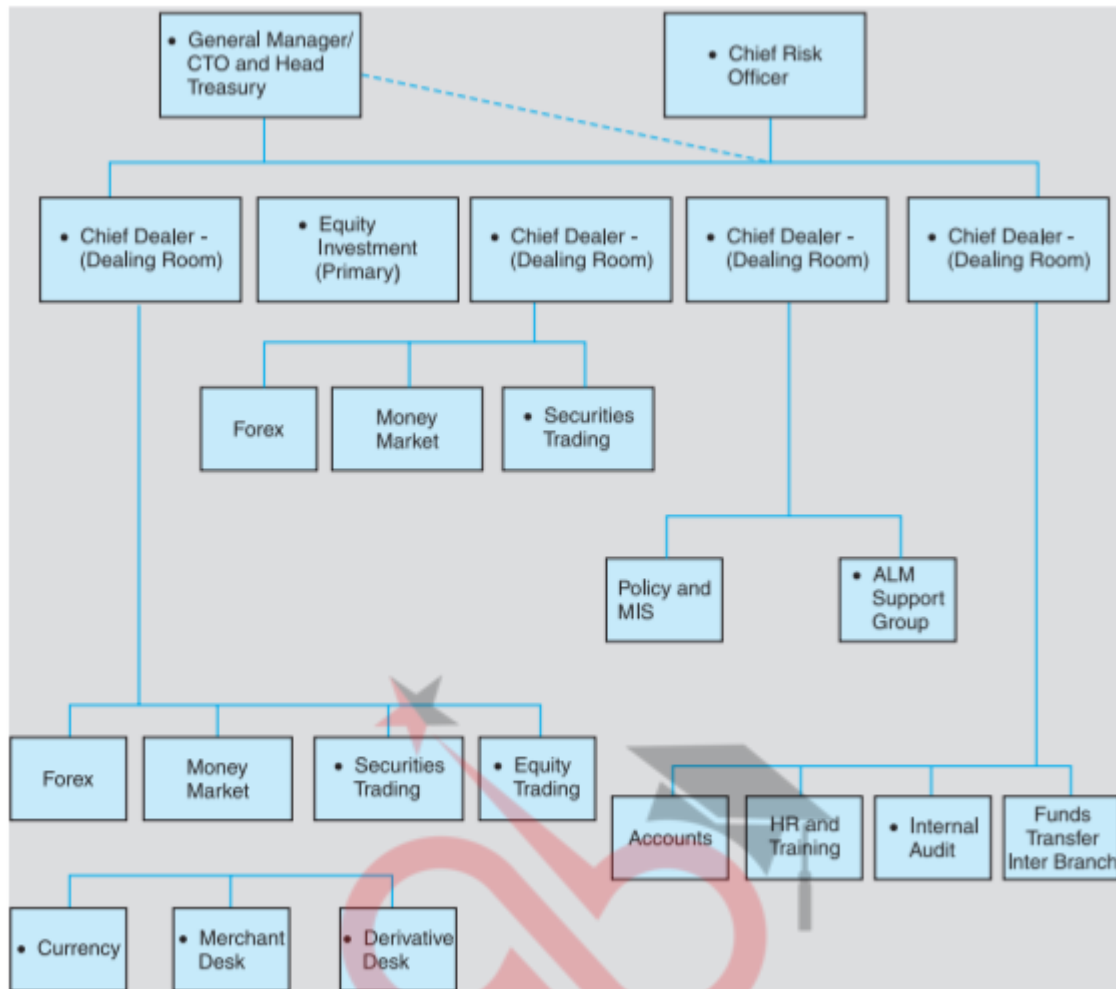
Organisation Of Treasury

The Treasury is organised either as a Department of the bank, or as a Specialised Branch under direct control of the bank's head office. In either case, the Treasury functions with a degree of autonomy, with its own accounting system. The branch status is preferred as the books of accounts of Treasury can be maintained independently (with its own P&L and GL accounts). On the other hand, the departmental form has the advantage of easier coordination with related departments at head office (such as Central Accounts and Planning Departments) in a line management.

The Treasury is segregated into three main divisions:

- The Dealing Room (or, Front Office),
- The Back Office (or, Treasury Administration) and
- The Mid-office (Risk Management).

Treasury will maintain an ALM Book, a Merchant Book and a trading Book, corresponding to its role in balance sheet management, merchant services and trading, across the currency and security markets.



CAIIB Paper 2 (BFM) Module C Unit 2: Treasury Products

Products of Foreign Exchange Market

- **Foreign exchange (forex) market is the most liquid market as free currencies (major currencies which are fully convertible, e.g. USD, EUR, GBP, JPY, CHF, etc.) can be readily bought and sold here.**
- Free currencies belong to those countries, whose markets are highly developed and where exchange controls are practically dispensed with. Currencies which are not fully convertible, have limited demand and may not be traded actively, but they may also enjoy high liquidity, depending on the size and stage of development of domestic market.



- For instance, Indian Rupee (INR) is only partially convertible, but the market for USD/INR is fairly liquid, owing to large domestic market and high growth rate of the economy.

Spot Trades

- **Currencies are mostly bought and sold in spot trades. The spot refers to settlement - payment and receipt of funds in respective currencies. Spot settlement takes place two working days from the trade date i.e. on the third day.** Currency may also be bought and sold, with settlement on the same day, i.e. today (TOD/Cash, ac, on the next day, i.e. tomorrow (TOM).
- All the exchange rates quoted on the screen, or in print, are for spot trade by default, unless otherwise mentioned. The TOD and TOM rates are generally quoted at a discount to the spot rate, ie. the rate is less favourable to the buyer of the currency.

Forward Rates

- **While spot trade refers to current transaction, forwards refer to purchase or sale of a currency on a future date. The exchange rates for forward sale or forward purchase are quoted today;** hence such transactions are referred to as forward contracts between the buyer and seller.
- Treasury may enter into forward contracts with customers (merchant business) or with banks (inter-bank market) as counterparties. Customers, i.e. importers, exporters and others who expect payments or receipts in foreign currency, cover their currency risk by entering into forward contracts with their respective banks.

Swaps

- **The spot and forward transactions are the primary products in foreign exchange market. A combination of spot and forward transactions, or a combination of two forward transactions is called a swap.**
- A swap transaction is also described as an exchange of cash flows. Buying USD (with Rupees) in the spot market and selling the same amount of USD in the forward market, or vice versa, constitutes a USD/INR swap. Similarly,



simultaneous purchase and sale of currency on two forward dates (forward to forward) is also a swap.

Investment of Foreign Exchange Surpluses

- **Inter-bank Loans:** Normally not exceeding one-year term, but mostly in over-night deposits with domestic and global banks, subject to pre-approved credit lines to the respective banks.
- **Short-term Investments:** Banks are permitted to invest overseas in short-term instruments of high credit quality, such as Treasury Bills/Gilts issued by foreign governments, commercial paper and other debt instruments issued by multilateral institutions and companies with AAA credit rating, subject to appropriate policy for the investments, approved at board level.
- **Nostro Accounts:** Where floating funds of the bank are parked, pending utilization/customer drawals. Nostro accounts are current accounts denominated in foreign currency, maintained by the banks with their correspondent banks in the home country of the currency (e.g. Japan for Yen, UK for Sterling, USA for Dollars etc.). Balances held in the Nostro accounts do not earn any interest.

Money Market Products

Money Markets refer to raising and deploying short-term resources, with maturity of funds generally not exceeding one year.

The inter-bank market is sub-divided into call money, notice money and term money market.

- **Call Money:** Refers to overnight placements, i.e. funds borrowed by banks need to be repaid on the next working day. Call money rates indicate liquidity available in the inter-bank market. Overnight Mumbai Interbank Offered Rate (O/N MIBOR) is the indicative rate for call money, fixed daily in the morning, used widely as a benchmark rate for overnight interest rate swaps.
- **Notice Money:** Under call money market, funds are transacted on an overnight basis, whereas under notice money market, funds are transacted for a period between 2 days and 14 days.



The prudential limits in respect of both outstanding borrowing and lending transactions in call/notice money market for scheduled commercial banks and co-operative banks and primary dealers (PDs) are as follows:

S.No.	Participant	Borrowing	Lending
1.	Scheduled Commercial Banks	On a daily average basis in a reporting fortnight, borrowing outstanding should not exceed 100% of capital funds (i.e., sum of Tier I and Tier II capital) of latest audited balance sheet. However, banks are allowed to borrow a maximum of 125% of their capital funds on any day, during a fortnight.	On a daily average basis in a reporting fortnight, lending outstanding should not exceed 25% of their capital funds. However, banks are allowed to lend a maximum of 50% of their capital funds on any day, during a fortnight.
2.	Co-operative Banks	Outstanding borrowings of State Co-operative Banks/District Central Co-operative Banks/Urban Co-operative Banks in call/notice money market, on a daily basis should not exceed 2.0% of their aggregate deposits as at end March of the previous financial year.	No Limit
3.	PDs	PDs are allowed to borrow, on daily average basis in a reporting fortnight, up to 225 per cent of their net owned funds (NOF) as at end-March of the previous financial year.	PDs are allowed to lend in call/ notice money market, on daily average basis in a reporting



			fortnight, up to 25 per cent of their NOF.
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- **Term Money:** Market is for placement of funds with banks for periods in excess of 14 days, but not exceeding 1 year. Typically term money placements range from 1 month to 6 months, and placements for longer periods are not very common.
- **Treasury Bills :** These are issued by Government of India through Reserve Bank for maturities of 91-days, 182 days and 364-days, for pre-determined amounts. The interest is by way of discount, so the bills are priced below Rs. 100.
- **Cash Management Bills (CMBs):** The Government of India, in consultation with the RBI, had decided to issue a new short-term instrument, known as Cash Management Bills , to meet the temporary cash flow mismatches of the Government. CMBs in India are non-standard, discounted instruments issued for maturities less than 91 days. CMBs have the generic character of Treasury Bills.

CMBs have the following features:

- The tenure, notified amount and date of issue of the proposed Cash Management Bills depends upon the temporary cash requirement of the Government. However, the tenure of the proposed Bills is less than 91 days.
- The Bills are issued at discount to the face value through auctions as in the case of the Treasury Bills.
- The announcement of the auction of the Bills is be made by the Reserve Bank of India through separate Press Release issued one day prior to date of auction
- The settlement of the auction is on T+1 basis.
- The Non-Competitive Bidding Scheme for Treasury Bills is not extended to CMBs.
- The Bills are tradable and qualify for ready forward facility (Repo, MSF and Reverse Repo facility). Investment in the proposed Bills is reckoned as an eligible investment in Government Securities by banks for SLR purpose. (Source: STCI Website)



Commercial Paper (CP)

This is a short-term debt market paper issued by corporates, with a minimum maturity of 7 days and maximum maturity of 1 year. Corporates, primary dealers and financial institutions are eligible to issue commercial paper. The issue of CP is governed by guidelines issued by RBI and market practices prescribed FIMMDA.

- **Buyback of CP:** Issuers can buyback the CP, issued by them to the investors, before maturity. Buyback of CP shall be through the secondary market and at prevailing market price. The CP should not be bought back before a minimum period of 7 days the date of issue.
- **Certificates of Deposit (CD):** This is a debt instrument similar to commercial paper, but is issued by banks or other eligible financial institution (FI) against deposit of funds. Unlike a deposit receipt, CD is a negotiable instrument and generally bears interest rates higher than regular deposits of the bank. It is also more expensive to the bank, as the CD attracts stamp duty, and is generally rated by an approved credit rating agency.
- **Repo:** Repo, in fact, is a securities transaction, but is used for lending and borrowing money market funds, for terms extending from 1 day to 1 year. Repo refers to sale of securities with a commitment to repurchase the same securities at a later date. RBI permits repo transactions in government securities and Corporate Debt Securities. The bank in need of funds, and having surplus securities (in excess of its SLR requirement), can enter into a repo transaction with a counterparty who could be another bank, primary dealer, or financial institution. Mutual funds and corporates are also now permitted to take part in the Repo market. The bank sells the securities to the counterparty, with an agreement to repurchase the same securities, say after 3 months, at a predetermined price.
- **Collateralised Borrowing and Lending obligation (CBLO):** CBLO is a money market instrument launched by Clearing Corporation of India Ltd. (CCIL). CBLO is essentially a Repo instrument, which is used not only by banks and primary dealers, but also by all the players like financial institutions, insurance companies, mutual funds and corporates who cannot access call money market. A borrower can deposit government securities with CCIL and borrow against



such securities (sell securities) from others who have surplus liquidity, subject to repayment (repurchase of securities) after a fixed term ranging from 1 day to 1 year - the underlying securities are represented by the CBLO, which is effectively the Repo instrument. CCIL acts as an intermediary for the Repo trade, so that the lenders and borrowers do not have counterparty risk.

- **Bill Rediscounting:** It provides another avenue for investment of money market funds. Treasury will discount bills of exchange of short-term nature (3 to 6 months) which are already discounted by other banks. The rediscounting is done at around money market rate and usually negotiated between the lending (rediscounting) bank and the borrowing (original discounting) bank.

Domestic and Global Markets

- **FII Investments:** Foreign investments flow in to India by way of foreign direct investment (long term project related investments), and portfolio investments (investment in stock market and debt market for short term gains). Foreign institutional investors who include investment banks and hedge funds invest mainly in portfolio investments. Private equity funds, corporate investors and other institutional investors with a long term view prefer direct investments in new projects/potentially profitable Indian companies
- **.ADR GDR Issues by Indian Companies:** Indian companies mobilize foreign currency resources by issue of equity in global markets. The holders of ADR/GDR (foreign investors) have an option to sell their holdings in domestic markets, and receive proceeds in foreign currency.
- **External Commercial Borrowings (ECB):** Indian companies can borrow in global markets, from banks (syndicated loans) or issue debt paper (floating rate notes, bonds etc.) within the guidelines issued by RBI, to fund their domestic/overseas projects.
- **Foreign Currency Funds of Banks:** Banks can use their FCNR deposit funds for investment in overseas markets as well as for domestic lending in foreign currency. They are also permitted to borrow/invest in overseas markets within a ceiling (presently 100% of Unimpaired Tier-1 capital, minimum USD 10 million), subject to guidelines issued by RBI. Banks generally use this facility to extend short term loans (usually with 6-month rollover).



- **Special Facilities to Exporters:** Exporters are permitted to hold export earnings in foreign currency accounts, designated as EEFC accounts. Banks are allowed to extend pre-shipment and post-shipment finance to exporters in foreign currency (PCFC and PSFC, respectively) in four major currencies. Banks can borrow foreign currency for the specific purpose of financing export credit (including discount of export bills).
- **Overseas Direct Investment (ODI):** RBI allows corporates to invest in joint ventures/subsidiary units overseas, from their Rupee resources subject to a cap based on their net worth (currently 4 times their net worth). This has allowed leading Indian business groups to expand globally by establishing companies near their markets or by acquiring other companies.
- **Free remittance Facility:** Individuals are now permitted to remit overseas freely, without RBI approval, up to USD 2,50,000 in a financial year under RBI's Liberalized Remittance Facility/Remittance, for any purpose (with a few exceptions like gambling and margin trading). They may choose to invest the funds in global debt, equity or simply spend the money for consumption purposes.

Securities Market Products

Investment Business is an important part of integrated treasury and is composed of buying and selling products available in Securities Market. Investment being a subject in itself, we would outline briefly the investment products available to bank treasuries and the subject is to be studied in detail by those who would like to specialise in investment business.

- **Government Securities** Government Securities are issued by Public Debt Office of Reserve Bank of India on behalf of Government of India. State governments also issue State Development Loans (in the form of Bonds) through RBI.
- Government Securities are sold through auctions conducted by RBI. The interest is paid on the face value of the bonds, generally ₹100 (expressed as percentage; minimum value of bonds is Rs. 10,000) at coupon rate, but the price of the bonds is determined in the auction conducted by RBI.
- RBI arrives at a cut-off price based on the bids submitted by subscribers, including banks and primary dealers (constituting demand for the bonds) and the price may be higher or lower than the face value of Rs. 100. Government securities are actively traded in secondary market; hence the price and yield of



the bonds would be constantly changing depending on the demand for bonds (which in turn depends on the liquidity available in the system).

Corporate Debt Paper

- Corporate debt paper refers to medium and long-term bonds and debentures issued by corporates and financial institutions, which are tradable. They are also referred to as non-SLR securities, to distinguish the corporate debt from government securities and other approved securities, which are eligible for meeting SLR requirement of banks. Tier-2 capital bonds issued by banks also fall under this category.
- Treasuries find corporate debt paper as an attractive investment, as yields on bonds and debentures are higher than the yield on government securities. Now that most of the corporate debt paper is issued in demat form, there is fairly active secondary market and the bonds issued by top corporates are highly liquid. (Banks are allowed to invest only in demat securities.)

Yields on corporate debt differs from instrument to instrument, depending on the credit quality, that is, higher the credit risk, higher is the yield. Most of the debt issues have credit rating by the credit rating agencies registered with SEBI. **These are:**

- The Credit Rating Information Services of India Limited (CRISIL)
- ICRA Limited
- Credit Analysis & Research Limited (CARE)
- Fitch Ratings India Private Limited
- Acuite Ratings & Research Limited
- Infomeric Valuation and Rating Private Limited (IVRPL) Global ratings are necessary if the debt paper is being issued

Debentures and Bonds

These are debt instruments, issued by corporate bodies, literally with a charge on specific assets. The literal meaning has been lost in practice and debentures and bonds may be issued with or without security. In practice, Company Law requires that debentures issued by companies are always secured (otherwise they will be subject to regulations pertaining to public deposits); hence debentures are generally secured by mortgage or with a floating charge or a lien on assets – although the latter security is more of a technical nature to give comfort to the investors.

Bonds may be issued with differing structures in order to enhance the marketability of the instruments as also to reduce the cost of issue.

The variations include:

- Structured obligations, with put/call or convertibility options,
- Zero coupon bonds - discounted securities issued at a price much lower than the face value,



- Floating rate bonds - coupon is linked to a benchmark which is reset periodically during the tenor of the security,
- Deep discount bonds – bonds sold at a discounted value where interest is paid only on maturity and not during the lock-in period.
- Instruments with step up coupons.
- Period bonds - sometimes issued with redemption in instalments over a period and sometimes with a premium on redemption in addition to coupon rate of interest.
- Collateralised obligations - bonds which are not secured by mortgages, but secured by stocks or other collateral
- Bonds with put call option and step up coupons, with the incentive of higher interest for nonredemption of the bonds in early stages.

Convertible Bonds

These are a mix of debt and equity, where the bond-holders are given an option to convert the debt into equity on a fixed date, or during a fixed period, and the conversion price is predetermined or worked out as per prevailing SEBI guidelines. If the issuer company's stock price is higher than the prefixed conversion price, the investors would prefer to convert the debt into equity. The benefit to the company is that there is no debt repayment and at the same time its equity base is strengthened. The coupon on convertible bond is generally lower than the coupon on non-convertible bond of similar credit standing. In case the bond is converted in to equity, the equity holdings of the existing shareholders get diluted.

- Equities Banks are permitted to invest in equities (shares of listed companies) subject to a limit on capital market exposure, set by RBI. Share capital of a company limited by shares can be of two kinds only, viz., equity share capital and preference share capital.

Equity share capital can be:

- With voting rights; or
- With differential rights as to dividend, voting or otherwise

Preference share capital is that capital which enjoys preferential right with respect to the dividend payment at a fixed rate and return of the capital on winding up of the company. **These can be further classified as:**

- **Cumulative or non-cumulative** - rights to claim dividend does not lapse when there is no profit or inadequate profit and is carried forward to the next year is cumulative preference shares while rights to claim dividend lapses in case of non-cumulative shares
- **Redeemable or irredeemable** - which can be redeemed, subject to fulfilment of certain conditions laid down in Section 55 of the Companies Act, 2013. Section 55(i) of the Companies Act 2013 prohibits the issue of any preference share that is irredeemable.



- **Participating or non-participating** - which have a right to participate in the surplus remaining after payment of equity capital in case of winding up of the company.
- **Convertible or non-convertible** - which would be convertible into or exchanged with equity shares at a later date, with or without the option of the preference shareholders

CAIIB Paper 2 (BFM) Module C Unit 3: International Equity and Debt Products

Regulatory Environment

Foreign Investment in India is regulated in terms of clause (b) sub-section 3 of section 6 and section 47 of the Foreign Exchange Management Act, 1999 (FEMA) read with Foreign Exchange Management (Transfer or Issue of a Security by a Person resident Outside India) Regulations, 2017 issued vide Notification No. FEMA 20(R)/2017-RB dated November 7, 2017.

'Foreign Direct Investment' (FDI) is the investment through capital instruments by a person resident outside India (a) in an unlisted Indian company; or (b) in 10 percent or more of the post issue paid-up equity capital on a fully diluted basis of a listed Indian company. If an existing investment by a person resident outside India in capital instruments of a listed Indian company falls to a level below 10 percent of the post issue paid-up equity capital on a fully diluted basis, the investment will continue to be treated as FDI.

Prohibited Sectors/Persons

Investment by a person resident outside India is prohibited in the following sectors:

- Lottery Business including Government/ private lottery, online lotteries.
- Gambling and betting including casinos.
- Chit funds (except for investment made by NRIs and OCIs on a non-repatriation basis).
- Nidhi company.
- Trading in Transferable Development Rights (TDRs).
- Real Estate Business or Construction of Farm Houses.
- Manufacturing of Cigars, cheroots, cigarillos and cigarettes, of tobacco or of tobacco substitutes. The prohibition is on manufacturing of the products mentioned and foreign investment in other activities relating to these products including wholesale cash and carry, retail trading etc. will be governed by the sectoral restrictions laid down in Regulation 16 of FEMA 20(R).
- Activities/ sectors not open to private sector investment viz., (i) Atomic energy and (ii) Railway operations.
- Foreign technology collaboration in any form including licensing for franchise, trademark, brand name, management contract is also prohibited for Lottery Business and Gambling and Betting activities.



Any investment by a person who is a citizen of Bangladesh or Pakistan or is an entity incorporated in **Bangladesh or Pakistan requires prior Government approval.**

A person who is a citizen of Pakistan or an entity incorporated in Pakistan can, only with the prior Government approval, invest in sectors/ activities other than defence, space, atomic energy and sectors/ activities prohibited for foreign investment.

Global Depository Receipts (GDRs)

GDRs represent Receipts that entitle the holder to convert into specified number of equity shares of Indian Company. The Receipts are issued by a Depository abroad and are traded in overseas markets. They are negotiable Receipts. The underlying shares, issued by the Indian Company, are held by an Indian Custodian on behalf of the Overseas Depository. They are denominated in foreign currency.

The exchange risk on the GDR is borne by the overseas investor. The equivalent number of equity shares is fixed as per pricing norms of SEBI. On issuance of GDR, the equity of the issuing company increases. Therefore, its Debt Equity Ratio is not adversely affected. Dividend is paid out in Rupees to the Depository. The Depository is entitled to voting rights as it holds the equity shares on behalf of the GDR holders.

Important Point

- A limited two way fungibility scheme is in operation by Government of India for ADRs/ GDRs.
- Under this, a SEBI registered Stock Broker can purchase the shares from the market for conversion into ADRs/ GDRs.
- Reissuance of ADR/GDR would be permitted to the extent of ADRs/GDRs that have been redeemed into underlying shares and sold in the domestic market.
- As such, the total outstanding shares under the GDR issuance remains at same level of original issue for which approval would have been obtained from Ministry of Finance.
- American Depository Receipts (ADRs) are traded only in US while GDRs are traded in other overseas markets too. Soliciting investors for ADRs can be done only from US and the disclosure standards of the document must comply with US GAAP accounting standards.

INDIAN DEPOSITORY RECEIPTS (IDRS)

- Issue of IDRs Companies incorporated outside India may issue IDRs through a Domestic Depository, to a person resident in India and a person resident outside India. The issue of IDRs should comply with the Companies (Registration of Foreign Companies) Rules, 2014 and the Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009;
- Any issue of IDRs by financial/ banking companies having presence in India, either through a branch or subsidiary, shall require prior approval of the sectoral regulator(s);
- IDRs shall be denominated in Indian Rupees only;



- The proceeds of the issue of IDRs shall be immediately repatriated outside India by the companies issuing such IDRs. Purchase/Sale of IDRs An FPI or an NRI or an OCI may purchase, hold or sell IDRs NRIs or OCIs may invest in the IDRs out of funds held in their NRE/ FCNR(B) account, maintained in accordance with the Foreign Exchange Management (Deposit) Regulations, 2016. There would be an overall cap of USD 5 billion for raising of capital by issuance of IDRs by eligible foreign companies in Indian markets. This limit would be monitored by SEBI

Purchase/Sale of IDRs

An FPI or an NRI or an OCI may purchase, hold or sell IDRs NRIs or OCIs may invest in the IDRs out of funds held in their NRE/ FCNR(B) account, maintained in accordance with the Foreign Exchange Management (Deposit) Regulations, 2016. There would be an overall cap of USD 5 billion for raising of capital by issuance of IDRs by eligible foreign companies in Indian markets. This limit would be monitored by SEBI

Transfer, Redemption and Two-Way Fungibility of IDRs

Redemption/ conversion of IDRs into underlying equity shares of the issuing company shall comply with the Foreign Exchange Management (Transfer or Issue of any Foreign Security) Regulations, 2004. IDRs shall not be redeemable into underlying equity shares before the expiry of one year from the date of issue.

Limited two way fungibility of IDRs is permissible.

- Listed Indian companies may either sell or continue to hold the underlying shares subject to compliance with the Foreign Exchange Management (Transfer or Issue of any Foreign Security) Regulations, 2004.
- Indian Mutual Funds, registered with SEBI may either sell or continue to hold the underlying shares subject to compliance with the Foreign Exchange Management (Transfer or Issue of any Foreign Security) Regulations, 2004.
- Other persons resident in India including resident individuals are allowed to hold the underlying shares only for the purpose of sale within a period of 30 days from the date of conversion of the IDRs into underlying shares. The FEMA provisions shall not apply to the holding of the underlying shares, on redemption of IDRs by the FPIs.

External Commercial Borrowings

External Commercial Borrowings are commercial loans raised by eligible resident entities from recognised non-resident entities and should conform to parameters such as minimum maturity, permitted and nonpermitted end-uses, maximum all-in-cost ceiling, etc. The comprehensive guidelines are collectively referred to as ECB Framework, as detailed in Master Direction RBI/FED/2018-19/67 dated 26th March 2019, updated up to 12th April 2021.



No	Description	ECB in Foreign Currency	ECB in Indian Rupee
1	Currency	Any freely convertible Foreign Currency	Indian Rupee
2	Instrument Type	Loans including bank loans; floating/ fixed rate notes/ bonds/ debentures (other than fully and compulsorily convertible instruments); Trade credits beyond 3 years; FCCBs; FCEBs and Financial Lease.	Loans including bank loans; floating/ fixed rate notes/bonds/ debentures/ preference shares (other than fully and compulsorily convertible instruments); Trade credits beyond 3 years; and Financial Lease. Also, plain vanilla Rupee denominated bonds issued overseas, which can be either placed privately or listed on exchanges as per host country regulations.
3	Eligible Borrower	All entities eligible to receive FDI. Further, the following entities are also eligible to raise ECB: i. Port Trusts; ii. Units in SEZ; iii. SIDBI; and iv. EXIM Bank of India.	a) All entities eligible to raise FCY ECB; and b) Registered entities engaged in micro-finance activities, viz., registered Not for Profit companies, registered societies/ trusts/ cooperatives and Non-Government Organisations.
4	Recognised Lenders	The lender should be resident of FATF or IOSCO compliant country, including on transfer of ECB. However, a) Multilateral and Regional Financial Institutions where India is a member country will also be considered as recognised lenders; b) Individuals as lenders can only be permitted if they are foreign equity holders or for subscription to bonds/debentures listed abroad; and c) Foreign branches / subsidiaries of Indian banks are permitted as recognised lenders only for FCY ECB (except FCCBs and FCEBs). Foreign branches / subsidiaries of Indian banks, subject to applicable	

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		prudential norms, can participate as arrangers/underwriters/market-makers/traders for Rupee denominated Bonds issued overseas. However, underwriting by foreign branches/subsidiaries of Indian banks for issuances by Indian banks will not be allowed.	
5	Minimum Average Maturity Period (MAMP)	MAMP for ECB will be 3 years. Call and put options, if any, shall not be exercisable prior to completion of minimum average maturity. However, for the specific categories mentioned below, the MAMP will be as prescribed therein:	
		Sr.No.	Category
		(a)	ECB raised by manufacturing companies up to USD 50 million or its equivalent per financial year.
		(b)	ECB raised from foreign equity holder for working capital purposes, general corporate purposes or for repayment of Rupee loans.
		(c)	ECB raised for (i) working capital purposes or general corporate purposes (ii) on-lending by NBFCs for working capital purposes or general corporate purposes
		(d)	ECB raised for (i) repayment of Rupee loans availed domestically for capital expenditure (ii) on-lending by NBFCs for the same purpose
		(e)	ECB raised for (i) repayment of Rupee loans availed domestically for purposes other than capital expenditure (ii) on-lending by NBFCs for the same purpose
		For the categories mentioned at (b) to (e) – (i) ECB cannot be raised from foreign branches / subsidiaries of Indian banks (ii) the prescribed MAMP will have to be strictly complied with under all circumstances.	
6	All-in-Cost ceiling per annum	Benchmark Rate plus 550 bps spread: For existing ECBs linked to LIBOR whose benchmarks are changed to ARR. Benchmark rate plus 500 bps spread: For new ECBs.	Benchmark Rate + 450 basis points



		All-in-cost ceiling has been temporarily increased by 100 bps for ECBs raised till December 31, 2022. The enhanced all-in-cost ceiling shall be available only to eligible borrowers of investment grade rating from Indian Credit Rating Agencies (CRAs). Other eligible borrowers may raise ECB within the existing all-in-cost ceiling as hitherto.	
7	Other Costs	Prepayment charge/ Penal interest, if any, for default or breach of covenants, should not be more than 2 per cent over and above the contracted rate of interest on the outstanding principal amount and will be outside the all-in-cost ceiling.	
8	Negative List for End Use	The negative list, for which the ECB proceeds cannot be utilised, would include the following: a) Real estate activities. b) Investment in capital market. c) Equity investment. d) Working capital purposes, except in case of ECB mentioned at (b) and (c) above. e) General corporate purposes, except in case of ECB mentioned at (b) and (c) above. f) Repayment of Rupee loans, except in case of ECB mentioned at (d) and (e) above. g) On-lending to entities for the above activities, except in case of ECB raised by NBFCs as given at (c), (d) and (e) above.	
9	Exchange Rate	Change of currency of FCY ECB into INR ECB can be at the exchange rate prevailing on the date of the agreement for such change between the parties concerned or at an exchange rate, which is less than the rate prevailing on the date of the agreement, if consented to by the ECB lender.	For conversion to Rupee, the exchange rate shall be the rate prevailing on the date of settlement.
10	Hedging Provisions	The entities raising ECB are required to follow the guidelines for hedging issued, if any, by the concerned sectoral or prudential regulator in respect of foreign currency exposure. Infrastructure space companies shall have a	Overseas investors are eligible to hedge their exposure in Rupee through permitted derivative products with AD Category I banks in India. The investors can also access the domestic market through branches / subsidiaries of



	<p>Board approved risk management policy. Further, such companies are required to mandatorily hedge 70 per cent of their ECB exposure in case the average maturity of the ECB is less than 5 years. The designated AD Category-I bank shall verify that 70 per cent hedging requirement is complied with during the currency of the ECB and report the position to RBI through Form ECB 2. The following operational aspects with respect to hedging should be ensured:</p> <p>a. Coverage: The ECB borrower will be required to cover the principal as well as the coupon through financial hedges. The financial hedge for all exposures on account of ECB should start from the time of each such exposure (i.e. the day the liability is created in the books of the borrower).</p> <p>b. Tenor and rollover: A minimum tenor of one year for the financial hedge would be required with periodic rollover, duly ensuring that the exposure on account of ECB is not unhedged at any point during the currency of the ECB.</p> <p>c. Natural Hedge: Natural hedge, in lieu of financial hedge, will be considered only to the extent of offsetting projected cash flows / revenues in matching currency, net of all other projected outflows. For this purpose, an</p>	Indian banks abroad or branches of foreign banks with Indian presence on a back to back basis.
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		ECB may be considered naturally hedged if the offsetting exposure has the maturity/cash flow within the same accounting year. Any other arrangements/ structures, where revenues are indexed to foreign currency will not be considered as a natural hedge.	
11	Change of Currency of Borrowing	Change of currency of ECB from one freely convertible foreign currency to any other freely convertible foreign currency as well as to INR is freely permitted.	Change of currency from INR to any freely convertible foreign currency is not permitted.

Limit and leverage:

- Under the aforesaid framework, all eligible borrowers can raise ECB up to USD 750 million or equivalent per financial year under the automatic route.
- Further, in case of FCY denominated ECB raised from direct foreign equity holder, ECB liability-equity ratio for ECB raised under the automatic route cannot exceed 7:1.
- However, this ratio will not be applicable if the outstanding amount of all ECB, including the proposed one, is up to USD 5 million or its equivalent. Further, the borrowing entities will also be governed by the guidelines on debt equity ratio, issued, if any, by the sectoral or prudential regulator concerned.
- The automatic route limit stands increased from USD 750 million or equivalent to USD 1.5 billion or equivalent. This relaxation is available for ECBs to be raised till December 31, 2022.

Issuance of Guarantee, etc. by Indian banks and Financial Institutions:

Issuance of any type of guarantee by Indian banks, All India Financial Institutions and NBFCs relating to ECB is not permitted. Further, financial intermediaries (viz., Indian banks, All India Financial Institutions, or NBFCs) shall not invest in FCCBs/ FCEBs in any manner whatsoever.

Trade Credits

Trade Credits (TC) refer to the credits extended by the overseas supplier, bank, financial institution and other permitted recognised lenders for maturity, as prescribed in this framework, for imports of capital/ non-capital goods permissible under the Foreign Trade Policy of the Government of India. Depending on the source of finance, such TCs include suppliers' credit and buyers' credit from recognised lenders. TC for imports into India can be raised in any freely convertible foreign currency (FCY denominated TC) or Indian Rupee (INR denominated TC), as per the framework given in the table ahead:



Sr. No.	Parameters	FCY denominated TC	INR denominated TC
i	Forms of TC	Buyers' Credit and Suppliers' Credit.	
ii	Eligible borrower	Person resident in India acting as an importer.	
iii	Amount under automatic route	Up to USD 150 million or equivalent per import transaction for oil/gas refining & marketing, airline and shipping companies. For others, up to USD 50 million or equivalent per import transaction.	
iv	Recognised lenders	1. For suppliers' credit: Supplier of goods located outside India. 2. For buyers' credit: Banks, financial institutions, foreign equity holder(s) located outside India and financial institutions in IFSCs located in India. Note: Participation of Indian banks and non-banking financial companies (operating from IFSCs) as lenders will be subject to the prudential guidelines issued by the concerned regulatory departments of the Reserve Bank. Further, foreign branches/subsidiaries of Indian banks are permitted as recognised lenders only for FCY TC.	
v	Period of TC	The period of TC, reckoned from the date of shipment, shall be up to three years for import of capital goods. For non-capital goods, this period shall be up to one year or the operating cycle whichever is less. For shipyards / shipbuilders, the period of TC for import of non-capital goods can be up to three years.	
vi	All-in-cost ceiling per annum	¹² Benchmark Rate plus 350 bps spread: For existing TCs linked to LIBOR whose benchmarks are changed to ARR. Benchmark rate plus 300 bps spread: For new TCs.	Benchmark rate plus 250 bps spread.
vii	Exchange rate	Change of currency of FCY TC into INR TC can be at the exchange rate prevailing on the date of the agreement between the parties concerned for such change or at an exchange rate, which is less than the rate prevailing on the date of agreement, if consented to by the TC lender.	For conversion to Rupee, exchange rate shall be the rate prevailing on the date of settlement.
viii	Hedging provision	The entities raising TC are required to follow the guidelines for hedging, if any, issued by the concerned sectoral or prudential regulator in respect of foreign currency exposure. Such	The overseas investors are eligible to hedge their exposure in Rupee through permitted derivative products with AD Category I banks in India. The investors can also

		entities shall have a board approved risk management policy.	access the domestic market through branches / subsidiaries of Indian banks abroad or branches of foreign banks with Indian presence on a back to back basis.
ix	Change of currency of borrowing	Change of currency of TC from one freely convertible foreign currency to any other freely convertible foreign currency as well as to INR is freely permitted.	Change of currency from INR to any freely convertible foreign currency is not permitted.



Rupee Denominated Bonds

RBI, vide circular dated November 3, 2016, permitted banks to issue Rupee Denominated Bonds overseas for the following purposes. These shall be subject to all applicable prudential norms and FEMA guidelines.

- Perpetual Debt Instruments (PDI) qualifying for inclusion as Additional Tier 1 capital under the extant Basel III Capital Regulations
- Debt capital instruments qualifying for inclusion as Tier 2 capital under the extant Basel III Capital Regulations
- Financing of infrastructure and affordable housing

The “eligible amount” for purpose of issue of PDIs in foreign currency shall be, as on March 31 of the previous financial year, the higher of:

- 1.5% of Risk Weighted Assets (RWAs) and
- Total Additional Tier 1 capital Not more than 49% of the “eligible amount” can be issued in foreign currency and/or in rupee denominated bonds overseas. However, RDBs issued have to be excluded from the limit for investments by FPIs in corporate bonds.

CAIIB BFM Module C Unit 4 : Funding and Regulatory Aspects

Reserve Assets: CRR and SLR

The Reserve Bank of India is the Note Issuing Authority, that is, the currency in circulation is directly controlled by RBI. However, the currency is only cash component of money in circulation, and in that, it is only a small part of the total money. The cash deposited in banks in turn is lent by the banks, which increases supply of money. If part of the money, so borrowed, is held in a deposit account with the bank, the chain of relending and creating new deposits will continue. It is not only cash, but near cash instruments like cheques and credit cards also add to the money supply (e.g. money spent on credit card is deposited with a bank, adding further money). Creation of money in **this fashion is called the money multiplier effect.**

Main components of DTL are:

- Demand deposits (held in current and savings accounts, margin money for LCs, overdue fixed deposits etc.).
- Time deposits in fixed deposits, recurring deposits, reinvestment deposits etc.).
- Overseas borrowings.
- Foreign outward remittances in transit (FC liabilities net of FC assets).



- Other demand and time liabilities (accrued interest, credit balances in suspense account etc.).

Scheduled Commercial Banks are exempted from maintaining CRR on the following liabilities:

- Liabilities to the banking system in India as computed under clause (d) of the explanation to Section 42(1) of the RBI Act, 1934.
- Credit balances in ACU (US\$) Accounts.
- Demand and Time Liabilities in respect of their Offshore Banking Units (OBUs).
- The eligible amount of incremental FCNR (B) and NRE deposits of maturities of three years and above from the base date of July 26, 2013, and outstanding as on March 7, 2014, till their maturities/ pre-mature withdrawals.
- Minimum of Eligible Credit (EC) and outstanding Long term Bonds (LB) to finance Infrastructure Loans and affordable housing loans.

The following liabilities are excluded from the CRR stipulation:

- Paid-up capital, reserves, retained profits, refinance availed from RBI, and apex financial institutions like NABARD and SIDBI.
- Net income tax provision.
- Claims received from DICGC, ECGC, Insurance Company (Towards ad-hoc settlement), Court Receiver etc.
- Liabilities arising on account of utilization of limits under Bankers Acceptance Facility.
- District Rural Development Agency (DRDA) subsidy of Rs. 10,000/- kept in Subsidy Reserve Fund account in the name of Self Help Groups.
- Subsidy released by NABARD under Investment Subsidy Scheme for Construction/Renovation/ Expansion of Rural Godowns.
- Net unrealized gain/loss arising from derivatives transaction under trading portfolio; Income flows received in advance such as annual fees and other charges which are not refundable.
- Bill rediscounted by a bank with eligible financial institutions as approved by RBI.

The SLR is to be maintained in the form of the following assets:

- Cash balances (excluding balances maintained for CRR).
- Gold (valued at price not exceeding current market price).
- Approved securities valued as per norms prescribed by RBI,

Liquidity Adjustment Facility (LAF)

The Liquidity Adjustment Facility is the principal operating instrument of Reserve bank's monetary policy. While CRR and SLR help changes in the stance of monetary



policy on a more permanent basis LAF is used to monitor day-to-day liquidity in the market.

LAF refers to RBI lending funds to banking sector through Repo instrument. RBI also accepts deposits from banks under Reverse Repo. The process of purchase and sale of government securities, with agreement to sell-back or repurchase respectively, within a predetermined period, has already been referred to in the previous chapter. While banks can engage in repo transactions with other banks/institution, LAF refers exclusively to repo transactions with RBI. **Bids have to be submitted for a minimum amount of Rs. 5 crore and in multiples of Rs. 5 crore thereafter.**

In order to help banks, to wade through the liquidity constraints, RBI has taken the following measures on February, 3, 2015:

- Continue to provide liquidity under overnight repos (fixed rate repo) of 0.25% of bank-wise NDTL at the LAF repo rate.
- Introduced a new window called Variable Rate Repo. Under this window liquidity would be provided for 7 days, 14 days and 28 days. This is also called as Term Repos. The limit fixed by RBI, is under this window, is 0.75% of NDTL of the banking system. Interested banks can avail funds under this route by quoting a rate which should be equal to or above the Repo Rate. The bank which has quoted the highest yield stands a better chance of getting funds under this window.
- RBI has also phased out the Export Credit Refinance facility.

Payment and Settlement Systems

Payment and settlement systems play a vital role in the development of financial markets. The important reforms relevant to treasury operations include the following:

- **Real Time Gross Settlement System (RTGS)** has been fully activated by RBI from October 2004. RTGS is a paperless clearing system, where settlements are on gross basis, rather than day-end net settlement of cheques in a clearing house. All inter-bank payments and customer remittances (currently minimum Rs. 2 lakhs) are settled instantly under the RTGS. Banks' accounts with all the branch offices of RBI are also integrated. Almost all the urban centres of public and private sector banks are already participating in the RTGS.
- **Negotiated Dealing System** is an electronic platform for facilitating dealing in government securities and money market instruments. RBI had introduced the NDS in February 2002, in order to achieve a) automatic electronic reporting and settlement process b) auctions on electronic platform and c) a trading platform for trading in Government securities on a negotiated basis (telephone based



trading), as well as quote-driven mechanism. The NDS membership is open to banks, primary dealers, mutual funds, financial institutions and insurance companies, who maintain SGL account with RBI, and also those who have constituent SGL accounts through banks/depository institutions.

- **FX Clear** is a forex dealing system developed by CCIL for foreign exchange transactions (USD) INR as well as cross currencies). Currently CCIL is providing straight through processing (STP) for USD/INR, and CCIL as an intermediary settles inter-bank USD/Rupee as well as cross currency deals on net basis, so that individual banks need not exchange payments for each transaction.
- **Depository Institutions** like NSDL (National Securities Depository Ltd.) and CSDL (Central Securities Depository Ltd.) provide delivery vs. payment (DVP) for secondary market deals in equity and debt paper. The securities and funds are cleared by their respective clearing houses. Since the funds transfer and securities transfer takes place between the buyer and seller on the electronic platform simultaneously, the settlement risk is eliminated.
- **NEFT and on-line Payments** All inter-bank and intra-bank remittances can now be effected on the same day by electronic funds transfer using the National Electronic Funds transfer system introduced by RBI. RBI has developed Structured Financial Messaging System (SFMS) - similar to SWIFT adopted by banks for international funds transfer etc. - where interbank transfers are sorted out and cleared by National Clearing Cell of RBI. Banks which are fully computerized can access any account at any branch on line and debit/credit funds, instantly for inter-bank transfers, without using paper.

CAIIB BFM Module C Unit 5: Treasury Risk Management

Supervision and Control Of Treasury

Treasury Risk Management

Treasury risk management assumes importance for two reasons:

- The nature of treasury activity is such that profits are generated out of market opportunities and market risk is present at every step;
- Treasury is also responsible for balance sheet management, i.e. market risk generated by other operation departments. We will deal with the first aspect a little more elaborately.

Concern for Treasury Risks

Bank management is highly sensitive to treasury risk, as the risk arises out of high leverage the treasury business enjoys. The risk of losing capital is much higher than, say, in the credit business. Bank's capacity to extend loans is limited by the resources at its command, that is, deposits and other borrowings. In case of a loan, the risk is limited to the principal and interest, which may be lost, fully or partly, over a period of time.



Most of the loans are also secured by tangible assets. The risk is 'capped' by the amount invested in the loan asset. Potential loss in loan assets is known as credit risk.

Treasury on the other hand, has a very low funding requirement, which we call as high leverage. **For instance, treasury can buy and sell foreign exchange of value Rs. 100 crore without any direct investment of funds**, except for allocation of risk capital as per capital adequacy requirement of RBI. At the same time, an adverse movement of the **exchange rate by Re. 1 may result in a loss of over Rs. 1 crore to the bank** - which is a straight loss of capital.

Treasury risks are primarily managed by conventional control and supervisory measures, mostly in the nature of preventive steps, which may be divided into three parts:

- Organisational Controls
- Exposure Ceiling
- Limits on trading positions and stop-loss limits

Organisational Controls

The organisational controls refer to the checks and balances within the system. Treasury is basically divided into three parts: the front office, back office and the Mid office.

Internal Controls

The most important of the internal controls are position limits and stop loss limits. The limits are imposed on the dealers who trade in foreign exchange and securities. Trading is a high risk area, vulnerable to sudden market fluctuations and the limits imposed by management are preventive measures to avoid or contain losses in adverse market conditions.

The trading limits in the context of foreign exchange are of three kinds:

- limits on deal size
- limits on open positions and
- stop-loss limits. All limits are expressed in absolute amounts.

Exposure Ceiling Limits

Exposure limits are kept in place to protect the bank from credit risk/counter-party risk. Credit risk in Treasury may be split into default risk and settlement risk. Default risk is typically when the bank lends in the money market (mainly to other banks), the borrowing bank may fail to repay the amount on due date. Similar risk is there in repo transactions also.

Market Risk and Credit Risk

While describing the conventional controls above, we have frequently referred to default by a counterparty and market movements. In that we are indirectly referring to two



types of risks faced by the bank in a spheres of its activity. One is credit risk, or the risk of losing funds invested together with interest, fully or partly, on account of failure of the counterparty to honour its obligations. Then there is market risk where the price of a security, interest rates or exchange rates move in such a way that the value of an asset diminishes or the liability under an existing obligation increases.

Thus market risk is a confluence of liquidity risk, interest rate risk, exchange rate risk, equity risk and commodity risk. Considering all these factors, the Bank for International Settlements (BIS) defines market risk as "the risk that the value of on- or off-balance sheet positions will be adversely affected by movements in equity and interest rate markets, currency exchange rates and commodity prices". The market risk is also known as price risk.

The three main components of market risk are liquidity risk, interest rate risk and currency risk.

Liquidity Risk:

- **Liquidity risk refers to cash flow gaps which could not be bridged. Let us assume that the Treasurer has borrowed in call market and purchased a 5-year government security, assuming the bond prices would go up next day and he can sell the security with profit.**
- Let us further assume that the bond market collapses next day and the Treasurer could not dispose off the security. Though the bank is solvent, the treasury has faced liquidity risk, as he needs to borrow funds in the market at whatever cost, if he has to avoid default or delay in repayment of the call borrowings. Liquidity risk thus translates into interest rate risk.

Interest Rate Risk:

- **Interest rate risk refers to rise in interest costs (of a liability) or fall in interest earnings (from assets) eroding the business profits.**
- Treasury deals in financial assets, value of which is highly sensitive to interest rate movements. A steep rise in interest rates may cause a crash of bond market, eroding the value of securities held by Treasury. If liquidity is not planned ahead, Treasury may need to borrow at a higher cost to meet its obligations.

Currency Risk:

- **Currency risk or exchange rate risk is also a manifestation of interest rate risk, although for the sake of clarity, it is identified as a component of market risk.** Interest rates are influenced by factors like domestic money supply, rate of inflation, activity in debt and equity markets etc. which also influence exchange rates.
- However, exchange rates are influenced more by external trade, global interest rates and capital flows. As globalization progresses, exchange rates and interest



rates are increasingly influenced by similar factors, most prominent being GDP growth rate, global interest rates and capital flows.

Risk Measures: VaR and Duration

The movement in currency prices or security prices cannot be accurately predicted and the uncertainty associated with their price movements gives rise to price risk. At the same time the treasurer should have some idea of the inherent risks and the way they would affect his positions. This quest for risk solutions, led to two important measures of risk, known as value at risk and duration.

Value at Risk (VaR)

VaR is a statistical measure indicating the worst possible movement of a market rate, over a given period of time, under normal market conditions, at a defined confidence level. For instance, an overnight VaR of 45 bps for USD/INR rate at 95% confidence level implies that there is only 5% chance of the rate worsening beyond 45 bps next day. If today's spot rate is Rs. 64.00, tomorrow the worst possible rate for exports can be assumed to be Rs. 63.55. With reasonable safety - there is only 5% chance of the rate being worse than Rs. 63.55.

Similarly, if overnight VaR of 1-year G-Sec yield is 0.35%, current yield of 7.75% is expected to fall/ rise by not more than 0.35% by tomorrow. In the worst-case scenario, a prospective buyer of security may therefore expect the yields to fall to $7.75\% - 0.35\% = 7.40\%$ by next day, while a seller of security may expect rise in the yield to $7.75\% + 0.35\% = 8.10\%$ by next day. At 95% confidence level, there is only 5% possibility of adverse change being higher than 0.35% (at 99% confidence level, there is only 1% possibility of loss being higher than VaR).

There are a number of ways, with technical variations, to calculate the VaR. Three popular approaches to VaR are:

- Parametric approach, based on sensitivity of various risk components. This approach is also called as Correlation approach or Variance-Co-Variance approach. For instance, say the price of a stock depends on its sensitivity to index changes, to interest rate changes and to changes in the exchange rates - all these components are built into a complex formula to arrive at the VaR of the stock. This approach can best be explained as follows. VaR is derived under this approach from a statistical formula based on volatility of the market. Volatility is the standard deviation from the mean of, say, USD/INR exchange rates (or any other asset prices) observed over a period. Volatility assumes a normal distribution curve and the no. of standard deviations from the mean denote the probability of reaching a target level. The volatility multiplied by the no. of standard deviations required for a given confidence level results in the VaR.



- The second approach is based on Monte Carlo simulation, where a number of scenarios are generated at random and their impact on the subject (stock price/exchange rate etc.) is studied.
- The third approach is to use historical data to arrive at the probable loss. The historical data may simply be time series of data prevailing over a period (e.g. daily USD/INR exchange rate for last 90 days), or an index of changes (e.g. change in price over previous day). Progressive weights may also be assigned to the data, as more recent information has greater impact on future price movements.

Duration

- Duration is a measure widely used in investment business, though the concept of duration is applicable to all assets and liabilities, where interest rate risk is present. To understand Duration, we need to be familiar with the concept of YTM or Yield to Maturity of a bond.
- Treasury invests in government securities and non-government securities of various descriptions, viz. bills, bonds and debentures - hereafter referred to as bonds. The bonds carry a coupon rate of interest which is payable on 100% value of the bond (par value, as at the time of issue). However, the bonds may be traded at a discount (<Rs. 100) or at a premium (>Rs. 100), depending on the interest rate trends in the market. The traded price is based on the market rate of interest for residual period of the bond and is constantly changing in the market.

Use of Derivatives In Risk Management

Derivatives are financial contracts which derive their value based on an underlying market for a commodity or financial product. Derivatives are used to protect treasury transactions from market risk. Derivatives are also useful in managing balance sheet risk i.e. asset liability management. For instance, if an asset is highly sensitive to interest rate changes, and if we have a view that the rates are likely to rise, we can swap fixed rate of interest into floating rate by entering into an interest rate swap. Similarly exchange rate risk can be avoided by entering into a forward rate contract or option contract. We will study derivatives in the next chapter in greater detail.

CAIIB BFM Module C Unit 6: Derivative Products

Derivatives and The Treasury

Derivatives are market products widely used by bank treasuries. Treasury uses derivatives chiefly

- To manage risk, including ALM risks,



- To cater to the requirements of the clients and more particularly the corporate customers, and
- To trade, i.e. to take a trading position in derivative products. While cross currency derivatives existed for long, Rupee derivatives are of fairly recent origin, and use of certain derivative products is still regulated by RBI.

Derivative Products

- **A derivative is a financial contract, specifying an underlying which is a price or rate or an index related to a financial product or market, based on a notional amount and/or specific payment provisions,** with clear settlement terms. By definition, derivatives always refer to a future price and the value of derivative depends on spot market.

OTC and Exchange Traded Products

Banks may structure a derivative product to suit the requirement of an individual client -- based on his risk appetite, size of transaction and maturity requirements.

For instance, a bank may offer to a client a forward contract or option for sale of USD on a future date, for whatever period or amount desired by the client. The derivative products that can be directly negotiated and obtained from banks and investment institutions are known as Over-the-Counter (OTC) products.

OTC products are different from exchange traded products in the following respects:

OTC	Exchange Traded
OTC products are offered by banks and financial institutions (need to be authorized banks in India)	Futures contracts are traded only on organized futures exchanges
Contract date, amount and terms as desired by the client	Size of contract is standardized, with pre-set settlement dates for specific terms (eg one month, \$1000 contract settled last Wednesday of every month against INR)
Price is quoted by the Bank, adding a margin to market quote	Transparent pricing, based on screen-based order matching system



Security (cash margin, charge on assets etc.), at bank's discretion, based on client status	The Exchange collects daily cash margin based on MTM value of the contract
Counter-party risk (bank risk is present but it is a remote risk.)	No counter-party risk, as Exchange is the counter party which manages the risk by margining system
Settlement is mostly by physical delivery (net settlement only in trading positions / cancellations)	Mostly net settlement by cash (physical delivery may be insisted upon in commodity futures)
Mostly used for hedging underlying risk	Mostly used for trading and speculation.

Bank Treasuries and corporate customers of the bank mostly use OTC products such as forward contracts, options and swaps. Only larger banks, which are market makers, cover their residual position in Futures traded in the exchanges. Where futures exchange is active, OTC derivative products largely reflect exchange traded prices, even though the volume of trade in OTC products is much larger than that of the Exchange Traded Products.

Forwards, Options, Futures and Swaps

In India, derivatives are used for hedging underlying currency, interest rate and commodity risks. Trading in currency and interest rate derivatives is restricted to authorized banks, except in futures market, where individuals, corporates and other entities can freely participate (subject to restrictions on non-resident entities). We shall confine this discussion to currency and interest rate derivatives only.

Derivatives are basically of three kinds:

- Forward contracts;
- Options, and
- Swaps

Futures are part of forwards, where execution of contract at a fixed rate is obligatory through an exchange. We will study futures later in the section.



Forward Contract

- **Forward contract is a contract to deliver foreign currency on a future date at a fixed exchange rate.** This is an OTC product where the counterparty is always a bank. An exporter enters into a forward sale contract of his export proceeds denominated in USD

Options

- **Options refer to contracts where the buyer of an option has a right but no obligation to exercise the contract. Options are either put options or call options.** Call option gives a right to the holder to buy an underlying product (currency/bonds/commodities) at a prefixed rate on a specified future date.
- Put option gives a similar right to the holder to sell the underlying at a prefixed rate on a specified future date or during a specified period. The prefixed rate is known as the strike price, which is decided by the customer (Option Holder). The specified time is known as expiry date.

Some of the important features of options are:

- The buyer of an option has the right (but no obligation) to exercise the option at strike price, irrespective of market price prevailing on the expiry date. Hence his profit potential is unlimited. The seller of the option is obliged to buy/sell to the holder of the option at the strike price, irrespective of market price; the option-seller's potential loss is therefore unlimited.
- The option is based on an amount which is only notional, as only difference in rates is exchanged in net settlement. The price of an option is much smaller than the notional value; the traders and speculators therefore do not require large investments to trade in options (known as high leverage).
- The buyer of an option pays premium to the seller for purchase of the option. Option premium is the price of the option, payable to the option-seller upfront. The premium depends on the volatility of the underlying market, the expiry date (maturity), interest rates and the strike price - the factors that determine the risk to the seller. Option premium increases with the volatility of the markets, maturity and intrinsic value of the option.



- Option premium or the price of option is higher or lower based on intrinsic value and time value of the option. In the money options are costlier than out-of-the money options. Time value is linked to residual maturity - longer the maturity, costlier is the option.
- The option always has two legs. A put option on USD at USD/JPY strike (right to sell USD against JPY at rate X) is also a call option on JPY (right to buy JPY against USD payment at X rate). The option may thus be described as USD put or Yen call at, say, 105.
- In financial markets, the underlying product may relate to currency, bonds or equity. A call a bond gives the right to buy the bond at a prefixed price (strike price). Since the price of a risk-free bond reflects the prevailing interest rate, the bond option also becomes an interest rate option, the mechanics are similar to currency option.

Forward Contract	Option Contract
The contract must be executed at contracted rate on the expiry date.	The holder has a right to exercise the option, but has no obligation.
The rate is fixed at current market quote.	Holder may choose strike price (contracted rates) or market rate whichever is better for him.
There is no fee payable, the quoted rate includes bank margin.	Option premium is payable front-end.
Forward premium is the interest rate differential of two currencies involved.	Option premium is determined by several factors, including strike price, volatility of exchange rates and interest rates.
Forward contract is a simple contract for purchase or sale of currency - there are no variations.	Various types of options are available, and simple to complex structures, with varying elements of risk, are possible by



	combining purchased and written options.
Buyers and sellers have only counter-party risk, and there is no market risk to either of them, so long as the market is liquid.	<p>(1) The writer of an option (option seller) has unlimited risk, while the buyer of an option has full upside benefit, with no risk in a plain vanilla option.</p> <p>(2) There is no market risk in plain vanilla options; however structured products may expose the holder to huge risks, which he may or may not be aware of.</p>

Futures

- Futures are forward contracts traded in a futures exchange. Under a futures contract, the seller agrees to deliver to the buyer a specified security/currency or commodity on a specified date, at a fixed price, Futures relating to exchange rates (currency futures), Interest rates (bond futures) and equity prices (stock/index futures) are known as financial futures, as distinct from commodity futures (oil/metal/agro-products etc.).
- Futures contracts are of standard sizes with prefixed settlement dates, as explained in the earlier part of this section.

Interest Rate and Currency Swaps

Interest Rate Swaps

- **A swap is an exchange of cash flow. An interest rate swap is an exchange of interest flows on an underlying asset or liability, the value of which is the notional amount of the swap.** In a swap, basis for calculation of interest is charged according to the requirement of the borrower (or, lender).
- An interest rate swap is shifting of basis of interest rate calculation, from fixed rate to floating rate, floating rate to fixed rate or floating rate to floating rate



(based on a different benchmark rate). The cash flows representing the interest payments during the swap period are exchanged accordingly.

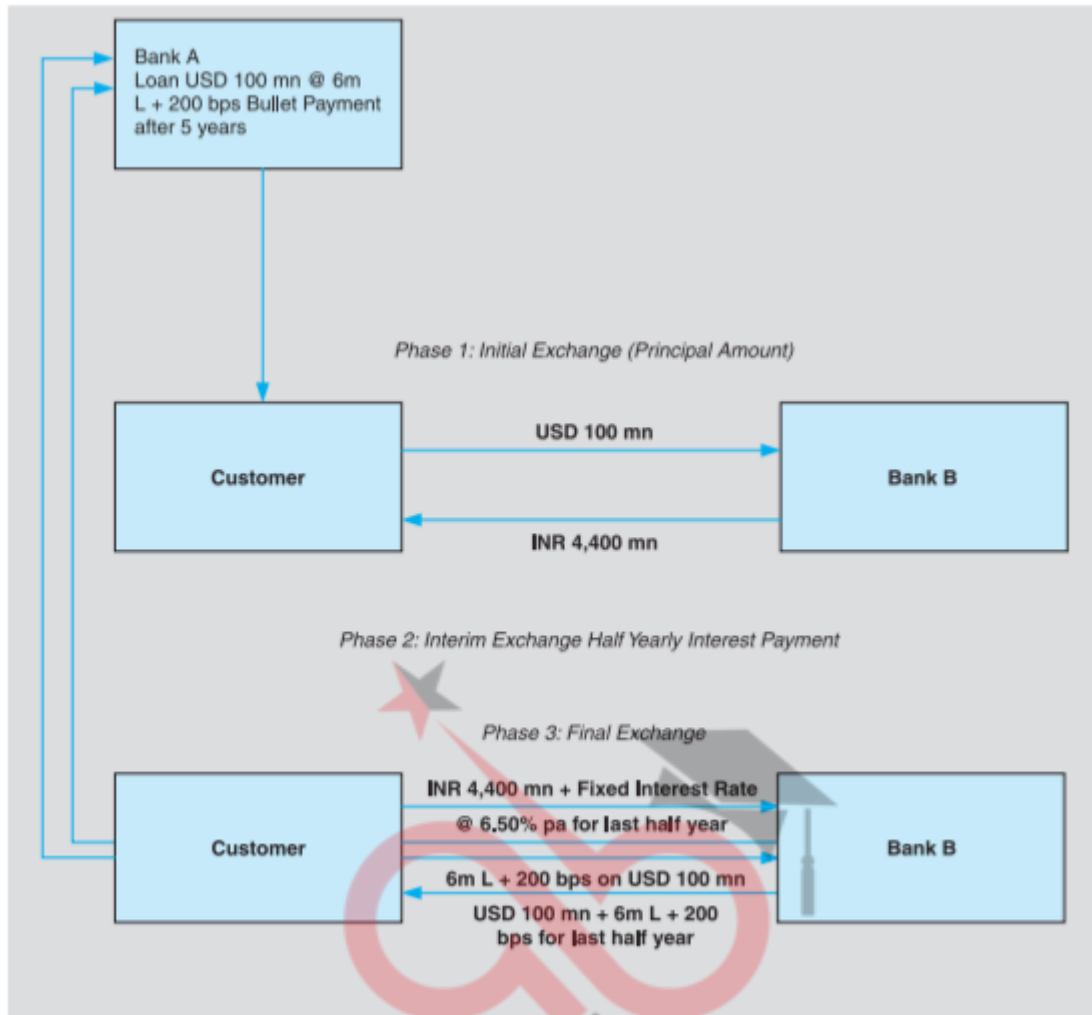
Currency Swap

- A Currency Swap is an exchange of cash flow in one currency, with that of another currency. The cash flow may relate to repayment of principal and/or interest under a loan obligation where the lender or the borrower intends to eliminate currency risk.
- If only currency is hedged, it will be Principal Only Swap (POS); if only interest rate is hedged, it would be Coupon Only Swap (COS). It is left to the discretion of the client to hedge currency and interest rate risks together, or separately.

Operationally, the three variants of currency swap function as under:

- **Principal Only Swap (POS):** The borrower continues to pay interest in USD terms, but has the benefit of using the principal amount in home currency, without exchange risk. The repayment takes place in domestic currency, at a fixed rate of exchange, hence there is no exchange risk.
- **Coupon Only Swap (COS):** The USD loan is utilized in the same currency, but interest on USD loan is swapped into Rupee interest - the borrower has to pay interest in Rupees at swap rate, principal repayment is as per original loan terms. Such strategy is useful, if principal amount is hedged by using other derivative instruments (e.g. options), or if the borrower prefers to leave the position open, in anticipation of appreciation of paying currency (If Rupee appreciates, USD borrows will effectively pay fewer Rupees to settle the debt).
- **P+I swap:** Without initial exchange - where the borrower has eliminated the currency risk and interest rate risk completely (zero risk) and will pay principal and interest in domestic currency (Rupees) to settle the foreign currency borrowing. The swap cost is included in the rupee interest rate.
- If we look closely we find that the currency swap only combines the currency forward rates and interest swap rates for the relevant period, in a structure easily understood by the buyer of the swap.

(A chart describing the cash flows in a currency & interest rate swap is attached for reference. Figure)



Developments In Indian Markets, and RBI Guidelines On Risk Exposure

The interest rate swaps (IRS) and forward rate agreements (FRA) were first allowed by RBI in 1999. Indian banks are permitted by RBI to enter into only plain vanilla type interest rate swaps, i.e. without any exotic structures. Corporate clients of bank can use IRS only for hedging purpose. Banks, Primary Dealers, Financial Institutions and Mutual funds can use IRS for hedging, as also for their *balance sheet management* and market making. RBI has issued detailed guidelines for capital adequacy requirement for derivatives.

While introducing IRS, RBI has taken some bold steps to encourage the derivative market, including



- Banks have been allowed to use the IRS not only for hedging, but also for trading (market making) purpose - which provision has boosted the treasury activity.
- RBI had earlier restricted benchmarks only to domestic markets - where only O/N MIBOR was widely used. Upon representation from banks, RBI allowed MIFOR as a benchmark for interest rate swaps, but later restricted the use of MIFOR only for inter-bank dealings. MIFOR combines LIBOR and forward premium (in short interest rate differential), and is based on active forex market dealings.
- RBI has permitted banks under ISDA Agreement, to opt for dual jurisdiction, i.e. under Indian as well as common law jurisdiction. This provision is important for global banks to engage with Indian banks.

Comprehensive Guidelines on Derivatives, in April 2007, which were subsequently modified in 2011 RBI in particular stipulated that

- Derivative products can be offered only to those corporates who have clearly laid down risk management policy approved at the Board level, and
- Banks must have a suitability & appropriateness policy so that they would avoid mis-selling of derivative products.

The key features of the new contracts are:

- Market Participants, i.e., residents and foreign portfolio investors, are allowed to take positions in the cross currency contracts without having to establish underlying exposure subject to the position limits as prescribed by the exchanges.
- Authorised Dealer Category-I bank trading members may undertake trading in all permitted exchange traded currency derivatives within their Net Open Position Limit (NOPL) subject to limits stipulated by the exchanges (for the purpose of risk management and preserving market integrity) provided that any synthetic USD-INR position created using a combination of exchange traded FCY-INR and cross-currency contracts shall have to be within the position limit prescribed by the exchange for the USD-INR contract.

Financial Benchmarks India Pvt Ltd (FBIL)



In order to overcome the possible conflicts of interest in the benchmark setting process arising out of the governance structure of the Fixed Income Money Market and Derivative Association of India (FIMMDA and Foreign Exchange Dealers' Association of India (FEDAI) an independent body was to be formed, either separately or jointly, by the FIMMDA and the FEDAI for administration of the benchmarks.

FBIL, an independent company, is a three-way joint venture between Fixed Income, Money Market and Derivatives Association of India, Foreign Exchange Dealers Association of India and Indian Banks Association. It was formed in December 2014 as a private limited company under the Companies Act 2013. Its aim is to develop and administer benchmarks relating to money market, government securities and foreign exchange in India.

FBIL also announces the benchmark rates/matrix of

- Term MIBOR for three tenors of 14-day, 1-month and 3-month
- FC-Rupee Options Volatilities for five tenors of 1-week, 1-month, 3-month, 6-month and 12-month
- Certificates of Deposit (FBIL-CD), and
- Treasury Bills (FBIL-TBILL)

on a daily basis except Saturday, Sundays and public holidays.

CAIIB BFM Module C Unit 7: Treasury and Asset-liability Management

Meaning Of Asset-Liability Management

The risks arise out of mismatch of assets and liabilities of the bank and asset-liability management is managing such balance sheet risks. The risks, if not controlled, may result in negative spreads or in erosion of net worth. ALM is therefore defined as protection of net worth of the bank.

Liquidity Risk and Interest Rate Risk

Liquidity

- **As we have seen earlier, liquidity and interest rate are two sides of the same coin, as the liquidity risk translates into interest rate risk, when the bank has to recycle the deposit funds or rollover a credit on market determined terms.** However, banks are extra sensitive to liquidity risks, as they



cannot afford to default or delay meeting their obligations to depositors and other lenders.

- Even suspicion of pressure over a bank's liquidity may prompt a run on the bank, or indeed, threaten the very survival of the bank. Hence special attention is paid to liquidity, in particular short-term liquidity (intra-day to one month) to ensure funds are promptly made available when they are needed.

Interest Rate

Interest rate risk arises when interest earnings are not adequate to set off interest payments due in a given period, even if the book value of the asset equals that of the liability, owing to a change in market rates of interest. Net interest income (NII) of the bank is the difference between interest earnings and interest payments in a given accounting period. Hence interest rate risk may be defined as the risk of erosion of NII account of interest rate movements in the market.

Experience of ALM in Indian Scenario:

- Depositors are always comfortable with fixed rate of interest. Bank like SBI and IDBI in the past introduced deposit schemes linked to floating rate interest, but it had not found the flavour of the depositors. Hence, these products were withdrawn.
- Under the circumstances, in case, the deposit rate goes up subsequent to placement of deposit by the depositors, the depositor would come for premature extension of the deposit and get the enhanced interest rate. Banks also do not charge any penalty for such extension. In case, the deposit rate fall down, the deposit would continue with the deposit at the contracted rate of interest. Hence, the depositors are comfortable in fixed rate interest regime in our country and in the process effectively pass on the interest rate risk to the bank.
- But in the advances side, RBI has introduced the MCLR system from 1s April, 2016, which is a floating rate of interest. Hence, under the interest rate falling scenario, the banks' NIM would be come down since the deposits are at fixed rate and advances are at floating rate. In case, interest rate goes up, the banks may not actually get the full benefit of interest rate hike, as most of the depositors would come premature extension of the deposit. By this, the interest rate going up is nullified and the risk is passed on to the banks.
- In the above scenario, it is difficult to hedge the entire interest rate risk since most of the players i.e., Banks are on one side of the market.

Role Of Treasury In ALM

As stated earlier, the core function of Treasury is fund management. It automatically engulfs liquidity and interest rate risks, as the treasury maintains the pool of bank's funds. **We may briefly explain the relationship between Treasury and ALM as under:**



- As we have illustrated above, the balance sheet of a bank carries enormous market risk (in addition to credit risk), but the banking operation itself is confined to accepting deposits, and extending credit to needy borrowers, besides miscellaneous payment services. It is Treasury which operates in financial markets directly, establishing a link between core banking functions and market operations. Hence the market risk is identified and monitored through Treasury.
- The asset-liability mismatches cannot be ironed out as the assets or liabilities cannot be physically moved across the time bands. It may also be noted that bank earns profits out of mismatches and it is not really advisable to remove the mismatches completely from the balance sheet. Treasury uses derivatives and other means, including new product structures to bridge the liquidity and rate sensitivity gaps.
- Treasury, while taking trading positions in forex and securities markets, is also exposed to market risk on its own creation. Sometimes the risks are compensatory in nature and help bridge the mismatches on banking side. The Treasury may therefore hedge only residual risk.
- As the markets develop, many credit products are being substituted by treasury products. For instance, bank may subscribe to commercial purpose, instead of extending working capital to an entity. Treasury are marketable and hence liquidity can be infused in times of need. Treasury also monitors exchange rate and interest rate movements in the markets, and hence it is much easier to administer such risks through treasury operations.

Use of Derivatives In ALM

- **Derivative instruments are useful in managing the liquidity and interest rate risks, as also in structuring new products which help overcome market risk to a large extent.** Derivatives replicate market movements, and hence can be used to counter the risks inherent in regular transactions. For instance, if we are buying a stock which is highly sensitive to market movements, we can sell index futures as an insurance/hedge against fall in stock prices. The advantage in derivatives is that the requirement of capital is very small, and largely there is no deployment of funds (except in case of exchange traded instruments, where there is a margin requirement - but it is only a fraction of notional amount).
- Derivatives can be used to hedge high value individual transactions, or aggregate risks as reflected the asset-liability mismatches. In the latter case, a dynamic management of hedge is necessary as the composition of assets and liabilities is always changing. The following illustrations show how derivatives be used to manage ALM risks.

Credit Risk and Credit Derivatives

Treasury and Credit Risk



- **As we have seen, Treasury is mostly concerned with market risk. Credit risk in treasury business is only with respect to counterparty dealings, contained by exposure limits and risk management norms.** In normal course, treasury operations are untouched by the credit risk present in bank's lending business.
- Credit derivatives (CD) help the issuer diversify the credit risk and use the capital more efficiently. The CD is a transferable instrument, though the market for CDs is not very liquid. The CD products are still emerging and various covenants related to the transaction are incorporated in the ISDA Master Agreement for Credit Derivatives.

The eligible entities under market-makers and users categories are as under:

- **Market makers:** Commercial Banks, standalone Primary Dealers (PDs), Non-Banking Financial Companies (NBFCs) having sound financials and good track record in providing credit facilities and any other institution specifically permitted by the Reserve Bank. Insurance companies and Mutual Funds would be permitted if permitted by their regulators.
- **Users:** Commercial Banks, PDs, NBFCs, Mutual Funds, Insurance Companies, Housing Finance Companies, Provident Funds, Listed Corporates, All India Financial Institutions namely, Export Import Bank of India (EXIM), National Bank for Agriculture and Rural Development (NABARD), National Housing Bank (NHB) and Small Industries Development Bank of India (SIDBI), Foreign Institutional Investors (FIIS) and any other institution specifically permitted by the Reserve Bank.
- RBI has prescribed eligibility norms for market makers and has also prescribed detailed operational guidelines and capital adequacy norms for Credit Default Swaps.

Transfer Pricing

- **Transfer pricing is an integral function of asset-liability management and is in the domain of bank's treasury.** Transfer pricing refers to fixing the cost of resources and return on assets of the bank in a rational manner.
- The treasury notionally buys and sells the deposits and loans of the bank, and the price at which the treasury buys and sells forms the basis for assessing profitability of banking activity. The treasury determines the buy/sell prices on the basis of market rates of interest, the cost of hedging market risk and the cost of maintaining reserve assets of the bank.

Policy Environment

The asset-liability management will be effective, only if there is a strong policy foundation. Though in general we describe it as ALM Policy, the policy should aim at aggregate risk of the bank and should achieve coordination between different



departments of the bank and treasury. **An Integrated Risk Management Policy, bearing upon Market Risk of the Bank, should ideally have the following components:**

- **ALM Policy** prescribes the composition of Asset Liability Management Committee (ALCO) and operational aspects of ALM, including risk measures, monitoring of risks, risk neutralization, product pricing, management information systems and more importantly how to improve and/or maintain the existing NIM, etc.
- **Liquidity Policy** prescribes minimum liquidity to be maintained, funding of reserve assets, limits on exposure to money market, contingent funding, inter-bank committed credit lines etc.
- **Derivatives Policy** prescribes norms for use of derivatives, capital allocation, restrictions on derivative trading, valuation norms, exposure limits etc.
- **Investment Policy** prescribes the permissible investments, norms re-credit rating and listing, SLR and Non-SLR investments, private placement, trading in securities and repos, classification and valuation of investments, accounting policy etc.
- **Composite Risk Policy for Foreign Exchange and Treasury** prescribes norms for merchant and trading positions, securities trading, exposure limits, limits on intra-day and overnight positions, stop-loss limits, periodical valuation of trading positions etc.
- **Transfer Pricing Policy** prescribes the methodology, spreads to be retained by treasury, segregation of administrative costs and hedging costs, allocation of costs to branches/other departments of the bank etc.
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CAIIB Paper 2 (BFM) Module D Balance Sheet Management

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Unit 1	Components of Assets and Liabilities in Bank's Balance Sheet and their Management
Unit 2	Capital Adequacy – Basel Norms
Unit 3	Asset Classification and Provisioning Norms
Unit 4	Liquidity Management
Unit 5	Interest Rate Risk Management
Unit 6	RAROC and Profit Planning

CAIIB BFM Module D Unit 1: Components of Assets and Liabilities in Bank's Balance Sheet and their Management

Introduction

- It has always been the function or responsibility of Treasury and other financial strategic departments. However, of late Asset Liability Management



departments are being established and asset and liability committees are being formed within financial institutions.

- These committees are often given extraordinary powers regarding the mix and match of assets and liabilities and have large influence in winding up activities which do not fit business strategy.

Components Of A Bank's Balance Sheet

Like any balance sheet of any other firm, a bank's balance sheet also comprises of sources and uses of funds. Liabilities and net worth form the sources of the bank's funds, whereas assets represent uses of funds to generate revenue for the bank.

The summarised form and its components are:

Sources of Funds	Application of Funds
Capital	Cash In Hand and Balance with RBI
Reserves	Balances with Banks and Money at Call and Short Notice
Deposits	Investments
Borrowings	Advance
Other Liabilities and provisions	Fixed Assets
	Other Assets
TOTAL	TOTAL

Components of Liabilities

Capital

- Capital represents the owners' stake in a bank and it serves as a cushion for depositors and creditors to fall back in case of losses. It is considered to be a long-term source of funds. Minimum capital requirement for the domestic and foreign banks is prescribed by Reserve Bank of India.

Reserve and Surplus

The components under this item include statutory reserves, capital reserves, share premium, revenue and other reserves and balance in profit and loss account.

Deposits: The main source of funds for the banks is deposits. The deposits are broadly classified as deposits payable on demand which include current deposits, overdue deposits, call deposits, etc. Second category is savings bank deposits and lastly the term deposits which are repayable after a specified period, known as fixed deposits, short deposits and recurring deposits.



Borrowings: Borrowings in India consist of borrowings/refinance obtained from the RBI, other commercial banks and other institutions and agencies like IDBI, EXIM Bank of India, NABARD, etc.

Other Liabilities and Provisions: The other liabilities of the bank are grouped into the following categories:

- **Bills Payable:** This includes drafts, telegraphic transfers, travellers cheques, mail transfers payable, payslips, bankers' cheques and other miscellaneous items.
- **Inter-Office Adjustments:** The credit balance of the net inter-office adjustments.
- **Interest Accrued:** The interest accrued but not due on deposits and borrowings.
- **Others:** All other liability items like provision for income tax, tax deducted at source, interest tax, provisions, etc.

Components of Assets

Cash and Balances with RBI

All cash assets of banks are listed under this account and it forms the most liquid account held by any bank. *The cash assets consist of the following:*

- **Cash in Hand:** This asset item includes cash in hand, including foreign currency notes and cash balances in the overseas branches of the bank.
- **Balances With RBI:** Cash account also includes the balances held by each bank with RBI in order to meet statutory cash reserve requirements (CRR) and also surplus cash parked with RBI over and above CRR requirement to meet emergency funding requirements.
- **Balances with Banks and Money at Call and Short Notice:** The bank balances include the amount held by the bank in the current accounts and term deposit accounts with other banks. Under call money market, funds are transacted on an overnight basis and under notice money market, funds are transacted for a period between 2 days and 14 days.

Investments

- A major asset item in the balance sheet of a bank is investments in various kinds of securities. These include investments in government securities, approved securities, shares, debentures and bonds, and/or joint subsidiaries ventures and other investments.

Advances

The most important asset item on a bank's balance sheet is advances. These advances which represent the credit extended by a bank to its customers, forms a major part of the assets for all the banks.



- **Cash credits Overdrafts and Loans Repayable on Demand.** Items under this category represent advances - which are repayable on demand though they may have a specific due date.
- **Term Loans.** All term loans extended by a bank are included here. These advances also have a specific due date, but they will not become payable on demand. In short, most of the term loans are repaid in the form of EMIs (Equated Monthly Instalments).
- **Bills Purchased and Discounted.** This item includes the bills discounted purchased by banks from the client irrespective of whether they are clean/documentary or domestic/foreign.
- **Secured/unsecured Advances.** Based on the underlying security, advances are classified into the following categories:
 - **Secured by Tangible Assets:** All advances or part of advances, within/outside India, which are secured by tangible assets will be considered as secured assets.
 - **Covered by Bank/Government Guarantees:** Advances in India and outside India to the extent they are covered by guarantees of Indian and foreign governments/banks and DICGC and ECGC will be included here.
 - **Unsecured Advances:** All advances that do not have any security and which do not appear in the above two categories will come under this category.

Fixed Assets: All fixed assets of a bank, e.g., immovable properties, premises, furniture and fixtures, hardware, motor vehicles are classified into fixed assets.

Other Assets: The remainder of the items on the asset side of a bank's balance sheet are categorised as other assets. The miscellaneous assets that appear are:

- **Inter-office Adjustments:** Debit balance of the net position or the interoffice accounts, domestic as well as overseas.
- **Interest Accrued:** This will be the interest accrued, but not due on investments and advances and interest due, but not collected on investments.
- **Tax Paid in Advance/tax Deducted at Source:** This includes amount of tax deducted at source on securities and the advance tax paid to the extent that they are not set-off against relative tax provisions.
- **Stationery and Stamps:** Stock of stationery on hand is considered under this head of account.
- **Non-Banking Assets Acquired in Satisfaction of Claims.** Items under this account include immovable properties/ tangible assets which are acquired by a bank in satisfaction of the bank's claims on others.
- **Others:** Other items primarily include claims that are in the form of clearing items, unadjusted debit balances representing additions to assets and deductions from liabilities and advances provided to the employees of a bank.

Contingent Liabilities



A bank's obligations under issuance of letter of credit, guarantees and acceptances on behalf of constituents and bills accepted by the bank on behalf of its customers are reflected under contingent liabilities. Other contingent liabilities include claims against the bank not acknowledged as debts, liability for partly paid-up investments, liability on account of outstanding forward exchange contracts and other items like arrears of cumulative dividends, bills rediscounted, underwriting, commitments, estimated amount of contracts remaining to be executed on capital account and not provided for, etc.

Bank's Profit and Loss Account

A bank's profit and loss account has following components:

- **Income:** which includes Interest income and other income.
- **Expenses:** which includes Interest expended, Operating expenses and Provisions and Contingencies:

Income

Interest income

- Interest/ Discount on Advances/ Bills
- Income on investments
- Interest on Balances with RBI and Other Interbank Funds

Other income

- Commission, Exchange and Brokerage
- Profit on sale or investment
- Profit on Revaluation of investment
- Profit on sale of land, Building and other Assets
- Profit on Exchange Transactions
- Misc income

Expenses

- Interest on Deposits
- Interest on RBI/Interbank Borrowings
- Others

Operating Expenses

- Payments to and Provisions for Employees
- Rent, Taxes and Lighting
- Printing and Stationery
- Advertisement and Publicity
- Depreciation on Bank's Property
- Director's fees, Allowances and Expenses



- Law-charges
- Postage
- Repairs and Maintenance
- Insurance

What Is Asset Liability Management?

- Because the business of banking involves the identifying, measuring, accepting and managing the risk, the heart of **bank financial management is risk management. One of the most important risk-management functions in banking is Asset Liability Management (ALM).**
- Asset Liability Management is concerned with strategic balance sheet management involving risks caused by changes in interest rates, exchange rate, credit risk and the liquidity position of a bank. With profit becoming a key-factor, it has now become imperative for a bank to move away from partial asset management (Credit and Non Performing Asset) and partial liability management, towards an integrated balance sheet management where all the components of balance sheet and its different maturity mix will be looked at from the profit angle of the bank.
- Asset Liability Management (ALM) is the act of planning, acquiring, and directing the flow of funds through an organisation. The ultimate objective of this process is to generate adequate/stable earnings and to steadily build an organisation's equity over time, while taking reasonable and measured business risks.

In brief ALM

- Concerned with strategic balance sheet management
- Match between assets and liabilities in Balance Sheet
- Risks like credit, market, liquidity, interest etc. stem from mismatch between Assets & Liabilities
- ALM is not to avoid risk but to manage risk sustaining profitability
- Periodic monitoring of risk exposures involving collecting and analysing information
- Ability to anticipate, forecast and to act so as to maximise bank's business to profit
- Altering Assets & Liabilities portfolio in a dynamic way to manage risks
- Involves judgement and decision making
- ALM involves Planning, Directing and Controlling the flow, mix, cost and yield of the consolidated funds of bank
- Assesses various asset mixes, funding combinations, price volume relations and their implications on Liquidity, Income and Capital ratio
- Planning procedure which accounts for all assets and liabilities of a bank by rate, amount and maturity



Significance Of Asset Liability Management

Some of the reasons for growing significance of Asset Liability Management are:

- **Volatility:** Deregulation of financial system changed the dynamics of financial markets. The vagaries of such free economic environment are reflected in interest rate structures, money supply and the overall credit position of the market, the exchange rates and price levels.
- **Product Innovation:** The second reason for growing importance of ALM is the rapid innovations taking place in the financial products of the bank. While there were some innovations that came as passing fads, others have received tremendous response. In several cases, the same product has been repeated with certain differences and offered by various banks (normally called as old wine in new bottle). Whatever may be features of the products, most of them have an impact on the risk profile of the bank thereby enhancing the need for ALM. For example, Flexi-deposit facility.
- **Regulatory Environment:** At the international level, Bank for International Settlements (BIS) provides a framework for banks to tackle the market risks that may arise due to rate fluctuations and excessive credit risk. Central Banks in various countries (including Reserve Bank of India) have issued frameworks and guidelines for banks to develop Asset Liability Management policies.
- **Management Recognition:** All the above-mentioned aspects forced bank managements to give a serious thought to effective management of assets and liabilities. The managements have realised that it is just not sufficient to have a very good franchise for credit disbursement, nor is it enough to have just a very good retail deposit base. In addition to these, a bank should be in a position to relate and link the asset side with the liability side. And this calls for efficient asset-liability management.

There is an increasing awareness in the top management that banking is now a different game altogether since all risks of the game have changed.

Purpose and Objectives Of Asset Liability Management

An effective Asset Liability Management technique aims to manage the volume, mix, maturity, rate sensitivity, quality and liquidity of assets and liabilities as a whole so as to attain a predetermined acceptable risk/reward ratio. Thus, the purpose of Asset Liability Management is to enhance the asset quality; quantify the risks associated with the assets and liabilities and further manage them. ***Such a process will involve the following steps:***

- Reviewing the interest rate structure and comparing the same to the interest/product pricing of both liquidity assets and liabilities.
- Examining the loan and investment portfolios in the light of the foreign exchange risk and liquidity risk that might arise.



- Examining the credit risk and contingency risk that may originate either due to rate fluctuations or otherwise and assess the quality of assets.
- Reviewing the actual performance against the projections made and analysing the reasons for any effect on the spreads.

The Asset Liability Management techniques so designed to manage various risks, primarily aim to stabilise the short-term profits, long-term earnings and long-term substance/quality of the bank. ***The parameters that are selected for the purpose of stabilising Asset Liability Management of banks are:***

- Net Interest Income (NII)
- Net Interest Margin (NIM)
- Economic Equity Ratio

A brief description of these parameters is given below:

Net Interest Income (NII)

The impact of volatility on the short-term profit is measured by Net Interest Income.

$$\text{Net Interest Income} = \text{Interest Income} - \text{Interest Expenses.}$$

In order to stabilise short-term profits; banks have to minimise fluctuations in the NII.

Net Interest Margin (NIM)

Net Interest Margin is defined as net interest income divided by average total assets.

$$\text{Net Interest Margin (NIM)} = \text{Net Interest Income} / \text{Average total Assets.}$$

Net Interest Margin can be viewed as the 'Spread' on earning assets.

The net income of banks comes mostly from the spreads maintained between total interest income and total interest expense. The higher the spread, the more will be the NIM. There exists a direct correlation between risks and return. As a result, greater spreads only imply enhanced risk exposure. But since any business is conducted with the objective of making profits and achieving higher profitability is the target, it is the management of risks and not risk elimination, that holds the key to success.

Economic Equity Ratio

The ratio of the shareholders' funds to the total assets measures the shifts in the ratio of owned funds to total funds. This fact assesses the sustenance capacity of the bank.

Objectives of ALM

At macro-level, Asset Liability Management leads to the formulation of critical business policies, efficient allocation of capital and designing of products with appropriate pricing strategies. And at micro-level the objectives of Asset Liability Management are



two folds. It aims at profitability through price matching while ensuring liquidity by means of maturity matching.

- **Price Matching** basically aims to maintain spreads by ensuring that the deployment of liabilities will be at a rate higher than the costs. This exercise would indicate whether the institution is in a position to benefit from rising interest rates by having a positive gap (assets > liabilities) or whether it is in a position to benefit from declining interest rates by a negative gap (liabilities > assets).
- **Liquidity** is ensured by grouping the assets/liabilities based on their maturing profiles. The gap is then assessed to identify future financing requirements. However, there are often maturity mismatches, which may to a certain extent affect the expected results.

ALM as Co-Ordinated Balance Sheet Management

The asset liability management function can be viewed in terms of two-stage approach to balance sheet financial management as follows:

Stage 1

Specific Balance Sheet Management Functions

Asset side Management will include:

- Reserve position management
- Liquidity management
- Investment/Security Management
- Loan Management
- Fixed-Assets Management

Liability side Management will include:

- Liability Management
- Reserve Position Management
- Long-Term Management (Notes and Debentures)
- Capital Management

Stage 2

Income-Expense Functions

Profit = Interest Income - Interest expense - provision for loan loss + non-interest revenue - non-interest expense - taxes

Banks are required to formulate policies to achieve following objectives of Asset Liability Management:

- Spread Management



- Loan Quality
- Generating fee income and service charges
- Control of non-interest operating expenses
- Tax Management
- Capital Adequacy

CAIIB Paper 2 (BFM) Module D Unit 2: Capital Adequacy – The Basel Norms

Scope Of Application

- The revised capital adequacy norms are applicable uniformly to all Commercial Banks (except Cooperative Banks, Local Area Banks and Regional Rural Banks), both at the solo level (global position) as well as at the consolidated level. A Consolidated bank is defined as a group of entities where a licensed bank is the controlling entity.
- A consolidated bank will include all group entities under its control, except the exempted entities. A consolidated bank may exclude group companies, which are engaged in insurance business and businesses not pertaining to financial services. A consolidated bank should maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) as applicable to a bank on an ongoing basis.

Three Pillars of Basel-III

Three Pillars of Basel-III		
Pillar I: Minimum Capital Requirement	Pillar-II: Supervisory Review Process	Pillar-III: Market Discipline
<ol style="list-style-type: none"> 1. Constituents of Capital 2. Capital for Credit Risk <ol style="list-style-type: none"> (a) Standardised Approach (b) Internal Rating Based (IRB) Approaches <ol style="list-style-type: none"> (i) Foundation Approach; (ii) Advanced Approach; 3. Capital for Market Risk <ol style="list-style-type: none"> (a) Standardised method <ol style="list-style-type: none"> (i) Maturity method; (ii) Duration method. (b) Internal models method 4. Capital for Operational Risk <ol style="list-style-type: none"> (a) Basic Indicator Approach (BIA) (b) Standardised Approach (c) Advanced Measurement Approach 		

PILLAR-I: Minimum Capital Requirements

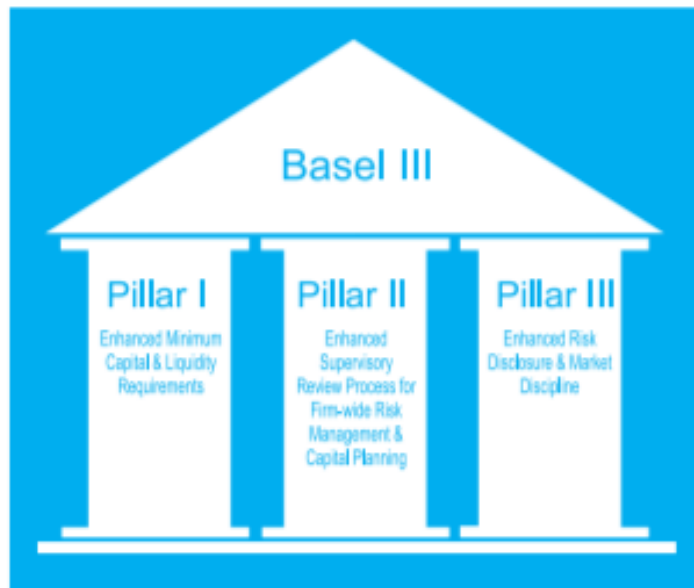


- The capital ratio continues to be calculated using the definition of regulatory capital and risk-weighted assets. The definition of eligible regulatory capital largely continues to be as **defined in the earlier accord of 1988** and amended to include Tier-III capital as prescribed **in January 96 and September 97**.
- Thus the term capital would include Tier-I or core capital, Tier-II or supplemental capital, and Tier-III capital. Tier- III capital, provided under the Basel II guidelines which took care of market risk of the banks, has since been phased out with the introduction of Basel III guidelines. **The total capital ratio must not be lower than 8% (9% in India).**
- **Core capital consists of paid up capital, free reserves and unallocated surpluses, less specified deductions.** Any capital requirement arising in respect of credit and counter-party risk needs to be met by Tier-I and Tier-II capital. Supplementary capital comprises subordinated debt of more than five years' maturity, loan loss reserves, revaluation reserves (which is now part of Tier-I capital in India), investment fluctuation reserves, and limited life preference shares. **Tier-II capital is restricted to 100% of Tier-I capital as before.**
- The scope of risk weighted assets is expanded to include certain additional aspects of market risk and also operational risk. The area of operational risk is brought under the ambit of risk-weighted assets for the first time. **Total risk weighted assets include the capital requirement for market risk and operational risk multiplied by 12.5, i.e. reciprocal of the minimum capital requirement of 8% along with risk weighted assets for credit risk.**

Total Risk weighted assets = Risk weighted assets for credit risk + 12.5*Capital requirement for market risk + 12.5*Capital requirement for operational risk. The individual component of risk-weighted assets is dealt with in detail in Module B, (Risk Management).

Thus the Basel-III accord, which has undergone a subtle change from Basel II, does not merely prescribe minimum capital requirement, but envisages processes of supervisory review and market discipline. The revised framework is more risk sensitive than the 1988 accord. There are incentives for those banks, which have better risk management capabilities.

The Three Pillars of Basel III is given in the form of a diagram below:



PILLAR 2 – Supervisory Review Process

The capital adequacy ratio prescribed by the RBI under the Pillar 1 of the Framework is only the regulatory minimum level, addressing only the three specified risks (viz., credit, market and operational risks) and holding additional capital might be necessary for the banks, on account of

The possibility of some underestimation of risks under the Pillar 1 and The actual risk exposure of a bank vis-a-vis the quality of its risk management architecture. Illustratively, some of the risks that the banks are generally exposed to, but which are **not captured or not fully captured in the regulatory CRAR would include:**

- Interest rate risk in the banking book, which is part of market risk.
- Credit concentration risk, which is normally part of credit risk.
- Liquidity risk, for convenience sake included as part of market risk.
- Settlement risk, which is also called as counter-party risk and is part of credit risk.
- Reputational risk, which is equivalent to operational risk.
- Strategic risk, which is equivalent to operational risk.
- Risk of under-estimation of credit risk under the Standardised approach – Credit risk.
- “Model risk” i.e., the risk of under-estimation of credit risk under the IRB approaches – Credit risk.
- Risk of weakness in the credit-risk mitigants – Credit risk.
- Residual risk of securitisation, etc. – can be part of Credit and Market risk.
- Climate Risk
- Payment & Settlement Risk

It is therefore, only appropriate that the banks make their own assessment of their various risk exposures, through a well-defined internal process, and maintain an adequate capital cushion for such risks. Further it is recognised that there is no one



single approach for conducting the ICAAP and the market consensus in regard to the best practice for undertaking ICAAP, which is yet to emerge.

The ICAAP document should include the capital adequacy assessment and projections of capital requirement for the ensuing year, along with the plans and strategies for meeting the capital requirement and should also be approved by the Board.

Guidelines for the SRP of the RBI and the ICAAP of the Banks

While the Basel-I framework was confined to the prescription of only minimum capital requirements for banks, the Basel-II framework expanded this approach not only to capture certain additional risks in the minimum capital ratio, but also includes two additional areas – the Supervisory Review Process and Market Discipline through increased disclosure requirements for banks. The Basel III framework has also maintained the same approach. Thus,

The Basel Capital Adequacy Framework rests on the following three mutually-reinforcing pillars:

- **Pillar 1: Minimum Capital Requirements** – which prescribes a risk-sensitive calculation of capital requirements that, for the first time, explicitly includes operational risk in addition to market and credit risk.
- **Pillar 2: Supervisory Review Process (SRP)** – which envisages the establishment of suitable risk management systems in banks and their review by the supervisory authority.
- **Pillar 3: Market Discipline** – which seeks to achieve increased transparency through expanded disclosure requirements for banks.

The Basel Committee has also laid down the following four key principles in regard to the SRP envisaged under Pillar 2:

- **Principle 1:** Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.
- **Principle 2:** Supervisors should review and evaluate the banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with the regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.
- **Principle 3:** Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require the banks to hold capital in excess of the minimum.
- **Principle 4:** Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Banks' Responsibilities



- Banks should have in place a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels (Principle 1)
- Banks should operate above the minimum regulatory capital ratios (Principle 3)

Supervisors' Responsibilities

- Supervisors should review and evaluate a bank's ICAAP. (Principle 2)
- Supervisors should take appropriate action if they are not satisfied with the results of this process. (Principle 2)
- Supervisors should review and evaluate a bank's compliance with the regulatory capital ratios. (Principle 2)
- Supervisors should have the ability to require banks to hold capital in excess of the minimum. (Principle 3)
- Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels. (Principle 4)
- Supervisors should require rapid remedial action if capital is not maintained or restored. (Principle 4)

ICAAP to be a Forward-looking Process

- The ICAAP should be forward looking in nature, and thus, should take into account the expected/ estimated future developments such as strategic plans, macro-economic factors, etc., including the likely future constraints in the availability and use of capital.
- As a minimum, the management of a bank shall develop and maintain an appropriate strategy that would ensure that the bank maintains adequate capital commensurate with the nature, scope, scale, complexity and risks inherent in the bank's on-balance sheet and off-balance-sheet activities, and should demonstrate as to how the strategy dovetails with the macro-economic factors.
- Thus, the banks shall have an explicit, Board-approved capital plan which should spell out the institution's objectives in regard to level of capital, the time horizon for achieving those objectives, and in broad terms, the capital planning process and the allocate responsibilities for that process.

The plan shall outline:

- The bank's capital needs;
- The bank's anticipated capital utilisation;
- The bank's desired level of capital;
- Limits related to capital;
- A general contingency plan for dealing with divergences and unexpected events.

ICAAP to be a Risk-based Process

- The adequacy of a bank's capital is a function of its risk profile. Banks shall, therefore, set their capital targets, which are consistent with their risk profile and operating environment.



- At a minimum, a bank shall have in place a sound ICAAP, which shall include all material risk exposures incurred by the bank. There are some types of risks (such as reputation risk and strategic risk) which are less readily quantifiable; for such risks, the focus of the ICAAP should be more on qualitative assessment, risk management and mitigation than on quantification of such risks.
- Banks' ICAAP document should clearly indicate the risks for which a quantitative measure is warranted, and the risks for which a qualitative measure is considered to be the correct approach.

An Illustrative Outline of the ICAAP Document

What is an ICAAP document?

- The ICAAP Document would be a comprehensive paper furnishing detailed information on the ongoing assessment of the bank's entire spectrum of risks, how the bank intends to mitigate those risks and how much current and future capital is necessary for the bank, reckoning other mitigating factors.
- The purpose of the ICAAP document is to apprise the Board of the bank on these aspects as also to explain to the RBI the bank's internal capital adequacy assessment process and the banks' approach to capital management. The ICAAP could also be based on the existing internal documentation of the bank.
- The ICAAP document submitted to the RBI should be formally approved by the bank's Board. It is expected that the document would be prepared in a format that would be easily understood at the senior levels of management and would contain all the relevant information necessary for the bank and the RBI to make an informed judgment as to the appropriate capital level of the bank and its risk management approach.
- Where appropriate, technical information on risk measurement methodologies, capital models, if any, used and all other work carried out to validate the approach (e.g. board papers and minutes, internal or external reviews) could be furnished to the RBI as appendices to the ICAAP Document.

Contents

The ICAAP Document should contain the following sections:

- Executive Summary
- Background
- Summary of Current and Projected Financial and Capital Positions
- Capital Adequacy
- Firm-wide Risk Oversight and Specific Aspects of Risk Management
- Key Sensitivities and Future Scenarios
- Aggregation and Diversification
- Testing and Adoption of the ICAAP
- Use of the ICAAP within the Bank

PILLAR 3 – Market Discipline



- Banks' disclosures should be consistent with how senior management and the Board of directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/methodologies for measuring the various risks they face and the resulting capital requirements.
- The key idea behind various types of disclosures by banks to the market is to make the market, when it possesses full and critical information about a bank, a disciplinary agent thereby exercising a salutary effect on the bank in particular and the market in general.
- Market Discipline leads to better Corporate Governance. Corporate governance is the system of rules, practices and processes by which a company/bank is directed and controlled. Market discipline contributes to a safe and sound banking environment. That is the reason the 19th Century Victorian Banker and Economist Walter Bagehot said, 'A well-run bank needs no capital. No amount of capital will rescue a badly run bank'.

Guiding Principles for Banks' Pillar 3 Disclosures

The Basel Committee on Banking Supervision (BCBS) has agreed upon the following five guiding principles on Pillar 3 disclosures:

- Principle 1: Disclosures should be clear.
- Principle 2: Disclosures should be comprehensive.
- Principle 3: Disclosures should be meaningful to users.
- Principle 4: Disclosures should be consistent over time.
- Principle 5: Disclosures should be comparable across banks.

Scope and Frequency of Disclosures

Pillar 3 applies at the top on consolidated level of the banking group to which the Capital Adequacy Framework applies. Disclosures related to individual banks within the groups would not generally be required to be made by the parent bank. An exception to this arises in the disclosure of capital ratios by the top consolidated entity where an analysis of significant bank subsidiaries within the group is appropriate, in order to recognise the need for these subsidiaries to comply with the Framework and other applicable limitations on the transfer of funds or capital within the group. Pillar 3 disclosures will be required to be made by the individual banks on a stand-alone basis when they are not the top consolidated entity in the banking group. Banks are required to make Pillar 3 disclosures at least on a half yearly basis, irrespective of whether financial statements are audited, with the exception of following disclosures:

- Capital Adequacy;
- Credit Risk: General Disclosures for All Banks; and
- Credit Risk: Disclosures for Portfolios Subject to the Standardised Approach.

The disclosures as indicated at (i), (ii) and (iii) above will be made at least on a quarterly basis by banks.

All disclosures must either be included in a bank's published financial results/statements or, at a minimum, must be disclosed on bank's website. If a bank



finds it operationally inconvenient to make these disclosures along with published financial results/statements, the bank must provide in these financial results/statements, a direct link to where the Pillar 3 disclosures can be found on the bank's website. The Pillar 3 disclosures should be made concurrent with publication of financial results/statements. A common template is to be used by banks to report the details of their regulatory capital after March 31, 2017 which is designed to meet the Basel III requirement to disclose all regulatory adjustments.

Validation

The disclosures should be subjected to adequate validation. Since information in the annual financial statements would generally be audited, the additional material published with such statements must be consistent with the audited statements. In addition, supplementary material (such as Management's Discussion and Analysis) that is published should also be subjected to sufficient scrutiny (e.g., internal control assessments, etc.) to satisfy the validation issue. Presently, Pillar 3 disclosures will not be required to be audited by an external auditor, unless specified.

Materiality

A bank should decide which disclosures are relevant for it based on the materiality concept. Information would be regarded as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purpose of making economic decisions.

Proprietary and Confidential Information

Proprietary information encompasses information (for example on products or systems), that if shared with competitors would render a bank's investment in these products/systems less valuable, and hence would undermine its competitive position. Information about customers is often confidential, in that it is provided under the terms of a legal agreement or counterparty relationship.

General Disclosure Principle

Banks should have a formal disclosure policy approved by the Board of Directors that addresses the banks' approach for determining what disclosures they will make, the internal controls over the disclosure process and the process for assessing the appropriateness of disclosures including validation and frequency.

Presentation of the Disclosure Requirements

The disclosure requirements are presented either in the form of templates or of tables. Templates must be completed with quantitative data in accordance with the definitions provided. Tables generally relate to qualitative requirements, but quantitative information is also required in some instances. Banks may choose the format they prefer when presenting the information requested in tables. The Master Circular on Basel III Regulations issued by Reserve Bank of India has prescribed the following disclosure tables;

Name of the head of the banking group to which the framework applies



Name of the entity/ Country of incorporation	Whether the entity is included under accounting scope of consolidation (yes/no)	Explain the method of consolidation	Whether the entity is included under regulatory scope of consolidation 225 (yes/no)	Explain the method of consolidation	Explain the reasons for difference in the method of consolidation	Explain the reasons if consolidated under only one of the scopes of consolidation 226

Qualitative Disclosures:

- List of group entities considered for consolidation
- List of group entities not considered for consolidation both under the accounting and regulatory scope of consolidation

Quantitative Disclosures:

List of group entities considered for consolidation

Name of the entity/country of incorporation	Principal activity of the entity	Total balance sheet equity <i>(as stated in the accounting balance sheet of the legal entity)</i>	Total balance sheet assets <i>(as stated in the accounting balance sheet of the legal entity)</i>

The aggregate amount of capital deficiencies in all subsidiaries which are not included in the regulatory scope of consolidation i.e. that are deducted:

Name of the subsidiaries/ country of incorporation	Principal activity of the entity	Total balance sheet equity <i>(as stated in the accounting balance sheet of the legal entity)</i>	% of bank's holding in the total equity	Capital deficiencies

The aggregate amounts (e.g. current book value) of the bank's total interests in insurance entities, which are risk-weighted

Name of the subsidiaries/ country of incorporation	Principal activity of the entity	Total balance sheet equity <i>(as stated in the accounting balance sheet of the legal entity)</i>	% of bank's holding in the total equity/ proportion of voting power	Quantitative impact on regulatory country capital of using risk weighting method versus using the full deduction method

Any restrictions or impediments on transfer of funds or regulatory capital within the banking group:

Table DF-2: Capital Adequacy

**Qualitative disclosures**

A summary discussion of the bank's approach to assessing the adequacy of its capital to support current and future activities

Quantitative disclosures

- (a) Capital requirements for credit risk:
 - Portfolios subject to standardised approach
 - Securitisation exposures
- (b) Capital requirements for market risk:
 - Standardised duration approach;
 - Interest rate risk
 - Foreign exchange risk (including gold)
 - Equity risk
- (c) Capital requirements for operational risk:
 - Basic Indicator Approach
 - The Standardised Approach (if applicable)
- (d) Common Equity Tier 1, Tier 1 and Total Capital ratios:
 - For the top consolidated group; and
 - For significant bank subsidiaries (stand alone or sub-consolidated depending on how the Framework is applied)

Table DF-3: Credit Risk: General Disclosures for all Banks

Qualitative Disclosures

The general qualitative disclosure requirement with respect to credit risk, including:

- Definitions of past due and impaired (for accounting purposes);
- Discussion of the bank's credit risk management policy.

Quantitative Disclosures

- (a) Total gross credit risk exposures²²⁸, Fund based and Non-fund based separately.
- (b) Geographic distribution of exposures²²⁹, Fund based and Non-fund based separately



- Overseas
- Domestic
- (c) Industry²³⁰ type distribution of exposures, fund based and non-fund based separately
- (d) Residual contractual maturity breakdown of assets,²³¹
- (e) Amount of NPAs (Gross)
 - Substandard
 - Doubtful 1
 - Doubtful 2
 - Doubtful 3
 - Loss
- (f) Net NPAs
- (g) NPA Ratios
 - Gross NPAs to gross advances
 - Net NPAs to net advances
- (h) Movement of NPAs (Gross)
 - Opening balance
 - Additions
 - Reductions
 - Closing balance
- (i) Movement of provisions (Separate disclosure shall be made for specific provisions and general provisions held by the bank with a description of each type of provisions held)
 - Opening balance
 - Provisions made during the period
 - Write-off
 - Write-back of excess provisions
 - Any other adjustments, including transfers between provisions
 - Closing balance

In addition, write-offs and recoveries that have been booked directly to the income statement should be disclosed separately.
- (j) Amount of Non-Performing Investments
- (k) Amount of provisions held for non-performing investments

- (l) Movement of provisions for depreciation on investments
 - Opening balance
 - Provisions made during the period
 - Write-off
 - Write-back of excess provisions
 - Closing balance
- (m) By major industry or counterparty type:
 - Amount of NPAs and if available, past due loans, provided separately;
 - Specific and general provisions; and
 - Specific provisions and write-offs during the current period.

In addition, banks are encouraged also to provide an analysis of the ageing of past-due loans.

- (n) Amount of NPAs and, if available, past due loans provided separately broken down by significant geographic areas including, if practical, the amounts of specific and general provisions related to each geographical area. The portion of general provisions that is not allocated to a geographical area should be disclosed separately.

Table DF-4: Credit Risk: Disclosures for Portfolios – Subject to the Standardised Approach



Qualitative Disclosures

For portfolios under the standardised approach:

- Names of credit rating agencies used, plus reasons for any changes;
- Types of exposure for which each agency is used; and
- A description of the process used to transfer public issue ratings onto comparable assets in the banking book.

Quantitative Disclosures

For exposure²³² amounts after risk mitigation subject to the standardised approach, amount of a bank's outstandings (rated and unrated) in the following three major risk buckets as well as those that are deducted;

- Below 100 % risk weight
- 100 % risk weight
- More than 100 % risk weight
- Deducted

Table DF-5: Credit Risk Mitigation: Disclosures for Standardised approaches

Qualitative Disclosures

The general qualitative disclosure requirement with respect to credit risk mitigation including: *a) Policies and processes for, and an indication of the extent to which the bank makes use of, on- and off-balance sheet netting;*

- policies and processes for collateral valuation and management;
- a description of the main types of collateral taken by the bank;
- the main types of guarantor counterparty and their credit worthiness; and
- information about (market or credit) risk concentrations within the mitigation taken

Quantitative Disclosures

(a) For each separately disclosed credit risk portfolio the total exposure (after, where applicable, on- or off-balance sheet netting) that is covered by eligible financial collateral after the application of haircuts.

(b) For each separately disclosed portfolio the total exposure (after, where applicable, on- or off-balance sheet netting) that is covered by guarantees/credit derivatives (whenever specifically permitted by RBI)

Table DF-6: Securitisation Exposures: Disclosure for Standardised Approach



Qualitative Disclosures

- (a) The general qualitative disclosure requirement with respect to securitisation including a discussion of:
- the bank's objectives in relation to securitisation activity, including the extent to which these activities transfer credit risk of the underlying securitised exposures away from the bank to other entities.
 - the nature of other risks (e.g. liquidity risk) inherent in securitised assets.
 - the various roles played by the bank in the securitisation process (For example: originator, investor, servicer, provider of credit enhancement, liquidity provider, swap provider, protection provider) and an indication of the extent of the bank's involvement in each of them.
 - a description of the processes in place to monitor changes in the credit and market risk of securitisation exposures (for example, how the behaviour of the underlying assets impacts securitisation exposures as defined in paragraph 5.16.1 of Basel III Capital Regulations).
 - a description of the bank's policy governing the use of credit risk mitigation to mitigate the risks retained through securitisation exposures;
 - A bank may have provided support to a securitisation structure in the form of an interest rate swap or currency swap to mitigate the interest rate/currency risk of the underlying assets, if permitted as per regulatory rules.
 - A bank may provide credit protection to a securitisation transaction through guarantees, credit derivatives or any other similar product, if permitted as per regulatory rules.





- (b) Summary of the bank's accounting policies for securitisation activities, including:
- whether the transactions are treated as sales or financings;
 - methods and key assumptions (including inputs) applied in valuing positions retained or purchased
 - changes in methods and key assumptions from the previous period and impact of the changes;
 - policies for recognising liabilities on the balance sheet for arrangements that could require the bank to provide financial support for securitised assets.
- (c) In the banking book, the names of ECAIs used for securitisations and the types of securitisation exposure for which each agency is used.

Quantitative Disclosures: Banking Book

- (a) The total amount of exposures securitised by the bank.
- (b) For exposures securitised losses recognised by the bank during the current period broken by the exposure type (e.g. Credit cards, housing loans, auto loans etc. detailed by underlying security).
- (c) Amount of assets intended to be securitised within a year.
- (d) Of (f), amount of assets originated within a year before securitisation.
- (e) The total amount of exposures securitised (by exposure type) and unrecognised gain or losses on sale by exposure type.
- (f) Aggregate amount of:
- on-balance sheet securitisation exposures retained or purchased broken down by exposure type and
 - off-balance sheet securitisation exposures broken down by exposure type
- (g) (i) Aggregate amount of securitisation exposures retained or purchased and the associated capital charges, broken down between exposures and further broken down into different risk weight bands for each regulatory capital approach
- (ii) Exposures that have been deducted entirely from Tier 1 capital, credit enhancing I/Os deducted from total capital, and other exposures deducted from total capital (by exposure type).

Quantitative Disclosures: Trading Book

- (a) Aggregate amount of exposures securitised by the bank for which the bank has retained some exposures and which is subject to the market risk approach, by exposure type.
- (b) Aggregate amount of:
- on-balance sheet securitisation exposures retained or purchased broken down by exposure type; and
 - off-balance sheet securitisation exposures broken down by exposure type.
- (c) Aggregate amount of securitisation exposures retained or purchased separately for:
- securitisation exposures retained or purchased subject to Comprehensive Risk Measure for specific risk; and
 - securitisation exposures subject to the securitisation framework for specific risk broken down into different risk weight bands.

Table DF-7: Market risk in trading Book



Qualitative disclosures

The general qualitative disclosure requirement for market risk including the portfolios covered by the standardised approach.

Quantitative disclosures

The capital requirements for:

- interest rate risk;
- equity position risk; and
- foreign exchange risk.

Table DF-8: Operational risk

Qualitative disclosures

In addition to the general qualitative disclosure requirement, the approach(es) for operational risk capital assessment for which the bank qualifies.

Table DF-9: Interest Rate Risk in the Banking Book (IRRBB)

Qualitative Disclosures

The general qualitative disclosure requirement including the nature of IRRBB and key assumptions, including assumptions regarding loan prepayments and behaviour of non-maturity deposits, and frequency of IRRBB measurement.

Quantitative Disclosures

The increase (decline) in earnings and economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring IRRBB, broken down by currency (where the turnover is more than 5% of the total turnover).

Table DF-10: General Disclosure for exposures related to counter party credit risk.

Qualitative Disclosures

The general qualitative disclosure requirement with respect to derivatives and CCR, including:

- Discussion of methodology used to assign economic capital and credit limits for counterparty credit exposures;
- Discussion of policies for securing collateral and establishing credit reserves;
- Discussion of policies with respect to wrong-way risk exposures;
- Discussion of the impact of the amount of collateral the bank would have to provide given a credit rating downgrade.

Quantitative Disclosures

- Gross positive fair value of contracts, netting benefits²³⁴, netted current credit exposure, collateral held (including type, e.g. cash, government securities, etc.), and net derivatives credit exposure²³⁵. Also report measures for exposure at default, or exposure amount, under CEM. The notional value of credit derivative hedges, and the distribution of current credit exposure by types of credit exposure²³⁶.
- Credit derivative transactions that create exposures to CCR (notional value), segregated between use for the institution's own credit portfolio, as well as in its intermediation activities, including the distribution of the credit derivatives products used²³⁷, broken down further by protection bought and sold within each product group



The Master Circular issued by Reserve Bank of India also contains other details required to be disclosed by the Banks. It may be noted that beyond disclosure requirements as set forth in these guidelines, banks are responsible for conveying their actual risk profile to market participants. The information banks disclose must be adequate to fulfil this objective. In addition to the specific disclosure requirements as set out in the guidelines, banks operating in India should also make additional disclosures in the following areas:

- Securitisation exposures in the trading book;
- Sponsorship of off-balance sheet vehicles;
- Valuation with regard to securitisation exposures; and
- Pipeline and warehousing risks with regard to securitisation exposures.

CAIIB Paper 2 (BFM) Module D Unit 3: Asset Classification and Provisioning Norms

Asset Classification

In August 1991, a high-level committee, **headed by M. Narasimham was appointed to examine various aspects of financial system.** One of the important recommendations of the Narasimham Committee was that balance sheets of the banks should be transparent and comply with international accounting standards.

The Committee recommended that banks should adopt uniform accounting practices in regard to income recognition and bad debts provisioning. In particular, income recognition of non-performing assets should not be on accrual basis but on record of recovery. The Committee also suggested that provisioning should depend upon a proper classification of assets, which in turn should be based on objective criteria.

Non-performing Assets

An asset, including a leased asset, becomes non-performing when it ceases to generate income for the bank. **A non-performing asset (NPA) is a loan or an advance where:**

- Interest and/ or installment of principal remain overdue for a period of more than 90 days in respect of a term loan.
- The account remains 'out of order' in respect of an Overdraft/Cash Credit (OD/CC).
- The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted.



- The Installment of principal or interest thereon remains overdue for two crop seasons for short duration crops.
- The installment of principal or interest thereon remains overdue for one crop season for long duration crops.
- The amount of liquidity facility remains outstanding for more than 90 days, in respect of a securitisation transaction undertaken in terms of guidelines on securitisation dated February 1, 2006.
- In respect of derivative transactions, if the overdue receivables representing positive mark-to market value of a derivative contract, remain unpaid for a period of 90 days from the specified due date for payment.

Banks should classify an account as NPA only if the interest charged during any quarter is not serviced fully within 90 days from the end of the quarter. The classification of an asset as NPA should be based on the record of recovery.

- **'Out of Order' Status:** An account should be treated as 'out of order' if the outstanding balance remains continuously in excess of the sanctioned limit/drawing power. In cases where the outstanding balance in the principal operating account is less than the sanctioned limit/drawing power, but there are no credits continuously for 90 days as on the date of Balance Sheet or credits are not enough to cover the interest debited during the same period, these accounts should be treated as 'out of order'.
- **'Overdue':** Any amount due to the bank under any credit facility is 'overdue' if it is not paid on the due date fixed by the bank.

Income Recognition

- **The policy of income recognition has to be objective and based on the record of recovery.** Internationally, income from non-performing assets (NPA) is not recognised on accrual basis, but is booked as income only when it is actually received. Therefore, the banks should not charge and take to income account interest on any NPA
- However, interest on advances against term deposits, NSCs, IVPs, KVPs and life policies may be taken to income account on the due date, provided adequate margin is available in the accounts.

Reversal of income



- If any advance, including bills purchased and discounted, becomes NPA as at the close of any year, interest accrued and credited to income account in the corresponding previous year, should be reversed or provided for, if the same is not realised. This will apply to government guaranteed accounts too.
- In respect of NPAs, fees, commission and similar income that have accrued should cease to accrue in the current period and should be reversed or provided for with respect to past periods too, if uncollected.

Leased Assets

The finance charge component of finance income (as defined in 'AS 19 Leases' issued by the Council of the Institute of Chartered Accountants of India (ICAI)] on the leased asset which has accrued and was credited to income account before the asset became non-performing, and remaining unrealised, should be reversed or provided for in the current accounting period.

Appropriation of recovery in NPAs

Interest realised on NPAs may be taken to income account provided the credits in the accounts towards interest are not out of fresh/additional credit facilities sanctioned to the borrower concerned.

In the absence of a clear agreement between the bank and the borrower for the purpose of appropriation of recoveries in NPAs (i.e., towards principal or interest due), banks should adopt an accounting principle and exercise the right of appropriation of recoveries in a uniform and consistent manner.

Asset Classification

Categories of NPAS

Banks are required to classify non-performing assets further into the following **three categories, based on the period for which the asset has remained non-performing and the realisability of the dues:**

- Substandard Assets
- Doubtful Assets
- Loss Assets



(a) Substandard Assets: With effect from 31 March 2005, a substandard asset would be one, which has remained NPA period less than or equal to 12 months. In such cases, the current net worth of the borrower/guarantor.

(b) Doubtful Assets: With effect from March 31, 2005, an asset would be classified as doubtful if it has remained in the substandard category for a period of 12 months. A loan classified as doubtful has all the weaknesses inherent in assets that were classified as substandard, with the added characteristic that the weaknesses make collection or liquidation in full - on the basis of currently known facts, conditions and values - highly questionable and improbable (doubtful).

(c) Loss Assets: A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some salvage or recovery value.

Accounts with Temporary Deficiencies

The classification of an asset as NPA should be based on the record of recovery. A Bank should not classify an advance account as NPA merely due to the existence of some deficiencies, which are temporary in nature, such as non-availability of adequate drawing power, based on the latest available stock statement, balance outstanding exceeding the limit temporarily, non-submission of stock statements and non-renewal of the limits on the due date, etc.

Upgradation of Loan Accounts Classified as NPAs: If arrears of interest and principal are paid by the borrower in the case of loan accounts classified as NPAs, the account should no longer be treated as non-performing and may be classified as standard' accounts.

Accounts Regularised near about the Balance Sheet Date: The asset classification of borrowal accounts where a solitary or a few credits are recorded before the balance sheet date should be handled with care and without scope for subjectivity. Where the account indicates inherent weakness on the basis of the data available, the account should be deemed as an NPA. In other genuine cases, the banks must furnish satisfactory



evidence to the Statutory Auditors/Inspecting Officers about the manner of regularisation of the account to eliminate doubts on their performing status.

Asset Classification to be Borrower-wise and not Facility-wise

- It is difficult to envisage a situation when only one facility to a borrower/one investment in any of the securities issued by the borrower becomes a problem credit/investment and not others. Therefore, all the facilities granted by a bank to a borrower and investment in all the securities issued by the borrower will have to be treated as NPA/NPI and not the particular facility/ investment or part thereof which has become irregular.
- If the debits arising out of devolvement of letters of credit or invoked guarantees are parked in a separate account, the balance outstanding in that account also should be treated as a part of the borrower's principal operating account for the purpose of application of prudential norms on income recognition, asset classification and provisioning.
- The bills discounted under LC favouring a borrower may not be classified as a Non-performing assets (NPA), when any other facility granted to the borrower is classified as NPA. However, in case documents under LC are not accepted on presentation or the payment under the LC is not made on the due date by the LC issuing bank for any reason and the borrower does not immediately make good the amount disbursed as a result of discounting of concerned bills, the outstanding bills discounted will immediately be classified as NPA with effect from the date when the other facilities had been classified as NPA.

Loans with Moratorium for Payment of Interest

- **In the case of bank finance given for industrial projects or for agricultural plantations**, etc. where moratorium period is available for payment of interest, payment of interest becomes 'due' only after the moratorium or gestation period is over. Therefore, such amounts of interest do not become overdue and hence do not become NPA, with reference to the date of debit of interest. They become overdue after the due date for payment of interest, if the interest remains uncollected.



- **In the case of housing loan or similar advances granted to staff members where interest is payable, after recovery of principal, interest need not be considered as overdue from the first quarter onwards.** Such loans/advances should be classified as NPA only when there is a default in repayment of instalment of principal or payment of interest on the respective due dates.

Agricultural advances

- A loan granted for short duration crops will be treated as NPA, if the instalment of principal or interest thereon remains overdue for two crop seasons. A loan granted for long duration crops will be treated as NPA, if the instalment of principal or interest thereon remains overdue for one crop season.

Government guaranteed advances

- The credit facilities backed by guarantee of the Central Government though overdue may be treated as NPA only when the Government repudiates its guarantee when invoked. This exemption from classification of Government guaranteed advances as NPA is not for the purpose of recognition of income.

Project Loans

Project Loan means any term loan which has been extended for the purpose of setting up of an economic venture. There are occasions when the completion of projects is delayed for legal and other extraneous reasons like delays in Government approvals etc. All these factors, which are beyond the control of the promoters, may lead to delay in project implementation and involve restructuring/reschedulement of loans by banks. Accordingly, the following asset classification norms would apply to the project loans before commencement of commercial operations.

For this purpose, all project loans have been divided into the following two categories:

- Project Loans for infrastructure sector
- Project Loans for non-infrastructure sector

Takeout Finance



- **Takeout finance is the product emerging in the context of the funding of long-term infrastructure projects.** Under this arrangement, the institution/the bank financing infrastructure projects will have an arrangement with any financial institution for transferring to the latter the outstanding in respect of such financing in their books on a predetermined basis.
- In view of the time-lag involved in taking-over, the possibility of a default in the meantime cannot be ruled out.

Post-shipment Supplier's Credit

- In respect of post-shipment credit extended by the banks covering export of goods to countries for which the Export Credit Guarantee Corporation's (ECGC) cover is available, EXIM Bank has introduced a guarantee-cum-refinance programme whereby, in the event of default, EXIM Bank will pay the guaranteed amount to the bank within a period of 30 days from the day the bank invokes the guarantee after the exporter has filed claim with ECGC.
- Accordingly, to the extent payment has been received from the EXIM Bank, the advance may not be treated as a non performing asset for asset classification and provisioning purposes.

Export Project Finance

- **In respect of export project finance, there could be instances where the actual importer has paid the dues to the bank abroad but the bank in turn is unable to remit the amount due to political developments such as war, strife, UN embargo, etc.**
- In such cases, where the lending bank is able to establish through documentary evidence that the importer has cleared the dues in full by depositing the amount in the bank abroad before it turned into NPA in the books of the bank, but the importer's country is not allowing the funds to be remitted due to political or other reasons, the asset classification may be made after a period of one year from the date the amount was deposited by the importer in the bank abroad.

Provisioning Norms



A non-performing asset (NPA) causes two-fold impact on the profitability of a bank. On one hand, the bank ceases to earn interest on this asset and thus is deprived of its legitimate income from the asset. On the other hand, the bank is required to make provisions for this asset, depending on the classification category of the asset and value of security, if any. This makes a further dent in the profitability of the bank. The Reserve Bank of India introduced the system of asset classification and provisioning in line with international practices for the first time in 1993. The norms have undergone several changes during the last 24 years.

Loss Assets

Loss assets should be written off. If loss assets are permitted to remain in the books for any reason, 100% of the outstanding should be provided for.

Doubtful Assets

- 100% of the extent to which the advance is not covered by the realisable value of the security to which the bank has a valid recourse and the realisable value is estimated on a realistic basis.
- In regard to the secured portion, provision may be made on the following basis, at the rates ranging from 25% to 100% of the secured portion depending upon the period for which the asset has remained doubtful:

Period for which the advance has remained in 'doubtful' category	Provision Requirement
Up to one year	25%
One to three years	40%
More than three years	100%

Substandard Assets

- **A general provision of 15% on total outstanding should be made without making any allowance for ECGC guarantee cover and securities available.** The 'unsecured exposures' which are identified as substandard would attract



additional provision of 10%, i.e., a total of 25% on the outstanding balance. The provisioning requirement for unsecured doubtful' assets is 100%.

Standard Assets

Banks are required to make general provision for standard assets at the following rates for the funded outstanding on global loan portfolio basis:

- Farm Credit to agricultural activities and Small and Micro Enterprises (SMEs) sectors at 0.25 per cent.
- Advances to Commercial Real Estate (CRE) Sector at 1.00 per cent.
- Advances to Commercial Real Estate - Residential Housing Sector (CRE - RH) at 0.75 per cent.
- Housing loans extended at teaser rates at 2 per cent in view of the higher risk associated with them. The provisioning rate shall be reduced to 0.40 per cent after 1 year date on which the rates are reset at higher rates if the accounts remain 'standard'.
- All other loans and advances not included in (a) (b) and (c) above at 0.40 per cent.

Provisioning Coverage Ratio

- Provisioning Coverage Ratio (PCR) is essentially the ratio of provisioning to gross non-performing assets and indicates the extent of funds a bank has kept aside to cover loan losses.
- From a macro-prudential perspective, bank should build up provisioning and capital buffers in good times i.e. when the profits are good, which can be used for absorbing losses in a downturn. This will enhance the soundness of individual banks, as also the stability of the financial sector. It was, therefore, decided that banks should augment their provisioning cushions consisting of specific provisions against NPAs as well as floating provisions, and ensure that their total provisioning coverage ratio, including floating provisions, is not less than 70 per cent. Accordingly, banks were advised to achieve this norm by the end of September, 2010.
- Majority of the banks had achieved PCR of 70 percent and had represented to RBI whether the prescribed PCR is required to be maintained on an ongoing



basis. The matter was examined and till such time RBI introduces a more comprehensive methodology of countercyclical provisioning taking into account the international standards as are being currently developed by Basel Committee on Banking Supervision (BCBS) and other provisioning norms.

RBI's Strategic Debt Restructuring (SDR)

RBI has given powers and a tool to the Banks vide its Circular of June 2015 to try and clean up their balance sheets through SDR. SDR allows banks to convert their debt or loans into equity holding in a defaulting company, change management if needed and also find a suitable buyer for the company or its assets so that the Bank can recover its dues. As per the reports published in newspapers, Banks have already used the SDR effectively and converted debt into equity in several cases.

Central Repository of Information on Large Credits (CRILC)

RBI has set up a Central Repository of Information on Large Credits (CRILC) to collect, store, and disseminate credit data to lenders. Accordingly, RBI's **Department of Banking Supervision (DBS)** has advised vide circular of February 13, 2014 on '**Central Repository of Information on Large Credits (CRILC) - Revision in Reporting**' that banks will be required to report credit information, including classification of an account as SMA to CRILC on all their borrowers having aggregate fund-based and non-fund based exposure of Rs.50 million and above with them (Rs. 5 crores). However, Crop loans are exempted from such reporting, but, banks should continue to report their other agriculture loans in terms of the above instruction. Banks need not report their interbank exposures to CRILC including exposures to NABARD, SIDBI, EXIM Bank and NHB.

As per RBI norms, before a loan account turns into a NPA, banks are required to identify incipient stress in the account by creating **stress sub-categories under the Special Mention Account category as given below:**

SMA Sub-Categories	Basis for classification



SMA-0	Principal or interest payment not overdue for more than 30 days but account showing signs of incipient stress)
SMA-1	Principal or interest payment overdue between 31 -60 days
SMA-2	Principal or interest payment overdue between 61-90 days

In cases where banks fail to report SMA (Special Mention Accounts) status of the accounts to CRILC or resort to methods with the intent to conceal the actual status of the accounts or evergreen the account, banks will be subjected to accelerated provisioning for these accounts and/or other supervisory actions as deemed appropriate by RBI. The current provisioning requirement and the revised accelerated provisioning in respect of such non performing accounts are as under:

Asset Classification	Period as NPA	Current Provisioning (%)	Revised accelerated Provisioning (%)
Sub-standard (secured)	Upto 6 months	15	No Change
	6 months to 1 year	15	25
Sub-standard (unsecured abinitio)	Upto 6 months	25 (other than infrastructure loans)	25
		20 (Infrastructure loans)	



	6 months to One year	25 (other than infrastructure loans) 20 (Infrastructure loans)	40
Doubtful I	2 nd year	25 (secured portion) 100 (unsecured portion)	40 (secure portion) 100 (unsecured portion)
Doubtful II	3 rd & 4 th year	40 (secured portion) 100 (unsecured portion)	100 (for both secured and unsecured portion)
Doubtful III	5 th year onwards	100	100

Scheme for Sustainable Structuring of Stressed Assets (shortly known as S4A):

- **S4A is the process of restructuring large ticket loans where the project is up and running. Here the lenders are required to separate a sustainable loan from an unsustainable loan.** The bank would convert the unsustainable debt into equity or equity related instruments.
- As a result, on one hand, the debt burden of the borrower is substantially reduced and on the other hand promoter's equity stake is also reduced. The idea behind the scheme is that banks would get the upside if the company regains its



old good form and it also gives the borrower a second chance to revive the company.

Insolvency and Bankruptcy Code, 2016 (IBC):

Government of India has enacted the IBC, which is the most comprehensive law and in the process has consolidated the existing laws and rules through a single legislature to help the banks to enforce insolvency and bankruptcy proceedings of distressed companies. The code includes the best practices following from around the world including USA and UK with regard to insolvency and bankruptcy.

This Code now would permit banks to push for recovery of money from a company within a period of 180 days, with a grace period of a further 90 days, if majority (i.e. 75%) of the creditors agrees. In a situation where the company does not meet the recovery terms, it will be liquidated involuntarily. **This will make it easier for banks and other financial institutions to deal with bad debts arising out of failed ventures.**

Some of the Key highlights of the Code are given below:

- The Code proposes to cover Insolvency of individuals, unlimited liability partnerships, Limited Liability partnerships (LLPs) and companies. The adjudicating authority for individuals and firms is the present DRTs and for corporates it would be National Company Law Tribunal (NCLT).
- Bankrupt individuals would be barred from contesting elections.
- Under the new law, a debtor could be jailed for up to five years for concealing property or defrauding creditors.
- It will strengthen hands of lenders to recover outstanding debts by setting a deadline of 180 days for companies to pay or face liquidation.
- To create Insolvency Professionals who will specialize in such cases, assist creditors, manage liquidation process. These professionals will in turn be certified by a newly created Insolvency Professional Agency.
- It will also create good data base and from this dissemination of information is possible related to the debtors.



- The entire operation of insolvency and bankruptcy through these various newly created agencies will be overseen by a regulator - Insolvency and Bankruptcy Board of India.
- Workers' salaries for up to 24 months will get first priority in case of liquidation of assets of a company, ahead of secured creditors.
- Money due to employees from PPF, gratuity fund will not be included in the estate of the bankrupt company or individual.

CAIIB BFM Module D Unit 4: Liquidity Management

Objectives of Liquidity Management

The objectives of asset liability management are two-fold: ensuring profitability and ensuring liquidity. Liquidity, which is represented by the quality and marketability of assets and liabilities, exposes the organisation to liquidity risk. Unlike other risks like interest rate risk, market risk, operational and technology risks and foreign exchange risks that can threaten the very solvency of the bank, liquidity risk is a normal aspect of everyday management of a financial institution. Only in extreme cases, liquidity risk problems translate into solvency risk problems.

Definition

- **Banks need liquidity to meet deposit withdrawals and to fund loan demands. The variability of loan demand and the variability of deposits determine a bank's liquidity needs.**
- Liquidity represents the ability to accommodate the decreases in liability and to fund the increases in assets. A bank has adequate liquidity when it can obtain sufficient funds either by increasing liabilities or by converting assets, promptly and at a reasonable cost. Liquidity is essential in all banks to compensate for the expected and the unexpected balance sheet fluctuations and to provide funds for growth.

Dimensions and Role Of Liquidity Risk Management

A Bank's liquidity management is the process of generating funds to meet its contractual or relationship obligations at reasonable prices at all times. New loan



demand, existing loan commitments, and deposit withdrawals are the basic contractual or relationship obligations that a bank must meet. ***Effective liquidity management by a bank serves the following important purposes:***

- It demonstrates the market place that the bank is safe and therefore capable of repaying its borrowings
- It enables bank to meet its prior loan commitments, whether formal or informal.
- It enables the bank to avoid unprofitable sale of assets. This function permits the bank to avoid sale of assets at fire sale prices, as opposed to going concern values to generate funds.
- It lowers the size of the default risk premium the bank must pay for funds. This function focuses on the reasonable price aspects of the definition of liquidity management. Bank's with strong balance sheets will be perceived by the market place as being liquid and safe. Such banks will be able to buy funds at risk premium as compared to the market's perceived creditworthiness.

Adequacy of a bank's liquidity position depends upon an analysis of the following factors:

- Historical funding requirements
- Current liquidity position
- Anticipated future funding needs
- Sources of funds
- Options for reducing funding needs
- Present and anticipated asset quality
- Present and future earnings capacity
- Present and planned capital position

As all banks are affected by changes in the economic climate, the monitoring of economic and money market trends is the key to liquidity planning. A sound financial management can minimise the negative effects of these trends while accentuating the positive ones.

The factors that may affect a bank's liquidity include:

- A decline in earnings



- An increase in non-performing assets
- Deposit concentrations
- Downgrading by rating agencies
- Expanded business opportunities
- Acquisitions
- New tax initiatives

To provide funds to satisfy its funding needs, a bank must perform one or a combination of the following:

- Dispose of liquid assets
- Increase short-term borrowings
- Decrease holdings of less liquid assets
- Increase liabilities of a term nature
- Increase capital funds

Types of Liquidity Risks

Liquidity exposure can stem from both internally institution specific) and externally generated factors. External liquidity risks can be geographic, systemic or instrument-specific. Internal liquidity risk relates largely to perceptions of an institution in its various markets: local, regional, national or international. Other categories of liquidity risk are:

- **Funding Risk:** Need to replace net outflows due to unanticipated withdrawal (pre-mature closure of deposits)/non-renewal of deposits (wholesale and retail), arises due to:
 - Fraud causing substantial loss
 - Systemic risk
 - Loss of confidence
 - Liabilities in foreign currencies
- **Time Risk:** Need to compensate for non-receipt of expected inflows of funds, arises due to:
 - Severe deterioration in the asset quality



- Standard assets turning into non-performing assets and/or borrowers' defaulting to repay as per the terms of repayment
 - Temporary problems in recovery
 - Time involved in managing liquidity
- **Call Risk:** Crystallisation of contingent liabilities and inability to undertake profitable business opportunities when desirable, arises due to:
- Conversion of non-fund based limit into fund-based
 - Swaps and options

Measuring and Managing Liquidity Risk

Measuring and managing liquidity are among the most vital activities of commercial banks. By assuring a bank's ability to meet its liabilities as they become due, liquidity management can reduce the probability of an irreversible adverse situation developing. Even in cases where crisis develops because of a problem elsewhere at a bank, such as a severe deterioration in asset quality or the uncovering of fraud, or where a crisis reflects a generalised loss of confidence in financial institutions, the time available to a bank to address the problem will be determined by its liquidity. Indeed the importance of liquidity transcends the individual institution, since a liquidity shortfall at a single institution can have system-wide repercussions. For this reason, the analysis of liquidity requires bank managements to measure not only the liquidity positions of banks on an ongoing basis but also to examine how funding requirements are likely to evolve under crisis scenarios.

In particular, good management information systems, central liquidity control, analysis of net funding requirements under alternative scenarios, diversification of funding sources, and contingency planning are crucial elements of strong liquidity management at a bank of any size or scope of operations.

The following steps are necessary for managing liquidity risk in banks:

- Developing a structure for managing liquidity risk
- Setting tolerance level and limit for liquidity risk
- Measuring and managing liquidity risk

Developing a Structure for Managing Liquidity Risk



Sound liquidity risk management involves setting a strategy for the bank ensuring effective board and senior management oversight as well as operating under a sound process for measuring, monitoring and controlling liquidity risk.

Virtually every financial transaction or commitment has implications for a bank's liquidity. Moreover, the transformation of illiquid assets into more liquid ones is a key activity of banks. Thus, a bank's liquidity policies and liquidity management approach should form the key elements of a bank's general business strategy. Understanding the context of liquidity management involves examining a bank's managerial approach to funding and liquidity operations and its liquidity planning under alternative scenarios.

- The liquidity strategy should set out the general approach the bank will have to adopt to improve the liquidity including various quantitative and qualitative targets.
- The strategy should also address the bank's goal of protecting financial strategy and the ability to withstand stressful events in the market place.
- It should enunciate specific policies on particular aspects of liquidity management like composition of assets and liabilities, maintenance of cumulative gaps over certain periods and the approach to managing liquidity in different currencies and from one country to another.
- The strategy of managing liquidity risk should be communicated throughout the organisation. All business units within the bank that conduct activities having an impact on liquidity should be fully aware of the liquidity strategy and should operate under the approved policies and procedures.
- The Board should monitor the performance and liquidity risk profile of the bank and periodically review information that is timely and sufficiently detailed to allow them to understand and assess the liquidity risk facing the bank's key portfolios and the bank as a whole.
- A Bank should have a liquidity management structure in place to execute effectively the liquidity strategy, policies and procedures. The responsibility of managing the overall liquidity of the bank should be placed with a specific identified group within the bank. This might be in the form of an Asset Liability Committee comprising of senior management, the treasury function or a risk management department.



Setting Tolerance Level and Limit for Liquidity Risk

Bank's management should set limits to ensure liquidity and these limits should be reviewed by supervisors. Alternatively, supervisors may set the limits. Limits could be set on the following:

- The cumulative cash flow mismatches (i.e., the cumulative net funding requirement as a percentage of total liabilities) over particular periods – next day, next week, next fortnight, next month, next year. These mismatches should be calculated by taking a conservative view of marketability of liquid assets, with a discount to cover price volatility and any drop in price in the event of a forced sale, and should include likely outflows as a result of draw-down of commitments, etc.
- Liquid assets as a percentage of short-term liabilities. The assets included in this category should be those which are highly liquid, i.e., only those assets which are judged to be having a ready market even in periods of stress.
- A limit on loan to deposit ratio.
- A limit on loan to capital ratio.
- A general limit on the relationship between anticipated funding needs and available sources for meeting those needs.
- Primary sources for meeting funding needs should be quantified.
- Flexible limits on the percentage reliance on a particular liability category, (e.g., certificates of deposits or high cost deposits should not account for more than a certain percentage of total liabilities).
- Limits on the dependence on individual customers or market segments for funds in liquidity position calculations.
- Flexible limits on the minimum/maximum average maturity of different categories of liabilities.
- Minimum liquidity provision to be maintained to sustain operations.

An example of setting tolerance level for a bank:

1. To manage the mismatch levels so as to avert wide liquidity gaps - The residual maturity profile of assets and liabilities will be such that mismatch level for time bucket of 1-14 days and 15-28 days remains around 80% of cash outflows in each time bucket.



2.To manage liquidity and remain solvent by maintaining short-term cumulative gap up to one year (short-term liabilities - short-term assets) at 15% of total out flow of funds.

Measuring and Managing Liquidity Risk

Measuring and managing funding requirement can be done through two approaches.

- Stock approach
- Flow approach

Stock Approach (to Measuring and Managing Liquidity)

Stock approach is based on the level of assets and liabilities as well as off-balance sheet exposures on a particular date. The following ratios are calculated to assess the liquidity position of a bank.

- **Ratio of Core Deposit to Total Assets – Core Deposit/Total Assets:** The higher the ratio, the better it is because core deposits are treated to be a stable source of liquidity. Core deposit will constitute deposits from the public in the normal course of business.
- **Net Loans to Totals Deposits Ratio - Net Loans/Total Deposits:** It reflects the ratio of loans to public deposits or core deposits. Total loans in this ratio represent net advances after deduction of provision for loan losses and interest suspense account. Loan is treated to be a less liquid asset and therefore, the lower the ratio, the better it is.
- **Ratio of Time Deposits to Total Deposits – Time Deposits/Total Deposits:** Time deposits provide a stable level of liquidity and negligible volatility. Therefore, the higher the ratio, the better it is.
- **Ratio of Volatile Liabilities to Total Assets - Volatile Liabilities/Total Assets:** Volatile liabilities like market borrowings are to be assessed and compared with the total assets. Higher portion of volatile assets will cause higher problems of liquidity. Therefore, the lower the ratio, the better it is.
- **Ratio of Short-Term Liabilities to Liquid Assets:** Short-term liabilities are required to be redeemed at the earliest. Therefore, they will require ready liquid assets to meet the liability. It is expected to be lower in the interest of liquidity.



- **Ratio of Liquid Assets to Total Assets - Liquid Assets/Total Assets:** Higher level of liquid assets in total assets will ensure better liquidity. Therefore, the higher the ratio, the better it is. Liquid assets may include bank balances, money at call and short notice, inter-bank placements due within one month, securities held for trading and available for sale with a ready market.
- **Ratio of Short-Term Liabilities to Total Assets - Short-term Liabilities/Total Assets:** Short-term liabilities may include balances in current account, volatile portion of savings accounts leaving behind core portion of saving which is constantly maintained and deposits maturing within a short period of one month. A lower ratio is desirable.
- **Ratio of Prime Asset to Total Asset - Prime Asset/Total Assets:** Prime assets may include cash balances the bank and balances with banks including central bank which can be withdrawn at any time with without any notice. The more or higher the ratio, the better it is.
- **Ratio of Market Liabilities to Total Assets - Market Liabilities/Total Assets:** Market liabilities may include money market borrowings, inter-bank liabilities repayable within a short period. The lower ratio, the better it is.

(i) (Volatile liabilities - Temporary Assets) (Earning Assets - Temporary Assets)

(ii) Core deposits/Total Assets

(iii) (Loans + mandatory SLR + mandatory CRR + Fixed Assets)/Total Assets

(iv) (Loans + mandatory SLR + mandatory CRR + Fixed Assets)/Core Deposits

(v) Temporary Assets/Total Assets

(vi) Temporary Assets/Volatile Liabilities

(vii) Volatile Liabilities/Total Assets

Flow Approach (to Measuring and Managing Liquidity)

The framework for assessing and managing bank liquidity through flow approach has three major dimensions:

- Measuring and managing net funding requirements
- Managing market access



- Contingency planning

(a) Measuring and Managing Net Funding Requirements

The flow approach is the basic approach being followed by Indian banks for measuring and managing liquidity risk. It is also called the gap method of measuring and managing liquidity and requires the preparation of structural liquidity gap report. In this method, net funding requirement is calculated on the basis of residual maturities of assets and liabilities.

These aspects will be elaborated under the following heads:

- The Maturity Ladder
- Alternative Scenarios
- Measuring Liquidity Over the Chosen Time-frame
- Assumptions used in Determining Cash Flows

The Maturity Ladder: A maturity ladder should be used to compare a bank's future cash inflows to its future cash outflows over a series of specified time periods. Cash inflows arise from maturing assets, saleable non-maturing assets and established credit lines that can be tapped. Cash outflows include liabilities falling due and contingent liabilities, especially committed lines of credit that can be drawn down.

Alternative Scenarios: This involves evaluating whether a bank has sufficient liquidity and depends in a large measure on the behaviour of cash flows under different conditions. Analysing liquidity thus entails laying out 'what if' scenarios.

There may be three scenarios for a bank in connection with management of liquidity which provide useful benchmarks:

- General Market Conditions
- Bank-specific Crisis
- General Market Crisis

Measuring Liquidity Over the Chosen Timeframe: The evolution of a bank's liquidity profile under one or more scenarios can be tabulated or portrayed graphically, by cumulating the balance of expected cash inflows and cash outflows at several time points. A stylised liquidity graph can be constructed, enabling the evolution of the



cumulative net excess or deficit of funds to be compared under the three scenarios in order to provide further insights into a bank's liquidity and to check how consistent and realistic the assumptions are for the individual bank.

Assumptions used in Determining Cash Flows: Liquidity risk planning is done for the future scenarios and therefore it is not always possible to predict with certainty as to what will happen in future. It all depends upon certain assumptions which require to be reviewed frequently to determine their continuing validity for making predictions for liquidity risk management. The total number of major liquidity assumptions to be made, however, is fairly limited and fall under the categories of (a) assets, (b) liabilities, (c) off-balance-sheet activities, and (d) others.

(b) Managing Market Access

Some liquidity management techniques are viewed not only for their influence on the assumptions used in constructing maturity ladders, but also for their direct contribution to enhancing a bank's liquidity. Thus, it is important for a bank to review periodically its efforts to maintain the diversification of liabilities, to establish relationships with liability holders and to develop asset-sales markets.

As a check for adequate diversification of liabilities, a bank needs to examine the level of reliance on individual funding sources, by instrument type, nature of the provider of funds, and geographic market.

(c) Contingency Planning

A bank's ability to withstand a net funding requirement in a bank-specific or general market liquidity crisis can also depend on the calibre of its formal contingency plans.

Effective contingency plans should address two major questions:

- Does management have a strategy for handling a crisis?
- Does management have procedures in place for accessing cash in emergency?

The degree to which a bank has addressed these questions realistically, provides management with additional insight as to how a bank may fare in a crisis.

Strategy for Handling a Crisis: A game plan for dealing with a crisis should consist several components. Most important are those that involve managerial coordination. A



contingency plan needs to spell out procedures to ensure that information flows remain timely and uninterrupted, and that the information flows provide senior management with the precise information it needs in order to make quick decisions. A clear division of responsibility must be set out so that all personnel understand what is expected of them during a crisis. Confusion in this area can waste resources on certain issues and omit coverage on others.

Backup Liquidity for Emergency Situations: Contingency plans should also include procedures for making up cash flow shortfalls in emergency situations. Banks have several sources of such funds available to them, including previously unused credit facilities and credit lines from the domestic central bank. Depending on the severity of a crisis, a bank may choose – or be forced to use one or more of these sources. The plan should spell out as clearly as possible the amount of funds a bank has available from these sources, and under what scenarios a bank could use them.

Reserve Bank of India Guidelines for Maturity Buckets Reserve Bank of India has given a framework for bucket-wise classification of assets and liabilities to be followed by Indian banks. These are the guiding factors for the banks. **All the assets and liabilities are classified into ten time buckets as given below:**

- Tomorrow
- 2-7 days
- 8-14 days
- 15-28 days
- 29 days and up to 3 months
- Over 3 months and up to 6 months
- Over 6 months and up to 1 year
- Over 1 year and up to 3 year
- Over 3 years and up to 5 years
- Over 5 years

CAIIB BFM Module D Unit 5: Interest Rate Risk Management

Essentials Of Interest Rate Risk



Interest rate risk rates is the exposure of a bank's financial condition to adverse movements in interest rates. Accepting this risk is a normal part of banking and can be an important source of profitability and shareholder value. However, excessive interest rate risk can pose a significant threat to a bank's earnings and capital base. Changes in interest rates affect a bank's earnings by changing its net interest income and the level of other interest sensitive income and operating expenses. Changes in interest rates also affect the underlying value of the bank's assets, liabilities, and off-balance-sheet (OBS) instruments because the present value of future cash flows (and in some cases, the cash flows themselves) change when interest rates change.

Interest rate risk refers to volatility in Net Interest Income (NII) or in variations in Net Interest Margin (NIM), i.e., NII divided by Earning Assets due to changes in interest rates. In other words, interest rate risk arises from holding assets and liabilities with different principal amounts, maturity dates or dates, i.e., 'rollover rates'.

Sources Of Interest Rate Risk

Gap or Mismatch Risk

A gap or mismatch risk arises from holding assets and liabilities with different principal amounts, maturity dates or repricing dates, thereby creating exposure to changes in the level of interest rate. The gap is the difference between the amount of assets and liabilities on which the interest rates are reset during a given period. In other words, when assets and liabilities fall due to repricing in different periods, they can create a mismatch. Such a mismatch or gap may lead to gain or loss depending upon how interest rates in the market tend to move.

Example 1

- A bank holds Rs. 100 crore liabilities at 9% of one year maturity to fund assets of Rs. 100 crore at 10% with two year maturity. Over the first year, bank is getting a profit spread of 1% amounting to Rs. 1 crore. However, its profits for second year are not certain. If interest rate remains unchanged, the profits will continue to be the same. However, since the liabilities are for one year and need to be rolled over for second year, bank is exposed to interest rate risk.



- If the interest rate on liabilities increase to 11% in second year, bank would be incurring a loss of 1%, i.e., Rs. 1 crore in the second year. Conversely bank is again exposed to interest rate risk if it holds shorter term assets relative to liabilities, i.e., liabilities maturing in two years against assets maturing in one year. It then faces the uncertainty of interest rate at which it can reinvest funds after the first year for further one year matching the liabilities maturity.

Basis Risk

In a perfectly matched gap position, there is no timing difference between the repricing dates, i.e. the magnitude of change in the deposit rates would be exactly matched by the magnitude of change in the loan rate. However, interest rate of two different instruments will seldom change by the same degree during the same period of time. The risk that the interest rate of different assets and liabilities may change in different magnitudes is called basis risk. The under noted table shows how the basis risk occurs.

Gap Statement of XYZ Bank (Amt. In Crore of Rs.)			
Repricing Assets		Repricing Liabilities	
Call Money	50	Savings Deposit	50
Cash credit	40	Fixed Deposits	50
	90		100
Gap (-)	10		

The bank as of now has a negative gap of Rs. 10 crore. In case the interest rate falls by 1%, then as per the traditional gap management (assuming rates on all assets and liabilities change by 1%- parallel shift), the bank's NII should improve by Rs. 1 crore. Instead of falling in the same magnitude, assume that the rate on call money lending falls by 1%, the rate on cash credit falls by 0.7%, the rate on savings deposit falls by 0.5% and the rate on fixed deposits falls by 0.4%. The undernoted calculations indicate



that the bank's NII would deteriorate rather than improving in terms of the assumption of gap management.

	Fall in Rates	Fall in Amount
Call Money	50 x 1.0%	Rs. 0.50 crore
Cash Credit	40 x 0.7%	Rs. 0.28 crore
A. Decrease in interest income	(-)	Rs. 0.78 crore
Savings deposit	50 x 0.5%	Rs. 0.25 crore
Fixed deposit	50 x 0.4%	Rs. 0.20 crore
B. Decrease in interest expenses	(+)	Rs. 0.45 crore
Loss in Net Interest	(-)	Rs. 0.33 crore
Income: A-B		

Net Interest Position Risk

The bank's net interest position also exposes the bank to an additional interest rate risk. If a bank has more assets on which it earns interest than its liabilities on which it pays interest, interest rate risk arises when interest rate earned on assets changes while the cost of funding of the liabilities remains the same.

Thus, the bank with a positive net interest position will experience a reduction in NII as interest rate declines and an expansion in NII as interest rate rises.

A large positive net interest position accounts for most of the profit generated by many financial institutions.

Embedded Option Risk

Large changes in the level of market interest rates create another source of risk to banks profit by prepayment of loans and bonds (with put or call options) and/or premature withdrawal of deposits before their stated maturity dates. In cases where there is no penalty for prepayment of loans, the borrowers have a natural tendency to pay off their loans when a decline in interest rate occurs. In such cases, the bank will receive only a lower NII.

Example



Take the case of a bank which has disbursed a 90 days loan at the rate of 10% which is funded through a 90-day CD at the rate of 8%.

In case the rate of interest decline to 9% after 30 days and the borrower prepays his loan immediately and the bank receives only 200 basis points NII for 30 days rather than the anticipated 90 days. In the remaining 60 days of the 90 days term, the NII will be only 100 basis points, as the Bank would be reinvesting the funds at 9%.

The embedded option risk is becoming a reality in India and is experienced in volatile situations. The faster and higher the magnitude of changes in the interest rate, the greater will be embedded options the risk to the bank's NII.

Yield Curve Risk

An yield curve is a line on a graph plotting the yield of all maturities of a particular instrument. Yield curve changes its slope and shape from time to time depending upon repricing and various other factors. As the economy moves through the business cycle, the yield curve changes rather frequently. At the intervention of Reserve Bank of India, the yield curve can be twisted to the desired direction by altering the yields on government stocks or different maturities by RBI.

Example

- To illustrate how a change in the shape of yield curve affects the bank's NII, let us assume that XYZ Bank, used 3 years floating rate fixed deposits for funding 3 year floating rate loans (the deposits and loans are repriced at quarterly intervals). If the bank pays 100 basis point above the 12.50% (91 days Treasury Bills rate), i.e. 13.5% to fixed deposits and charges 300 basis point, above the 364 days Treasury Bills rate of 13%, i.e., 16% on its loans, a NII of 250 basis points is produced.
- If the yield curve turns inverted during the next repricing date with the 91 days TBs rate increasing to 14% and 364 days TBs rate remaining at 13% and the spread relationship or deposits and loans to TBs remains constant, the NII will be reduced to 100 basis points, i.e., $(16\% - 14\% + 1\% = 1\%)$.

Price Risk



Price risk occurs when assets are sold before their maturity dates. In the financial market, bond prices and bond yields are inversely related. For example, the price of 10-year 14% Government of India stock will receive only lower price than originally paid for, when coupon or stocks of similar maturity has gone up to 15% in the market. The price risk is closely associated with the trading book which is created for making profit out of short-term movements in interest rates,

Reinvestment Risk

Uncertainty with regard to interest rate at which the future cash flows can be reinvested is called reinvestment risk.

Example

- Suppose, XYZ Bank has a zero coupon deposit of Rs. 10,000 and it promises to double the amount with 7 years and uses the funds for investing in a 7-year bond at an annual coupon of 12%.
- In case, the interest rate falls to 10% after one year, the bank could reinvest the coupon cash flows only at 10% against the anticipation of reinvesting the coupon at a fixed rate of 12%. Due to this reinvestment risk, the bank will find it difficult to pay the interest on deposit on maturity.

Effects Of Interest Rate Risk

As the discussion above suggests, changes in interest rates can have adverse effects both on a bank's earnings and its economic value. This has given rise to two separate, but complementary, perspectives for assessing a bank's interest rate risk exposure, i.e.,

- Earnings perspective
- Economic perspective
- Embedded losses

Earnings Perspective

- **In the earnings perspective, the focus of analysis is the impact of changes in interest rates on accrual or reported earnings.** This is the traditional approach to interest rate risk assessment taken by many banks.



- Variation in earnings is an important focal point for interest rate risk analysis because reduced earnings or outright losses can threaten the financial stability of an institution by undermining its capital adequacy and by reducing market confidence.

Economic Value Perspective

- **Variation in market interest rates can also affect the economic value of a bank's assets, liabilities and off-balance-sheet (OBS) positions.** Thus, the sensitivity of a bank's economic value to fluctuations in interest rates is a particularly important consideration of shareholders, management and supervisors alike.

Embedded Losses

- **The earnings and economic value perspectives discussed thus far focus on how future changes in interest rates may affect a bank's financial performance.**
- When evaluating the level of interest rate risk, it is willing and able to assume, a bank should also consider the impact that past interest rates may have on future performance.
- In particular, instruments that are not marked to market may already contain embedded gains or losses due to past rate movements. These gains or losses may be reflected over time in the bank's earnings.

Measurement Of Interest Rate Risk

Before risk can be managed, it must be identified and quantified. Unless the quantum of risk inherent in a bank's balance sheet is measured, it is impossible to measure the degree of risk to which the bank is exposed. It is also equally impossible to develop effective risk management strategies/techniques without being able to understand the correct risk position of the bank.

In general, but depending on the complexity and range of activities of the individual bank, banks should have interest rate risk measurement systems that capture all material sources of interest rate risk and that assess the effects of rate changes on both earnings and economic value. Measurement systems should:



- Assess all material interest rate risks associated with a bank's assets, liabilities, and OBS positions
- Utilise generally accepted financial concepts and risk measurement techniques
- Have well-documented assumptions and parameters

Interest Rate Risk Measurement Techniques

Banks use various techniques to measure the exposure of earnings and of economic value to changes in interest rates. The variety of techniques ranges from calculations that rely on simple maturity and repricing tables, to static simulations based on current on- and off-balance-sheet positions, to highly sophisticated dynamic modelling techniques that incorporate assumptions about the behaviour of the bank and its customers in response to changes in the interest rate environment.

- Repricing Schedules
- Gap Analysis
- Duration
- Simulation Approaches

Strategies For Controlling Interest Rate Risk

Interest rate risk management process should begin with strategies which change the bank's interest rate sensitivity by altering various components of the balance sheet. The actual management of banks' assets and liabilities focuses on controlling the gap between Rate Sensitive Assets and Rate Sensitive Liabilities. Some banks pursue a strategy of matching assets and liabilities maturities as closely as possible to reduce the gap to zero and insulate the NII from the volatility of interest rate. Aggressive bankers, however, vary the gap in tune with their interest rate forecasts. If they expect increase in interest rates, they widen the gap by repricing the assets more frequently than their liabilities.

The banks have been following various balance sheet strategies to limit the shocks of interest rate volatility. The basic strategy of the banks is focussed on bridging the gap position. The strategies for reducing the assets and liabilities sensitivity are:

Reduce Asset Sensitivity



- Extend investment portfolio maturities
- Increase floating rate deposits
- Increase fixed rate lending
- Sell floating rate loans
- Increase short-term borrowings
- Increase long-term lendings
- Reducing investment portfolio maturities
- Increase floating rate lendings
- Increase long-term deposits
- Increase short-term lendings

The other options with available to the banks for managing interest rate risks are:

- Match long-term assets preferably with non-interest bearing liabilities.
- Match repricable assets with a similar repricable liabilities.
- Use Forward Rate Agreements, Swaps, Options and Financial Futures to construct synthetic securities and thus hedge against any exposure to interest rate risk.
- Maturity mismatch is accentuated by proliferation of Performing Assets (NPAs) and loan renegotiations. Sound loaning policies and effective post-sanction monitoring and recovery steps can contain the volume of NPAs. Large volume of NPA in the balance sheet entails carrying of non-interest earning assets, funded out of volatile liabilities.

Controls and Supervision Of Interest Rate Risk Management

Banks are required to have adequate internal controls to ensure the integrity of their interest rate risk management process. These internal controls should be an integral part of the institution's overall system of internal control. They should promote effective and efficient operations, reliable financial and regulatory reporting, and compliance with relevant laws, regulations, and institutional policies. ***An effective system of internal control for interest rate risk includes:***

- A strong control environment
- An adequate process for identifying and evaluating risk



- The establishment of control activities such as policies, procedures, and methodologies
- Adequate information systems
- Continual review of adherence to established policies and procedures

Sound Interest Rate Risk Management Practices

Sound interest rate risk management involves the application of four basic elements in the management of assets, liabilities and OBS instruments:

- Appropriate board and senior management oversight
- Adequate risk management policies and procedures
- Appropriate risk measurement, monitoring, and control functions
- Comprehensive internal controls and independent audits

Board and Senior Management Oversight of Interest Rate Risk

- **Effective oversight by a bank's board of directors and senior management is critical to a sound interest rate risk management process.**
- It is essential that these individuals are aware of their responsibilities with regard to interest rate risk management and that they adequately perform their roles in overseeing and managing interest rate risk.

Board of Directors

- **In order to carry out its responsibilities, the board of directors in a bank should approve strategies and policies with respect to interest rate risk management and ensure that senior management takes the steps necessary to monitor and control these risks consistent with the approved strategies and policies.**
- The board of directors should be informed regularly of the interest rate risk exposure of the bank in order to assess the monitoring and controlling of such risk against the board's guidance on the levels of risk that are acceptable to the bank.

Senior Management



Senior management must ensure that the structure of the bank's business and the level of interest rate risk it assumes are effectively managed that appropriate policies and procedures are established to control and limit these risks, and that resources are available for evaluating and controlling interest rate risk.

Senior management is also responsible for maintaining:

- Appropriate limits on risk taking
- Adequate systems and standards for measuring risk
- Standards for valuing positions and measuring performance
- A comprehensive interest rate risk reporting and interest rate risk management
- Review process
- Effective internal controls

Lines of Responsibility and Authority for Managing Interest Rate Risk

- Banks should clearly define the individuals and/or committees responsible for managing interest rate risk and should ensure that there is adequate separation of duties in key elements of the risk management process to avoid potential conflicts of interest.
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CAIIB BFM Module D Unit 6: RAROC and Profit Planning

Profit Planning

Profit planning in a bank essentially involves balance sheet management; covering credit, investment and non-fund based income. Banks' income arises from



three sources, viz. interest income, feebased income and treasury income. Interest income is derived from lending as well as investments in securities, bonds etc.

TABLE				
	I	II	III	IV
Investment in Govt. Securities with yield 6% and risk weight of 0%.	1000	400	300	300
Lending to AAA rated customers with yield 8% p.a & risk weigh of 20%	0	600	300	300
Lending to AA rated customers with Yield of 10% p.a. & risk weight of 50%.	0	0	400	200
Lending to A rated customers with yield of 12% p.a. and risk weight of 100%	0	0	0	200
Total Investment	1000	1000	1000	1000
YIELD				
TOTAL (Amount X Yield)	60	72	82	86
Yield %	6%	7.20%	8.20%	8.60%
Risk Weight Assets#	0	120	260	360
Capital Required (@8%)	0	9.60	20.8	28.8

Thus, you would observe that risk would increase for lending to lower rated customers resulting in an increased need for capital and also improved yield on the assets. Banks need to optimise the investment and lending portfolio to earn the best possible returns for a given capital level.



Banks have to take into account the effect of NPA on the interest income and thereby on the profitability. NPAs do not generate income and therefore bring down the yield on advances. Also, under Basel-II/III regime, the risk weightage of such assets is higher, thereby forcing a bank to maintain higher capital. Thus, NPAs have a two-fold effect, reduction in income and need for additional capital. Hence, return on capital or profitability gets further deteriorated.

Thus, every effort to rationalise this segment of expenditure is made. In nutshell, profitability is a function of six variables:

- Interest income
- Fee-based income
- Trading income
- Interest expenses
- Staff expenses
- Other operating expenses

Maximisation of the first three variables and minimisation of the last three variables are the requisites to maximise profitability. All the six factors are dependent on each other and achieving the optimum level is the requirement here.

Economic Capital

- The expected loss is a measure of the reserves necessary to guard against future losses. The pricing of products should provide a buffer against expected losses and the unexpected loss is a measure of the **amount of economic capital required to support the banks financial risk. This capital is also called risk capital.**
- Some activities may require large amounts of risk capital, which in turn requires higher returns. This is the essence of risk adjusted return on capital (RAROC) measures. The central objective is to establish benchmarks to evaluate the economic return of business activities. This includes transactions, products, customer trades, and business lines, as well as the entire business.

Risk Capital



RAROC is a part of the family of the risk-adjusted performance measures (RAPM). Consider, for instance, two traders such that each returned a profit of \$10 million over the last year. The first is a foreign currency trader, and second a bond trader. The question is, how do we compare their performance? This is important in providing appropriate compensation as well as deciding which line of activity to expand.

Assume the FX and bond traders have notional amount and volatility as described below. The bond trader deals in larger amounts, \$200 million, but in a market with lower volatility, at 4% per annum, against \$100 million and 12% for the FX trader. The risk capital can be computed as a VAR measure, say at the 99% level over a year, as Bankers Trust did. Assuming normal distributions, this translates into a risk capital of

$$\text{RC} = \text{VAR} = \$100,000,000 \times .12 \times 2.33 = \$28 \text{ million}$$

The risk adjusted performance is then measured as the profit divided by the risk capital,

$$\text{RAPM} = \text{Profit/RC}$$

Thus the bond trader is actually performing better as the FX trader, as the activity requires less risk capital. More generally, risk capital should account for credit risk, operational risk, and any interaction.

RAROC Methodology

Risk Management: Includes the measurement of portfolio exposure, the volatility and correlations of the risks factors.

Capital Allocation: This requires the choice of a confidence level and horizon for the VAR measure, which translates into an economic capital.

Performance Measurement: This requires the adjustment of performance for the risk capital.

Performance measurement can be based on RAPM method. For instance, Economic Value Added (EVA) focuses on the creation of value during a particular period in excess of the required return on capital. EVA measures the residual economic profit as

$$\text{EVA} = \text{Profit} - (\text{Capital} \times k)$$



Where profits are adjusted for the cost of economic capital, with k defined as the discount rate. Assuming the whole worth is captured by the EVA, the higher the EVA, the better the product or project.

NaBFID

- NaBFID has been set up as a Development Financial Institution (DFI) to support the development of long-term infrastructure financing in India. With this, India has seen the birth of a new entity in the financial market.
- The National Bank for Financing Infrastructure and Development (NaBFID) Act, 2021 received the assent of the President on 28 March, 2021 and was enforced on 19 April, 2021.
- Unlike banks, DFIs do not accept deposits from people. They source funds from the market, government, as well as multi-lateral institutions, and are often supported through government guarantees.

Case Study (BFM)

1) On 1 June 2016, a customer requests to book forward contract, for retirement of import bill for USD 100,000.00, due for payment on 15 September 2016. Given rates: Spot USD/INR 68.27/29, forward premium - Spot June: 10/12, Spot July 21/23, Spot August 32/34, Spot Sept. 43/45 and August to 15th Sept. 6/7 Charge Margin of 0.20% on the spot rate.

Answer

Being a merchant sale forward booking transaction, rate would be calculated as under:

USD/INR spot to be taken as
68.29

Premium payable:

Spot August	34 paise	
August - 15th Sept.	07 paise	
Add: Total premium	<u>41 paise</u>	0.41



Thus IB forward rate would be:	68.70
Add: Margin 0.20%	0.14
Rate for customer	<u>68.84</u>

2) Your foreign correspondent maintaining a NOSTRO Rupee account with your bank, wants to fund his account by purchase of Rs. 30.00 million, against US dollars. Assuming that the USD/INR interbank market is at 68.2550/2650, what rate would be quoted to the correspondent, ignoring exchange margin. Calculate amount of USD you would receive in your USD NOSTRO account, if the deal is struck.

Answer

The transaction is to sell Rs. 30.00 million, against US dollars, and the transaction is equivalent to an Inward Remittance for the bank/country. Hence, we would quote the lower of the two rates, i.e. 68.2550 (Sell low maxim).

If the deal is struck, the foreign bank would pay USD 439528.24 to our USD NOSTRO account.

3) M/s BCD wants to remit JPY 100.00 million by TT value spot, as payment of an import invoice. Given that USD/INR is at 68.2500/2600 and USD/JPY is 116.50/60, and a margin of 0.15% is to be loaded to the exchange rate, calculate rate to be quoted and the Rupee amount to be debited to the account of M/s BCD.

Answer

Since JPY is to be sold against Rupee, and the rate is not directly given, we would use cross rate mechanism to calculate the same.

We need to buy JPY against USD and USD against INR for the deal.

Thus, USD/INR rate would be 68.2600 (market USD selling rate - high) and USD/JPY at 116.50 (market JPY selling rate - low). The JPY/INR rate would be $68.2600/116.50 = .58592$ per JPY

i.e. per 100 JPY	Rs. 58.5923
Add: Margin of 0.15	0.0879
	<u>58.6802</u>
Rounded off to	<u>58.68</u>



Total Rupee amount to be debited to the account of M/s BCD would thus be **Rs. 586,80,000.00**

[Note: JPY is quoted as per 100 Yen, as per FEDAI guidelines]

4) You are required to book forward sale contract for USD 1.00 million delivery 3rd month and another forward purchase contract for USD 2.00 Million for delivery 2nd month. Given that USD/INR spot is 68.9100/9200, premium quoted as under, calculate rates for merchant transactions, if the exchange margin of 0.15% is to be loaded for the purchase transaction and 0.20% for the sale transaction. Rate to be quoted to nearest 0.25 paise.

Premium (in paise):	1 m	0750/0850
	2 m	1800/1900
	3 m	2750/2850

Answer

(a) Calculation of rate for forward sale of USD 1.00 million:

Spot rate to be taken (higher rate of the market)	68.9200
3 m premium to be charged	0.2850
	<u>69.2050</u>
Add: Margin 0.20% (on spot rate)	0.1378
Rounded off to	69.3428 or 69.33425

(b) Calculation of rate for forward purchase of USD 2.00 million:

Spot rate to be taken (lower rate of the market)	68.9100
1 m premium to be paid/passed on	0.0750
	68.9850
Margin 0.15% (Less)	0.1035
	<u>68.8815 or 68.8825</u>

Note: For a sale contract premium for the full period, up to end date of the contract shall be charged, i.e. full 3 months, whereas, for purchase contract, premium would be passed on only up to the beginning of the contract period, i.e. only up to the start date, or for 1 month only.



5) A forward purchase contract for USD 500,000.00 booked 2 months back at 69.2500 is due for delivery 2 days later (spot date). The customer is informed by the drawee of the bill that the payment will be delayed by one month.

Given that the interbank spot is 67.5675/5775 and one month forward premium is 09/10 paise, and margin on TT buying and TT selling would be 0.15%, calculate rate for cancellation of the existing contract and also give indicative rate for re-booking of one month fixed date or option contract beginning one month from spot date.

Also, calculate the amount to be debited/credited to the customer's account on spot date, upon cancellation of the contract. Rate to be quoted to nearest 0.25 paise.

Answer

(a) The existing forward contract would have been booked at TT buying rate, and hence it has to be cancelled at opposite TT selling rate, computed as under:

Interbank USD/INR spot (higher of the two)	67.5775
Add: Margin 0.15%	<u>0.1014</u>
	<u>67.6789</u>
The contract would be cancelled at	<u>67.6800</u>

Rupee amount at contracted rate USD 500,000 @ 69.2500 = Rs. 34625000

Less amount at cancellation rate USD 500,000 @ 67.6800 = Rs. 33840000

Amount due to the customer **Rs. 7,85,000**

(to be paid to his account on spot date)

(b) Indicative rate for contract proposed to be re-booked:

If the contract is booked with option of one month beginning spot date:

Interbank rate Less:	67.5675
Margin 0.15%	
0.1014	
	<u>67.4661</u>
or say	<u>67.4650</u>



This is the rate (Rs. 67.4650) that would be given by the Bank in case the contract is booked option contract beginning one month from spot date.

If the contract is booked for delivery fixed date one month forward, premium for 1 month would be passed to the customer as under:

Interbank rate	67.5675
Less Margin (0.15%)	
0.1014	67.4661
Add: Premium for one month	0.0900
	67.5561 or 67.5550

CASE 6. Insurance

An LC calls for insurance from warehouse, and insurance to cover 110% of the invoice value.

Bank A negotiates and forwards documents, covering invoice for USD 17920.00 under a Multi modal transport document (Combined Bill of Lading) dated 15.03.2017. to the opening bank, under the said LC. The insurance enclosed to the documents is for USD 20,000.00 and is dated 17.03.2017.

As per the Article 28 of UCP, the insurance must indicate the amount of insurance. It should be at least 110%, of the invoice value if the LC is silent on this requirement and the policy cover must not be dated prior to the date of transport document.

In the given scenario, the insurance is dated after the date of multimodal transport document, which should be covering the voyage of goods from the godown of the seller, and is more than the given percentage for insurance coverage, i.e. more than 110%.

Banks would normally accept some difference in insurance coverage which could be due to rounding off of the values/cover amount, but can still point out as a discrepancy and refuse the documents, in case the insurance cover falls below 110% of the invoice value.

However, a document dated after the date of shipping document, is clearly a discrepancy, and requires specific approval from the applicant.

Case 7. Partial Shipments



An LC, covering shipment of 1000 cartons consisting of 15000 pieces of shirts, (readymade garments), from Chennai port to Dubai port, provides that partial shipment is not allowed.

The beneficiary hands over 500 cartons of Shirts, to the shipping company on 15.05.2017 and another 500 cartoons on 18.05.2017.

The Shipping Company issues BL for the first 500 cartons on 17.05.2017 and another BL covering 500 cartoons on 19.05.2017. Both the consignments are to be shipped by a vessel that is due to leave Chennai port on 21.05.2017. Thus the total goods under the LC, i.e. 1000 cartons, are shipped on a single vessel, but with two BLs.

The LC issuing bank, on receipt of documents drawn under the LC rejects the documents, stating the shipment is not made under one BL and as such constitutes partial shipment, which is not permitted under the LC. The issuing bank, informs the negotiating bank that goods are held at their disposal and further instructions are awaited.

As per article 31 of UCP, a presentation of documents consisting of more than one set of transport documents, covering shipment of goods on the same means of transport and has same journey, will not be considered as partial shipment, even if they indicate different dates of shipment.

As such, in the given scenario, the rejection of documents by the LC opening bank is not correct as per the Article 31 of UCP, and the bank must pay/honour the documents.

Illustration on credit risk mitigation:

Case 8

An exposure of Rs. 100 lakhs is backed by financial collateral of A+ debt security of Rs. 30 lakhs issued by others. The tenor of the exposure is 3 years. The residual maturity of the financial collateral is 2 years.

In this case, the financial collateral is an eligible credit risk mitigant.

As the residual maturity of the collateral is less than the residual maturity of the exposure, maturity mismatch is also there. However, there is no currency mismatch.

Let us first determine the hair cut of the collateral.



$$C^* = C \times (1 - H_c - H_c - H_{fx}) = 30 \times (1 - 6\% - 0\%) = 30 \times 94\% = 28.20$$

Where C^* = Haircut adjusted collateral value

C = Original collateral value

H_c = Hair cut applicable to the collateral

H_{fx} = Hair cut on account of currency mismatch between collateral and exposure.

$H_{fx} = 0.08$ in all cases where this is applicable.

Let us now determine what would be the value of the haircut-adjusted collateral after adjustment on account of maturity mismatch.

$$P = C^* \times (t - 0.25) / (T - 0.25) = 28.2 \times (2 - 0.25) / (3 - 0.25) = 28.2 \times 1.75 / 2.75 = 17.95$$

Where P = Value of credit risk mitigant adjusted for maturity mismatch.

C^* = value of the collateral adjusted for any haircut.

t = minimum of T and residual maturity of the credit protection expressed in years.

T = minimum of 5 years and residual maturity of the exposure expressed in years.

The adjusted collateral value is Rs. 17.95 lacs. The value of the exposure after risk mitigation would be $E = \text{Max} \{0, (\text{current value of exposure} - \text{value of the adjusted collateral for any haircut and maturity mismatch})\} = \text{Max} \{0, (100 - 17.95)\} = 82.05$

Net Exposure qualifying for Capital Adequacy is Rs. 82.05 lacs.

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