A
Project Report
On

"ONLINE TRADING"

Submitted towards the fulfilment of
The degree of M.B.A (IIIrd semester)
For the course

FINANCIAL MARKETS AND REGULATORY SYSTEMS

Submitted by

Deepika Maloo (MBA-Finance, 242)
Priyanka Agnani (MBA-Finance, 247)
Rachna Kishore (MBA-LLM, 265)

Submitted to

Mr. P.K. Jain &
Mr. Sharad Kothari
(Guest faculty for FMRS)

NATIONAL LAW UNIVERSITY, JODHPUR

Acknowledgement

We would like to express our gratitude to all those who gave us the possibility to complete this Project. We want to thank the Department of Management studies in National Law University, Jodhpur in the first instance, to do the necessary research work and to use University library and other infrastructure.

We are deeply indebted to Our Prof. Mr. P.K. Jain & Mr. Sharad Kothari whose help, stimulating suggestions and encouragement helped us during the time of research and writing of this Project.

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INTRODUCTION TO ONLINE TRADING

Online Trading

SEBI Committee approved the use of Internet as an **Order Routing System (ORS)** for communicating clients' orders to the exchanges through brokers. ORS enables investors to place orders with his broker and have control over the information and quotes and to hit the quote on an on-line basis. Once the broker's system receives the order, it checks the authenticity of the client electronically and then routes the order to the appropriate exchange for execution. On execution of the order, it is confirmed on real time basis. Investor receives reports on margin requirement, payments and delivery obligations through the system. His ledger and portfolio account get updated online.

NSE launched **internet trading in early February 2000**. It is the first stock exchange in the country to provide web-based access to investors to trade directly on the exchange. The orders originating from the PCs of the investors are routed through the Internet to the trading terminals of the designated brokers with whom they are connected and further to the exchange for trade execution. Soon after these orders get matched and result into trades, the investors get confirmation about them on their PCs through the same internet route.

Online trading refers to buying and selling securities via the Internet or other electronic means such as wireless access, touch-tone telephones, and other new technologies. With online trading, in most cases customers access a brokerage firm's Web Site through their regular Internet Service Provider. Once there, customers may consult information provided on the Web Site and log into their accounts to place orders and monitor account activity.

All trades involve a brokerage firm even if a stockbroker is not used to help with the trade. Although customers may enter orders for trades via the Internet, customers do not have direct access to the securities markets and therefore must use a brokerage firm in order to execute their trades. Customers should also remember to do their homework where their investments were concerned. Internet share trading is more convenient and hassle free. No phone calls, No paperwork, No more writing of cheques, you can trade on your own. Market position will be in front of you. You can trade while working in the office, while you are at home. If computer/Internet is not available at your place; you can go to Cyber cafe also. You can take an experience once; you will know the advantages of that.

Benefits of Online Trading with Broking firms:-

- User friendly environment as the customer's can excess and use the internet with much freedom and comfort with respect to traditional method.
- Transparency in Dealing between securities as every transaction is recorded on terminals.
- Personalized customer services are provided to the clients as the broking firms can handle many clients at a particular time.
- Brokerage rate is very competitive.
- Instant Trade confirmation. Internet is a very fast medium of communication cause of which the trade or the transaction is confirmed instantly by the terminals.
- Online trading provide complete protection against fraud and hacking, as there are very normal chances that the clients code are transferred to any other person. Cause every broker has a different code for its clients which help them in avoiding any misleading.
- 128 bit super safe encryption – SSL (Secured Socket Layer)
- Complete password protection.

Positive Regulatory Environment

The market regulator, Securities and Exchange Board of India (SEBI), provided guidelines on Internet broking which are followed by all brokers and their members. Previously, a printed and signed contract for buying and selling shares was essential to make the transaction "enforceable" on both parties, in cases of arbitration. Therefore, some amount of paper was still essential, essentially serving as a "backup" to online transactions. From the perspective of making electronic contracts legally binding, the government changed the law that considers digital signatures lacking in official authenticity. Thus resulting into the passing of Information Technology Act, and paving the way for full-fledged online trading.

Online broking was welcome, but the problem with broking Web sites that were entering the business was that they were mere communication and information platform rather than trading platform. For most financial and stock market Web sites, creating awareness seemed to be the first step towards true online broking. In that initial phase, brokers first created a Web site that allows clients to register and then access information on share markets and place secure purchase orders. Rather than contacting the broker in a physical environment to place orders, investors can place even their first order online, based on live market data available on brokers' Web sites. The purchase order is then routed through the broker's Web site to the stock exchange server, and confirmation was received soon after. The next two steps of the broking transaction – payment and delivery of shares – still take place on the traditional mode.

Paperless Trading

Established broking firms with sound track record were the early entrants in the online trading market. There were established institutional players like ICICI and IL&FS (Infrastructure Leasing and Financial Services) who entered the online retail broking market. Using its foray into retail banking and other services, investment firms and broking firms flexed there financial muscle to became front runner in the online trading game.

Competing with Online Front runners

Every Big player is investing huge amounts on creating necessary infrastructure as well as in the marketing of their Web sites. "Unless we invest heavily in infrastructure, particularly to ensure safety and security of transactions, they may not be able to enthuse investors," SSKI's.

Impact of Online Trading

One of the key impacts of online trading was the widening of the investor base. Although traditional forms of stock trading continued to exist, the Internet facilitates buying and selling shares for the smallest of the investors, a luxury not offered in traditional forms of trading. "It was not possible for small investors, below a certain size, to access a 'stock-broker' because of the servicing (manpower and physical infrastructure) constraints. With the Internet there is no such constraint. The number of those hooked to online trading runs into millions, even if only 400 to 500 of the total brokers registered with SEBI are online.

"Discount-broking in India was already in. Pre-Internet execution costs in the US were high. The Internet, by bringing down the cost of servicing, offered a 'discounted-price' service opportunity. Even now, the pricing difference between the two channels (click and brick) there was high. But here, execution costs were already very low. Hence, the Internet did not really force the pricing significantly down from here. But there was scope for pricing-paradigm changes. For example, moving to per trade pricing compared to percentage of value of trade pricing,"

INTERNET BROKING

E-Finance

'E-finance' is the provision of financial services over cyberspace or other electronic media including money, banking, payments, trading, broking and insurance. Rapid progress in ***information and communication technology (ICT)*** is a key factor changing the financial sector in many countries and its effects are predominantly strong in finance. Financial services are intangible and progress in ICT has significantly reduced the cost of providing them and is a driving force for structural change in conjunction with globalisation and deregulation. Low operating costs are influence on both the performance of e-finance providers and the structure of the finance industry namely the "***e-broking***".

E-finance is the most promising areas of e-commerce as financial services are information-intensive and often involve no physical delivery. New information technology (IT) has revolutionized the finance industry with the rapid growth of electronic finance. As mentioned above, e-finance activities include all types of financial activities carried out over the cyberspace or other public networks, such as online banking, electronic trading, the provision and delivery of various financial products and services such as insurance, mortgage and brokerage, electronic money, electronic payment and communication of financial information. Thus, e-finance is a driving force that is changing the landscape of the finance industry vitally, specifically towards a more competitive industry and has distorted the boundaries between different financial institutions, enabled new financial products and services, and made existing financial services available in different packages.

E-Money

E-money allows payments (including P2P payments) without involvement of a third party during the payment transaction and e-money is a new type of money that can be sent anywhere in the world within a second. There are two main types of e-money such as 'e-cash' including electronic purses and multi-purpose stored value smart cards and **'cyber money'** called 'network money' prepaid software products that can be used for payments or transfers on cyberspace. It could be said that **e-cash substitutes notes and coin while cyber money substitutes bank deposits**. At present a mixture of payments instruments such as coins, notes, cheques, giros, credit cards and direct debits co-exist, specializing in different uses, which mean that e-cash and banknotes will co-exist for a long period. Excessive issue of e-cash in the same way the paper money have caused could give rise to inflationary pressures and if a prominent e-cash system fails, it will shatter consumer confidence in many other electronic schemes. A high-flying e-cash scheme will become too big to be allowed to fail and so unconditionally government-guaranteed, otherwise will be highly disruptive to the economy. Furthermore, developments in information technology permits banks to manage their operations in the inter-bank market more effectively holding smaller amounts on average in their accounts with the central bank. The growing value of technology implies that payment providers have to either produce the required technical knowledge in-house or rely on specialized brokers resulting in outsourcing becoming more important and so banks lose some control over innovation.

E-Trading & E-Banking

E-trading is transforming the structure of wholesale financial markets such as foreign exchange and equity markets introducing new architectures with new trading rules and the new systems. Electronic systems have made far less impact on transactions between banks and their clients. Regardless that many banks have offered clients single-dealer platforms, clients have made known their preference for multi-dealer platforms and banks

have feared competition from non-bank platforms. Changes to market architecture have an effect on the resilience of financial markets and price volatility in them because liquid markets are more flexible than illiquid markets, and prices tend to adjust more smoothly.

E-trading *cuts trading costs, including through facilitating* ***"straight-through-processing" (STP)*** *allowing trades to pass mechanically through to final settlement without further manual intervention. Electronic trading leads to fragmentation of markets spreading transactions among more exchanges operating independently.* Foreign exchange and bonds have been mostly bilateral and the introduction of electronic' trading has led to greater concentration in these markets and enhancing liquidity. The estimation that traditional banks were "dinosaurs" that cyberspace would drive to extinction is no longer extensively held. The internet-only banks have been considerably less profitable generating lower business volumes and any savings generated by lower physical overheads appear to be offset by other types of non-interest expenditures, especially marketing to attract new clients. It seems that a combination of cyberspace delivery channel with focused bank branches will prevail, at least in the medium term.

E-brokers enables small investors to enter the market charging lower fees then the traditional brokers and thus enabling e-brokers to deal in smaller quantities and at more convenient times. Deregulation of brokerage fees provide good opportunities for e-brokers to expand as they are able to offer very low fees and when brokerage fees are large, it requires a large price movement before a trade becomes profitable, even for an investor who appropriately predicts the direction. While traditional brokers only provided research and information to their large clients, e-brokers use cyberspace to give small investors access to a similar range of information. It could be said that the increasing use of e-broking does not imply high profits for the e-brokers and competition is squeezing fees and the vast investment needed in sophisticated systems may make it hard for them to achieve high profit margins. Thus, e-banking must be backed up by some branch services for activities such as easy access to cash and retail stores are well placed to provide a counter for such basic banking transactions.

The rapid growth of banks into new activities stretches managerial capacity, mainly of smaller banks blindly following trends and lose profitability by adapting poorly to e-banking which involve either under-or over-spending on new technology tempting them to move into riskier business to maintain returns. Security concerns are a crucial factor discouraging many internet users from e-banking which means that there is a need for secure operating systems to hackers and denial-of-service attacks such as deliberate overloading of websites and introduction of safe cryptography, back-up systems, firewalls and emergency procedures. The development of common and robust authentication standards for digital signatures and legal recognition for them is necessary. Electronic Systems are used to changing degrees for trading in financial markets, at variance between markets, between types of trades and users, and between the various stages of the trading process. IT is not used in markets where counterparty credit risk is noteworthy, unless the system has been designed to manage this risk. Electronic trading makes it technically viable for the market structure to move to a centralised order book, where end-users can transact directly with each other. While better market access and greater market transparency have put pressure on intermediaries, the balance of power between dealers and clients seems to be shifting to the advantage of the latter in some markets.

Electronic trading both removes geographical restraints and allows continuous multilateral interaction permitting much higher volumes of trades to be handled. Electronic trading gives now order-driven markets in addition to several automated versions of dealer markets, offering a range of participation and access arrangements for dealer, inter-dealer and client sectors. EBS and Reuters have been designed as order books, in which dealers can see the best bid and offer in the market, alongside the best bid and offer that they could trade subject to their institutional credit limit structure. The inter-dealer segment of the market has mostly moved away from voice broking, and the electronic systems now act as a standard reference for pricing reflecting the liquid, homogenous nature of the product that can be traded in standardised units.

Electronic systems disseminate real-time pre- and post-trade information market-wide operating with minimal information leakage, in a manner that trading based on personal contact could not achieve. Electronic systems are sophisticated enough to move along the multidimensional spectrum of transparency meeting unlike users' preferences regarding information. The demand for anonymous trading is met through many electronic systems designed to eliminate (pre-trade) information leakage, enabling users to state precise orders without giving away potentially important information to competitors. Wholesale traders cover these orders in some way to avoid giving away information on their strategy, which leads to the market moving against them. Some systems permit traders to enter their true order preferences to the system with complete accuracy since the information is only "seen" by the computer system aiming to meet a demand for trading without losing informational advantage. The form and degree of disclosure vary with largely market-specific factors including the perceived role of the information in attracting liquidity to the system, the needs of its range of users and style of trades such as retail/wholesale and the commercial value of the data. For instance, the technique of information concerning a call market differs from that readily available from an order book or a dealer arrangement. Hence, the integration of electronic-trading increases potential for different arrangements, in principle virtually anywhere on a spectrum, between complete transparency and entire opacity.

E-BROKING[1]

In the words of Prof David Whiteley (2000): - "An electronic market is an attempt to use information and communication technologies to provide geographically dispersed traders with the information necessary for the fair operation of the market". The ***e-market*** is, in effect, a brokering service to bring together brokers and clients in a specific market segment. These markets give the client or client's intermediary, easy access to comparative data on prices, and other attributes of the goods or services on offer. E-markets are exemplified by airline brooking systems. They are also used in the financial and commodity markets and again the dealing is done via intermediaries – to buy stocks and shares a member of the public uses the services of a stockbroker. An electronic broker is an intermediary who: -

- May take an order from a client and pass it on to a stock exchange.
- May put a client with specific requirements in touch with a stock exchange who can meet those requirements.
- May provide a service to a client, such as a comparison between stock, with respect to particular criteria such as price, risk and return etc. Thus, e-brokers provide comparison- trading, order taking and fulfillment, and services to a client. That is the reason why they are sometimes referred to as "electronic" intermediaries. Although on-line trading strictly refers to the electronic execution of trade, an eco-system of e-stock trading has three dimensions: -
    - Electronic execution of the trade,
    - Payment of transaction through a payment gateway, and
    - Transfer of shares in electronic form. Current developments are, essentially, converting off-line practices to an online equivalent.

By examining the major developments in the sphere of Internet based share dealings in the new global market place, as reported by Peter Temple in his book the new Online Investor, we find that there have been three distinct phases in the development of e-broking. These are: -

Phase 1: - The open-outcry system with the transactions taking place manually in the ring.

Phase 2: - The electronic system, enabling brokers to place orders online4.

Phase 3: - The e-broking system, empowering clients to transact online. The mechanics of the e-trading system begins with the user logging onto the Electronic Communication Network (ECN) through the Internet. The user then accesses his e-trading account with the help of a secure client password. The user is now connected directly with the exchange and any transactions would be instantaneous and irrevocable. The user also has access to real-time price movements of various stocks, and other contextual information to assist him in his decision- making. Lee suggests in his book 'Doing Business Electronically: - **A Global Perspective of E-commerce' that "an integrated e-broking system** consists of not only a transaction enabler but also a payment gateway for funds transfer and a 'demat' account for the transfer of stocks. Such a service enables smooth, convenient and transparent operations". It is a healthy sign for the service industry that the number of e-trading sites and the usage of them are mushrooming all over the globe.

Benefits and Problems of E-broking

In recent years, the use of the Internet has spread among investors in stocks and shares. The Internet can make up-to-the-minute information available to a large number of investors that until recently had only been available to those working in financial institutions. Komenar (1999) concludes: - "The use of online brokerage services automates the process of buying and selling, and hence, allows a reduction of commission charges. Also, the commodity being traded is intangible; the ownership of stocks and shares can be recorded electronically, so there is no requirement for physical delivery". However, it should be noted that the supply

chain for online share dealing remains unchanged, use of the Net just speeds up the whole process and that can be vital in some share deals. Switching over to e-broking system results in several benefits to both client and the broker.

Benefits to Users

1. **Lower transaction costs: -** Typical brokerage-rates in India are in the range of 1.0 to 1.5%, whereas the rates for e-broking are as low as 0.1%. In the US, the brokerage costs, before e- trading was introduced, were as high as 7%. But it has now come down to about 1%. E-broking, in addition, not only brings down the cost of the execution of the transaction but also speeds up the electronic transfer of securities.
2. **Transparency: -** E-broking empowers the clients to transact directly on the stock exchange and delayers the whole process thereby improving transparency. "The user does not need to rely on the broker's `word-of-mouth' or `transaction' slips for confirmation of the price at which his trade was conducted, observes Dr. Lucas (1999).
3. **Convenience: -** Online share trading is available merely at the click of a button, in the comfort of home/office, thus, making it much more convenient for the clients to trade anytime. Also, with `limit-based' orders being allowed, clients can place their orders even during the `non-trading' hours, which are executed at the earliest trading possibility.
4. **Procedural benefits: -** Unlike the earlier scenario, where the clients had to physically go to the broker to complete the formalities of trade, under the e-trading paradigm, these procedures are doe away with. As Chan (et al., 2001) in the book titled "E-Commerce: - Fundamentals and Applications" (2001) concludes: - "The entire cycle-of-trade (like placing the order, transfer of funds, transfer of securities, etc.) is done electronically, and it speeds up the whole process."

Benefits to Brokers

1. **Easier risk management: -** Peter Temple sums it up as: - "Under the online mechanism, the system would first check the status of funds available with the client in his bank account and only then allow the trade to take place. This process, thus, substantially reduces the exposure of the broker to client-related credit and payment risks".
2. **Greater business potential: -** The new paradigm of e-broking, which allows simple, convenient, and transparent transactions, may encourage more participants to trade. It is expected that the introduction of e-broking will expand the market horizon, thus resulting in better business for brokers in the long-term.
3. **Lower staff costs: -** Automation of the broking processes results in reduced manpower requirements, flexibility of time, less infrastructure cost, etc. offering significant cost- savings to the broker. The major problem with e-stock trading is that it increases the temptation on the part of influential speculators & stockbrokers to indulge in short-term speculation rather than long-term investment. The history of stock markets (both NSE and BSE) in India is replete with at least a dozen cases of scams, where stockbrokers and bankers joined hands to squander the savings of millions of small and institutional investors. As Dr. Lucas has rightly pointed out in his book (1997) Internet Trading and Its Threat to Traditional Stock Brokers – "Consumer and business concerns about Internet security are well founded. Amid an explosive upsurge in scams, fraudsters continue to take advantage of the Internet's anonymous transaction environment – with everyone from one-time hackers to organized crime testing the market's boundaries." However, the problems are further compounded by the different legislative frameworks, which are prevalent in countries across the globe.

Security Concerns for E-broking: -

Some leading technology companies have already developed "online transaction processing" and "straight-through processing" applications that allow real-time transaction execution. Both allow the user to directly interact with the central system of any market place, without any manual intervention. As Professor David Whiteley (2000) suggests: - "Straight-through processing technology permits financial software products to directly interact with the stock exchange system by communicating with the exchange market structures. This is achieved by developing Application Programming Interfaces (APIs) that talk to the exchange server. "One of the leading technology providers for online trading in India is Financial Technologies India (visit www.ftIndia.com) with a product called "FT Engine". It would suffice to say that the cycle of e- broking has to pass through three layers: - -

A) The Client Interface Layer: - the front-end,
B) The Middle Layer: - risk management systems that access data from banks and depository participants, calculate client exposure at the instant, and give `Go/No go' advice on the trade, and
C) The End- Layer, the back-end, where the accounting modules, pay in or pay out schedules etc. operate. It must be noted at the outset by the readers that from a technical perspective, there are three key success factors for e-broking. They are briefly described below: -

1. Scalability and robustness of the trading system. It becomes imperative for any Net-based application to have a proven capability for scalability and robustness of a trading system that ensures the ability to handle and process requests from multiple users at any given point in time.
2. Bandwidth optimization: - The application software should demonstrate intelligence in optimizing the available bandwidth by deploying advanced technologies like streaming.
3. Integration with third-party systems: - On the Net, with information feeds available from multiple points; it is prudent to deploy applications that are built on open architecture methodology for interfacing with third party systems.
4. For any e-trading system to be successful, it should provide security, reliability and confidentiality of data. This can be achieved through the use of `encryption' technology before the online trading begins. The major security requirements of e-broking are: -
    - Trusted means of authentication over open networks,
    - Confidentiality of the transaction,
    - Means to ensure integrity of data in-transit, and (d) means to ensure non-repudiation' of payment or its receipt (visit www.odysseytec.com).
5. Various security models are adopted to ensure safe and reliable e-broking transactions. The commonly employed security models in e-Broking are: - passwords, Secure Sockets Layer (SSL), Kerberos, Pretty Good Privacy (PGP), Public Key Infrastructure (PKI), Custom Implementations, Linux, etc.

E-broking in India: -

Internet stock-trading in India began in January 2000. Hindrances to the growth of e-broking in India can be summed up as: -

First, the low density of telephones, low Internet penetration, and low installed base of computers are responsible for the poor availability of the Internet.

Second, very few online payment gateways are available, hindering the smooth growth of the industry. Integrated service providers (like ICICIDirect.com), which provide combined banking, broking and 'demat' services, have an advantage over other non- integrated service providers, who have to scout for partners for providing gateway services.

Third, data privacy can be ensured through server side certification and here the situation appears to be satisfactory. However, most of the sites restrict access through passwords and identification numbers, but these are not considered adequate and foolproof.
Fourth, Institutional investors comprise over 80% of the total investors in the country. The remaining 20% of retail investors, the focus segment of e-brokers, do not contribute significantly to the overall stock-turnover of the country. Thus, there is a theoretical limit to the overall penetration of e-broking,
Last but not least, the concept of trading on computers through the Internet requires a change in the habits of people; enhancing trust in these techniques may take more time.

E-Broking features

Margin: -

In order to contain the risk arising out of transactions entered into by the members in various scrip's either on their own account or on behalf of their clients the Exchange has a well designed risk-management system which inter-alia, includes collection of margins from the members. The Exchange accordingly imposes various kinds of margins on the members based on their outstanding positions in the market.

Amount of cash or eligible securities required to be deposited with a broker before engaging in margin transactions. A margin transaction is one in which the broker extends credit to the client in a margin account. It is actually a risk management system employed in the stock exchange to protect against any adversity. Margin payments are kept to ensure that each investor is serious about buying or selling share.
Margin is determined by the following equation: -

$$M = V\text{-}L/V*100$$

It looks complicated, but it isn't. Here's an explanation: -

M is the margin, V is the market value of the securities, and L is the broker's loan. The ratio is expressed as a percentage. The lowest initial margin, or the margin at the time of the purchase, is 50%. After the purchase of the stock on margin, there is a maintenance margin below which the margin is not allowed to fall. The maintenance margin is 25%, but brokers can set their own margins (30% is common). If the margin falls below the maintenance margin, the broker calls for additional cash from the investor. If the money does not come within the specified time, the broker immediately sells the stock.

Buying on margin is a technique that many investors use. It allows better utilization of available resources. But as the investor, you must be completely aware and positive about buying before you actually do so. When you trade on margin, you can gain buying power by borrowing a major portion of the investment amount.

Initial Margin: -

This margin is calculated on a portfolio basis and not on individual scrip basis. The margin calculation is done using ***SPAN (Standard Portfolio Analysis of Risk)*** a product developed by Chicago Mercantile Exchange. The margin is levied at trade level on real-time basis. The rates are computed at 5 intervals one at the beginning of the day 3 during market hours and one at the end of the day. *The objective of SPAN is to identify overall risk in a portfolio of futures and options contracts for each client*. The system treats futures and options contracts uniformly, while at the same time recognizing the unique exposures associated with options portfolios like extremely deep out-of-the-money short positions, inter-month risk and inter-commodity risk. Initial margin

requirements are based on 99% value at risk over a one-day time horizon. However, in the case of futures contracts (on index or individual securities), where it may not be possible to collect mark to market settlement value, before the commencement of trading on the next day, the initial margin may be computed over a two-day time horizon, applying the appropriate statistical formula. This will explain why the margins that you pay on first day of a trade contract keeps changing every day as we advance towards the maturity of the contract. Past volatility trends keeps changing the margin rates. In case of very high volatility the initial margin along with mark to market margin may be as high as 70: -75% of the scrip value. Thus investors who trade in share markets have to be very careful while taking positions. The margins calls will escalate and if you are unable to pay, your positions will be forcefully liquidated. The margin will be levied at individual client level on all outstanding net position at scrip wise gross level. In case a trading member wishes to take additional trading positions his CM is required to provide Additional Base Capital (ABC) to NSCCL. ABC can be provided by the members in the form of Cash, Bank Guarantee, Fixed Deposit Receipts and approved securities. [1]

Computation of Margins: -

VaR Margin: -

As mandated by SEBI, the Value at Risk (VaR) margining system, which is internationally accepted as the best margining system, is applicable on the outstanding positions of the members in all scrip's. ***The value that is at risk is the likely fall or rise in share price that can occur during the day i.e. volatility.*** **Volatility** is the difference in highs and lows during a given period of time. Higher the range, bigger is the risk of fluctuation in the market. We are currently taking previous 6 month period as basis for computing the volatility. This is a moving period i.e. on 1st January the six months will be from 1st July to 31st December then 2nd January it will be from 2nd July to 1st January and so on. A percentage of difference in highs and lows is considered as a basis for margin rate percentage. This is called exponentially weighted moving average methodology.

The method of calculating ***VaR rate varies from scrip to scrip.*** The scrip's are divided into 3 categories: -

Group I consists of shares that are regularly traded (that is, on more than 80% of the trading days in the previous six months) and have high liquidity (that is, impact cost less than 1%). **Group II** consists of shares that are regularly traded (again, more than 80% of the trading days in the previous six months) but with higher impact cost (that is, more than 1 %). All other shares are classified under **Group III**.

For Group I shares, the VaR margin rate would be higher of
- 3.5 times volatility or
- 7.5% of value

For Group II shares, the VaR margin rate would be higher of
- 3.5 times volatility or
- 3.0 times volatility of index

The volatility of index is taken as the higher of the daily Index volatility based on S&P CNX NIFTY or BSE SENSEX. At any point in time, minimum value of volatility of index is taken as 5%.

For **Group II shares**, the number arrived at as above, is multiplied by **1.732051** (that is, square root of 3). The number so obtained is the VaR margin rate.

For **Group III securities** VaR margin rate would be 5.0 times volatility of the Index multiplied by 1.732051

1www.nucleusindia.com

(that is, square root of 3).

a) The VaR Margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99% Value at Risk). For liquid stocks, the margin covers one-day losses while for illiquid stocks; it covers three-day losses so as to allow the Exchange to liquidate the position over three days. This leads to a scaling factor of square root of three for illiquid stocks.

For liquid stocks, the VaR margins are based only on the volatility of the stock while for other stocks, the volatility of the market index is also used in the computation. Computation of the VaR margin requires the following definitions: -

- Scrip sigma means the volatility of the security computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- Scrip VaR means the highest of 7.5% or 3.5 scrip sigma's.
- Index sigma means the daily volatility of the market index (S&P CNX Nifty or BSE Sensex) computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- Index VaR means the highest of 5% or 3 index sigmas. The higher of the Sensex VaR or Nifty VaR would be used for this purpose.

Liquidity Categorization	One-Day VaR	Scaling factor for illiquidity	VaR Margin
Liquid Securities (Group I)	Scrip VaR	1.00	Scrip VaR
Less Liquid Securities (Group II)	Higher of Scrip VaR and three times Index VaR	1.73 (square root of 3.00)	Higher of 1.73 times Scrip VaR and 5.20 times Index VaR
Illiquid Securities (Group III)	Five times Index VaR	1.73 (square root of 3.00)	8.66 times Index VaR

a) The VaR margin is collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade.

b) The VaR margin is collected on the gross open position of the member. The gross open position for this purpose is the gross of all net positions across all the clients of a member including his proprietary position.

c) For this purpose, there would be no netting of positions across different settlements.

d) Dissemination of Information : -

The VaR amount applicable in respect of the scrip's would be disseminated on the website of the

Exchange on a daily basis.

Formula for determining standard deviation: -[1]

The committee (here refers to RBI-SEBI standing technical committee on exchange traded currency futures) examined the empirical tests of different risk management models in the **Value at Risk (VaR)** framework in the Re/$ exchange rate. Data for the period January 2, 1998 to April 7, 2008 was analyzed. **GARCH-GED** (Generalized Auto-Regressive Conditional Heteroskedasticity with Generalized Error Distribution residuals), GARCH-normal and GARCH-t at 3 and 3.5 sigma levels were found to perform well even at 1% risk level, while the **EWMA (Exponentially Weighted Moving Average)** model used in J.P. Morgan's Risk Metrics® methodology was found to work well at 1 % risk level only at 3.5 sigma levels. Given the computational ease of the EWMA model and given the familiarity of the Exchanges with this particular model (it is currently being used in the equity derivatives market), the Committee, after considering the various aspects of the different models, recommends the following: - - The exponential moving average method would be used to obtain the volatility estimate every day. The estimate at the end of time **period t (σ_t)** is estimated using the volatility estimate at the end of the previous time period. I.e. as at the **end of t-1 time period (σ_{t-1})**, and the **return (r_t) o**bserved in the futures market during the time **period t**. The formula would be as under: -

$$(\sigma t)\ 2 = \lambda\ (\sigma t\text{-}1)2 + (1 - \lambda\ )\ (rt)2$$

Where λ is a parameter which determines how rapidly volatility estimates changes. The value of λ is fixed at 0.94.

- **Σ (sigma)** means the standard deviation of daily returns in the currency futures market.
- The "return" is defined as the logarithmic return: - **rt = ln(Ct/Ct-1)** where Ct is the Currency futures price at time t. The plus/minus 3.5 sigma limits for a 99% VAR based on logarithmic returns would have to be converted into percentage price changes by reversing the logarithmic transformation. The percentage margin on short positions would be equal to **100(exp (3.5 σt)-1)** and the percentage margin on long positions would be equal to **100(1-exp (- 3.5σt)**). This implies slightly larger margins on short positions than on long positions. The derivatives exchange / clearing corporation may apply the higher margin on both the buy and sell side.
- During the first time period on the first day of Currency futures trading, the sigma would be equal to 0.5%.
- The volatility estimation and margin fixation methodology should be clearly made known to all market participants so that they can compute what the margin would be for any given closing level of the currency futures price. Further, the trading software itself should provide this information on a real time basis on the trading workstation screen.

Real time computation

The computation of worst scenario loss would have two components. The first is the valuation of the portfolio

1 Www.rbi-sebi standing technical committee/EXCHANGE TRADED CURRENCY FUTURES

under the various scenarios of price changes. At the second stage, these scenario contract values would be applied to the actual portfolio positions to compute the portfolio values and the initial margin. The exchanges shall update the scenario contract values at least 5 times in the day, which may be carried out by taking the closing price of the previous day at the start of trading and the prices at 11: -00 a.m., 12: -30 p.m., and 2: -00 p.m. and at the end of the trading session. The latest available scenario contract values would be applied to member/client portfolios on a real time basis.

■ Mark to Market Margin (MTM) : -

1. The MTM margin is collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including his proprietary position. For this purpose, the position of a client is netted across his various securities and the positions of all the clients of a broker are grossed. Further, there is no netting across two different settlements.
2. There is no netting off the positions and setoff against MTM profits across 2 rolling settlements i.e. T day and T-1 day. However, for computation of MTM profits/losses for the day, netting or setoff against MTM profits is permitted.

MTM is calculated at the end of the day on all open positions by comparing transaction price with the closing price of the share for the day. In our example Consider shares of a company bought by an investor. Its market value today is Rs.50 lakhs but its market value tomorrow is obviously not known. An investor holding these shares may, based on VaR methodology, say that 1-day VaR is Rs.4 lakhs at 99% confidence level. This implies that under normal trading conditions the investor can, with 99% confidence, say that the value of the shares would not go down by more than Rs.4 lakhs within next 1-day, we have seen that a buyer purchased 1000 shares @ Rs.100/- at 11 am on January 1, 2008. If close price of the shares on that day happens to be Rs.75/-, then the buyer faces a notional loss of Rs.25, 000/ - on his buy position. In technical terms this loss is called as MTM loss and is payable by January 2, 2008 (that is next day of the trade).

- **Extreme Loss Margin**

The term Extreme Loss Margin replaces the terms "exposure limits" and "second line of defense" that have been used hitherto. It covers the expected loss in situations that go beyond those envisaged in the 99% value at risk estimates used in the VaR margin.

1. The Extreme Loss Margin for any stock is higher of: -
    a. 5%, and
    b. 1.5 times the standard deviation of daily logarithmic returns of the stock price in the last six months. This computation is done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value is applicable for the next month.
2. The Extreme Loss Margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including his proprietary position.
3. For this purpose, there is no netting of positions across different settlements.

- Dissemination of Information: - -

The ELM amount applicable in respect of the scrip's is disseminated on the website of the Exchange on a daily basis.

- **Special Margin: -**

  Special margin may be imposed by the Exchange, from time to time on certain scrip's as a surveillance measure and informed to the members through notices.

- **Assignment Margin: -**

  Assignment Margin is levied on a CM in addition to SPAN margin and Premium Margin. It is required to be paid on assigned positions of CM's towards Interim and Final Exercise Settlement obligations for option contracts on individual securities, till such obligations are fulfilled.

  The margin is charged on the Net Exercise Settlement Value payable by a Clearing Member towards Interim and Final Exercise Settlement and is deductible from the effective deposits of the Clearing Member available towards margins Assignment margin is released to the CM's for exercise settlement pay-in.

Collection of Margins: -

All statements pertaining to daily margins viz., VaR, MTM, ELM and Special Margin computed by the Exchange on the outstanding positions of the members are available for downloading by them in their back –offices at the end of the day.

- **VaR Margin.**

  The VaR margin is collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade.

- **Mark to Market Margin (MTM) : -**

  The **mark to market margin (MTM) is computed after trading hours on T-day on the basis of closing price, of that day.** In case the security has not been traded on a particular day, the latest available closing price is considered as the closing price. MTM margins is also recomputed in respect of all the pending settlements on the basis of closing prices of T day and the difference due to increase/decrease in MTM margins on account of such re-computation is adjusted in the MTM obligation of the member for the day. Such MTM is collected from the members in the evening on the T day itself, first by adjusting the same from the available cash and cash equivalent component of the liquid assets and the balance MTM in form of cash from the members through their clearing banks on the same day.

- **Special Margins : -**

  The Special Margin as applicable is collected along with MTM from the members, first, by adjusting the same from the available liquid assets and the balance Special Margin in form of cash from the members through their clearing banks on the same day.

- **Extreme Loss Margin (ELM) : -**

The Extreme Loss Margin is collected/ adjusted from the total liquid assets of the member on a real time basis. Extreme Loss Margin: - The ELM for any scrip shall be **5% of the scrip value** or 1.5 times the standard deviation of daily logarithmic returns of the security price in the last six months. This computation shall be done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value shall be applicable for the next month. Like VaR this is also applicable on individual client level.

Release of margins.

The above-referred margins so collected are released on completion of pay-in of the settlement.

Exemption from margins: -

The following trades executed on the BOLT are exempted from payment of margins: -

- Institutional businesses i.e., transactions done by all institutional investors are exempt from margin payments. For this purpose, institutional investors include: -
- Foreign Institutional Investors registered with SEBI.
- Mutual Funds registered with SEBI.
- Public Financial Institutions as defined under Section 4A of the Companies Act, 1956.
- Banks, i.e., a banking company as defined under Section 5(1) (c) of the Banking Regulations Act, 1949.
- Insurance companies registered with IRDA.
- In cases where early pay-in of securities is made, the outstanding position of the client to the extent of early pay-in is not considered for margin purposes.
- There are no other margin exemptions other than those mentioned above.

Early pay-in facility

- **The early pay-in of securities** done up to 3.00 p.m. on a day are considered for on line release of blocked liquid assets on account of margins on that day. The benefits of early pay-in done after 3.00 p.m. on a day will be available on the next trading day.
- Members are also able to do early pay-in of securities before execution of the trade on T day to avail benefit of margin exemption.

For availing the benefits of margin exemptions through early pay-in of securities, the members are required to upload a file containing details in respect of the early pay-in at client level to the Clearing House (BOISL). The details in the file are matched against the transaction files received from CDSL and NSDL. Only the matched records are uploaded for Early Pay-In.

Initial Margin

The Initial Margin requirement shall be based on a worst case loss of a portfolio of an individual client across various scenarios of price changes. The various scenarios of price changes would be so computed so as to cover a **99% VaR** over a one day horizon. In order to achieve this, the price scan range may initially be fixed at **3.5 (standard deviation)**. The initial margin so computed would be subject to a minimum of **1.75%** on the first day of currency futures trading and 1 % thereafter. The initial margin shall be deducted from the liquid net worth of the clearing member on an online, real time basis. The computation methodology in respect of ordinary margin is as follows: -

- **Intra day –** During the trading session, the margin is calculated on the absolute difference between total sales in value terms and total buy in value terms in respect of all transactions executed in a contract during the day at client level, in addition to previous day's open position carried forward at the closing price of previous day.
- **End of day –** At end of the trading session, the margin amount is computed at client level on net position in a contract in quantitative terms multiplied by the official closing price.

The **min. margin requirement**, sometimes called the **maintenance margin requirement**, is the ratio set for: -

- (Stock Equity - Leveraged Rupees) to Stock Equity
- Stock Equity being the stock price * no. of stocks bought and Leveraged Rupees being the amount borrowed in the margin account.
- E.g. an investor bought 1000 shares of ABC Company each priced at Rs.50. If the initial margin requirement were 60%: -
- Stock Equity: - Rs.50 * 1000 = Rs.50,000
- Leveraged Rupees or amount borrowed: - (Rs.50 * 1000)* (1-60%) = Rs.20,000

So the **maintenance margin requirement** uses the above variables to form a ratio that investors have to abide by in order to keep the account active.

The point is, let's say the **maintenance margin requirement** is reduced from 60% to 25% - At what price would the investor be getting a margin call? Let P be the price, so 1000P in our case is the Stock Equity.

- (Stock Equity - Leveraged Rupees) divided by Stock Equity = 25%
- (1000P - Rs.20,000)/1000P = 0.25
- (1000P - Rs.20,000) = 250P
- P = Rs.26.67

So if the stock price drops from Rs.50 to Rs.26.67, investors will be called to add additional funds to the account to make up for the loss in stock equity.

Additional Margin: -

In case the price fluctuation in a contract during the trading session is more than 50% of the circuit filter limit applicable on that contract compared to the base price of the day, an additional margin equivalent to 50% of the circuit filter limit or as specified by the Exchange is applied. Such additional margin amount is immediately reflected in utilized margin of the members having outstanding position in that contract and in case the available margin of a member is not sufficient to cover such additional margin required, a margin call is sent to the member and is required to be remitted by the member immediately. In such case, since the available deposit is already exhausted, he is put in square off mode and the same continues during such trading session till collection of required margin amount is completed or member squares off his position.

Special Margin: -

Special Margin is the margin **levied over and above initial margin**. Special margin is levied on buy or sell or both. It is levied by exchange per se or by exchange on the instruction of FMC.(This product is for commodity market)

Tender Period/Delivery Period Margin: -

When a contract enters into tender period/delivery period towards the end of its life cycle, tender period margin is imposed. **Tender margin is levied as specified in the contract specification and is applicable on both outstanding buy and sell position**, which continues up to the marking of delivery obligation or expiry of the contract, whichever is earlier.

The delivery period margin is levied on the marked quantity and is calculated at the rate specified for respective commodity multiplied by the marked quantity at the expiring contract. When a seller submits delivery documents along with surveyor's certificate, his position is treated as settled considering early pay-in and his tender period/delivery period margin to such extent is reduced. When a buyer pays money for the delivery allocated to him, his delivery period margin is reduced on such quantity for which he has paid the amount. If delivery does not happen with respect to certain open position and is finally settled by way of difference as per the **Due Date Rate**, the delivery period margin is released only after final settlement of difference arising out of such closing out as per the **Due Date Rate**. (this product is for commodity market)

Placing Orders

Before placing an order on margin, make certain that the security is margin able and that you are able to fulfill the margin requirements. Remember to tell the trader that the order should be placed in your margin account.

Margin call

When the margin posted in the margin account is below the **minimum margin requirement**, the broker or exchange issues a **margin call**. The investor now either has to increase the margin that they have deposited, or they can close out their position. They can do this by selling the securities, options or futures if they are long and by buying them back if they are short. If they don't do any of this the broker can sell his securities to meet the margin call.

Settling Margin Transactions

All margin transactions are settled through investor's money market settlement account. Margin account credits will sweep to investor's money market account, and funds will be drawn from that account to reduce margin account debits. This could affect investor's investment strategy and his ability to write checks against his money market account.

If investor prefer, his account can be structured so that margin balances do not sweep automatically. In this case, we will move only enough funds from his money market settlement account to establish and maintain the required margin equity.

Table 1

	Activity	Day
Trading	Rolling Settlement Trading	T
Settlement	Securities and Funds pay in	T+2 working days
	Securities and Funds pay out	T+2 working days
Post Settlement	Auction	T+3 working days
	Auction settlement	T+5 working days

- Fines / Penalty for Margin Default: -

The cases where there is an insufficient balance in bank accounts of the member-brokers at the time of debit of margin amounts payable in cash on the relevant day are treated as margin defaults. The norms for levy of fines/ penalty for delay in clearance of margin obligations w.e.f. May 30, 2005 are as follows:

Violation/s	Revised norms (Instances of violations in a F.Y.)
Delay in clearance of margin obligations to the Exchange.	**1ST to 3RD instance :** Rs.5,000/- or 1% of funds obligation, whichever is higher. In addition BOLT Terminal to be de-activated immediately and to remain de-activated till margin obligation is cleared. **4th & 5th instance:** Rs.10,000/- or 1.5% of funds obligation, whichever is higher. In addition to the above penalty, BOLT Terminal to be de-activated immediately and to remain de-activated for additional **ONE** trading day, after clearance of the obligation. **6th & 7th instance:** If financial obligation is <= Rs.25000/- then penalty of Rs.10,000/- will be levied. If financial obligation is > Rs.25,000/- penalty of Rs.25,000/- or 2% of funds obligation whichever is higher . In addition to the above penalty, BOLT Terminal to be deactivated immediately and to remain de-activated for additional **three** trading days after clearance of the obligation irrespective of the amount of obligation. **8th Instance:** If financial obligation is <= Rs. 50,000/- then penalty of Rs. 25,000/- will be levied. If obligation is > Rs. 50,000/- then penalty of Rs. 50,000/- or 2.5 % of the funds obligation whichever is higher . In addition to the above penalty, BOLT Terminal to be de-activated immediately and to remain de-activated for additional **Seven** trading days after clearance of the obligation, irrespective of the amount of obligation. Plus the matter would be referred to DAC.

Settlement and Pay-in and Pay-out

Rolling Settlement: -

Under rolling settlement, all transactions, to the extent not closed out during the day, known as open positions at the end of the day mandatory result in payment/ delivery 'n' days later. Currently trades in rolling settlement are settled on T+2 bases where T is the trade day. For example, a trade executed on Monday is mandatory settled on Wednesday (considering two working days from the trade day). The funds and securities pay-in and pay-out are carried out on T+2 day.

Pay-in and Pay-out of Securities and Funds

An investor as to pay for stock purchased within 24 hours of trade. The payment has to be made by way of account ***payee cheque/demand draft*** in the name of the trading member only. It is necessary that no payment should be made by way of cash or into the personal account of the trading member or sub-broker or any of its employees. The investors receive payment for securities **within 24 hours (one working day)** of declaration of pay-out by the Stock Exchange. The trading member ensures that cheque / money transfer is done to him from the bank account specified in **'Know Your Client'** form, at the time of opening trading account with the trading member.

Delivery and Receipt of Securities

- In case of a sale transaction, to ensure timely *pay-in of securities* by investor's trading member to The **National Securities Clearing Corporation Ltd.**, a wholly owned subsidiary of the Exchange (NSCCL), investor **should deliver securities within 24 hours of trade**. For this, instructions should be given to the DP to transfer securities from investor's beneficiary account to the pool account of its trading member. Investor's should fill up delivery instruction slip on its own and verify each detail including settlement details, (NSDL has advised not leave any field or row blank). Securities deliveries are made to trading member from investor own beneficiary account, which was specified in '**Know Your Client**' form, while opening the trading account.
- In case of purchase, investor should receive securities (in its beneficiary account with DP), **within 24 hours of the securities payout by the NSCCL**. For this, standing instructions should be given to the DP to receive securities in investor's beneficiary account from the pool account of its trading member.
- Check on the pay out day whether investor depository account is credited with securities purchased or investor's bank account is credited through electronic fund transfer representing sale consideration.

Margins payable on Securities and Transactions: - -

Based on the Contract notes issued by the trading member, arrange to meet pay-in obligation as under: -

1. In case of securities sold on the Exchange, handover delivery instruction to your DP.
   - From his own beneficiary account.
   - With correct settlement.
   - Member account details depending upon the Exchange in which securities are sold and ensure that DP effects delivery to the trading member a day prior to pay-in day, crediting the specified pool account of the trading member.

2. Note that although the deliveries are to be made by T+2 day from the trade day, Depositories NSDL /CDSL have specified timings to receive delivery instruction by their depository participants. You have to verify the timings by which delivery instruction can be deposited with your depository participant to facilitate them to affect delivery to avoid short delivery.

3. Ensure that deliveries of securities are made to trading member from your own beneficiary account, which was specified in 'Know Your Client' form, while opening the trading account.

4. Confirm with the depository participant as also the trading member that the delivery instructions have been correctly executed by them to the required settlement number and / or for required quantity.
5. In case of securities bought, arrange to issue a cheque in the trade name of the trading member / or transfer of money through electronic funds transfer to trading members' settlement / business account before the pay-in day.

6. Ensure that cheque / money transfer is done to trading member from the bank account specified in 'Know Your Client' form, at the time of opening trading account with trading member. The Exchange/Clearing Corporation prescribes margin rules from time to time and such margining rules are posted on the website of the Exchange. Currently, the Exchange calculates margins on the basis of value at risk principles as well as mark to market basis. The margins are charged on client level positions. Investor's are advised to educate him selves about the margining principles. According to the terms and conditions of the member-client- agreement / tripartite agreement, the trading member has a right to close out the position of a client and / or sell off securities deposited as margin / security deposit by the client, if margin money and / or loss and / or debit balance is not paid / deposited, as required by the member. Please refer to specific clauses in the member client- agreement relating to closing out of position/ sell off of securities. Therefore, it is necessary for Investor to keep track of the margin requirements in order to avoid square off by the trading member on account of shortfall in margin or selling off securities deposited as margin/security deposit.

Deposit with the trading member /sub-broker?

The regulations relating to Capital Market Segment do not mandate any such requirement. It depends on understanding of client with the trading member /sub-broker. Investor's are however, required to pay upfront margin to the member in respect of any order that they want to get executed in the Futures & Options Segment and also forthwith pay differential margin amount, if any, payable on account of the Exchange debiting the margin amount to the member account during the day.

Settlement Guarantee Fund

The NSCCL has set up the **Settlement Guarantee Fund (SGF)** that is intended primarily to guarantee financial settlement for trades executed in the regular market. The SGF, therefore, ensures that the settlement is not delayed on account of failure of trading members to meet their obligations and all other trading members who have completed their part of the obligations are not affected in any manner whatsoever.

Effect on investor's in case a counter trading member fails to pay-in funds as per his obligation: -
The investor is not affected in case the counter trading member fails to meet his obligation since NSCCL guarantees the net financial settlement obligations. The clearing corporation guarantees financial settlement through SGF in case of any default by the trading member towards his obligation. Demat Settlement

Depository

A depository is like a bank where in the deposits are securities (viz., shares, debentures, bonds, government securities, units etc.) in electronic form. Besides holding securities, a depository also provides services related to transaction in securities.

Depository Participant

Depository provides its services to investors through its agents called **Depository Participants (DP's)**. These agents are appointed by the depository with the approval of SEBI. According to SEBI regulations, amongst others, three categories of entities **i.e. Banks, Financial Institutions and Members** of Stock Exchanges registered with SEBI [TM's] can become DP's.

Holding securities in depository enables immediate transfer of securities in case of purchases. The stamp duty to be paid on transfer of securities is not needed, all risks associated with physical certificates like fake securities, and forgery, bad delivery, etc. are not involved. Also, since more than 99% of the settlement at the stock exchanges is taking place in the demat form, it is advisable that securities be held in demat form with any Depository Participant (DP).

Trading Members (TM): -

Trading members are members of an authorized Exchange. They can trade either on their own account or on behalf of their clients including participants. The exchange assigns a trading member ID to each trading member. Each trading member can have more than one user. The number of users allowed for each trading member is notified by the exchange from time to time. Each user of a trading member must be registered with the exchange and is assigned a unique user ID. The unique trading member ID functions as a reference for all orders/trades of different users. This ID is common for all users of a particular trading member. It is the responsibility of the trading member to maintain adequate control over persons having access to the firm's User ID.

Dematerialization and its Procedure: -

Dematerialization is the process by which physical certificates of an investor are converted to an equivalent number of securities in electronic form and credited in the investor's account with its Depository Participant (DP).In order to dematerialize certificates, Investor will have to first open an account with a DP and then

request for the dematerialization of certificates by filling up a **Dematerialization Request Form (DRF)**, which is available with DP and submitting the same along with the physical certificates. Ensure that the certificates are defaced by marking: - "Surrendered for Dematerialization" on the face of the certificate before the certificates are handed over to the DP.

In order to get Demat securities in case of purchases made, an investor may give a one-time standing instruction to its Depository Participant. This standing instruction can be given at the time of account opening or later. Alternatively, investor may choose to give a separate receipt instruction to its Depository Participant for receiving every credit. For pay-in obligations, investor should instruct it's DP to give 'Delivery Out' instructions to transfer the shares from it's beneficiary account to the pool/principal account of it's trading member through whom investor have sold the shares. The details of the pool/principal account of it's trading member/ clearing member to which shares are to be transferred, security, quantity etc. should be mentioned in the 'Delivery Out' instructions given by investor to it's DP. The instructions should be given well before the prescribed securities pay-in day. SEBI has advised that the 'Delivery Out' instructions should be given at least 24 hours prior to the cut-off time for the prescribed securities pay-in to avoid any rejection of instructions due to data entry errors, network problems etc.

Auction of Shares

What is an auction: -

1. If any member fails to deliver the quantity of any security or any security vis-à-vis the deliverable obligation of the member, such quantity of securities or such securities are put up for auction by the Exchange. The Exchange purchases the requisite quantity of the security in auction market and delivers them to the buying trading members, who either did not receive or received part delivery.

2. On account of short / non delivery of securities, the selling trading member's account is debited on T+2 day with an amount equal to the value of these securities. This value is arrived at by considering the closing price into the quantity of each of the securities short / not delivered. The closing price is the price prevailing on preceding day to the pay-in day.
3. On T + 3 day, the Exchange places an order in the auction market to buy these undelivered quantities of securities. Based on the auction price four scenarios can emerge.

   Scenario1: - - Where the auction value equals the debited amount for the securities bought in auction, the trading member who did not deliver the securities does not have to pay any additional amount by way of auction difference.

   Scenario2: - - Where the auction value is greater than the debited amount. For the securities bought in auction, the trading member who did not deliver the securities will be required to pay the difference if the amount for the securities bought in auction is greater than the amount debited.

   Scenario3: - - Where the auction value less than the debited amount. For the securities bought, the trading member who did not deliver the securities will not get difference. This amount will go to Investor Protection Fund.

   Scenario4: - - Failure to receive securities through auction. If the short quantity of the security or the security is either not available in auction market or when the selling member in the auction fails to deliver in part or full the quantity of the security against his obligation to deliver, on auction pay in day, the Exchange effects the close-out at the highest price prevailing in the Exchange on the day of the original trade till the day of the closing out(end of auction day) or 20% above the official closing price

on the auction day, whichever is higher.

The four scenarios are explained with an example in the table given below: - -

Assume 10 shares of XYZ Company are sold at a price of Rs.100 in normal market on a Trading Day (T).

Price details for securities of XYZ Company in the Normal Market.

Price of xyz security	Open	High	Low	Close
Trading Day	100	105	97	100
T + 1	100	102	99	100
T + 2 (Pay-in day)	101	103	98	101
T+3(Auction day)	99	102	99	100

In the table, the highest price prevailing from the date of trade to the date of close out is Rs.105.00 and closing price on Auction day in normal market is Rs.100. Therefore applicable close out price in the above case will be Rs. 105.00 (highest price during the period) or Rs.120.00 (i.e. 20% above the closing price on the auction day in the normal market), whichever is higher. In this case, closing price shall be Rs. 120.00

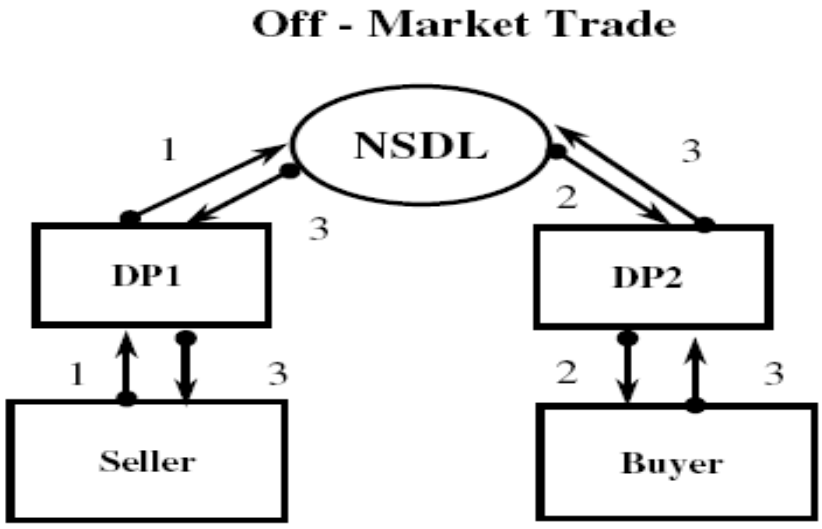
Calculation of Auction Difference for each Scenario

Particulars	Scenario 1 (Auction Price = Rs. 100)	Scenario 2 (Auction Price = Rs. 110)	Scenario 3 (Auction Price = Rs. 90)	Scenario 4 (No auction)
	Auction value equal to debited amount	Auction value greater than debited amount	Auction value less than debited amount	No securities in auction (Close out price)
Amount debited to Short Delivering TM (Valuation debit) (Rs.100*10 Qty.)	1000	1000	1000	1000
Auction Price / Close out price	1000	1100	900	1200
Auction Difference amount	-	(+)100	(-) 100	(+) 200

*As per the **SEBI directive**, the difference between the debited amount and the auction value is treated as under: -*

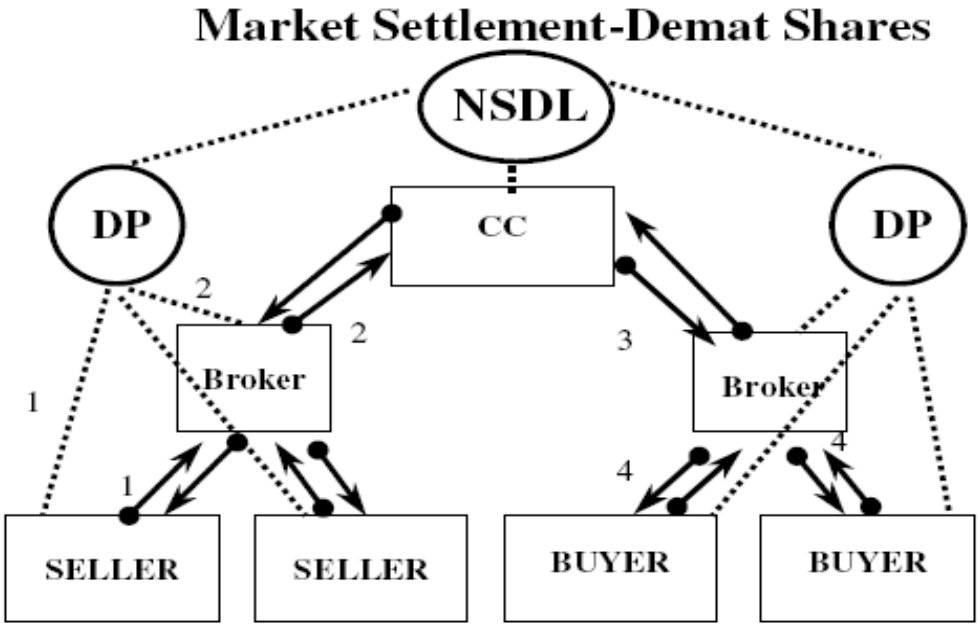
1. *Where auction value is more than the debited amount, the difference amount is debited to and recovered from the short / non-delivering member.*
2. *Where auction value is less than the debited amount, the difference amount is to be credited to the Investor Protection Fund.*
3. *Auction settlement is held two days after auction trade day (i.e. auction takes place on T+3 day, therefore auction settlement takes place on T+3+2 = T+5 days). Can Investor avail the benefit of the auction mechanism, if Investor have shares to deliver? Yes, Investor can inform its trading member to sell its securities in the auction. However, investor should ensure that the securities are readily available for delivery. Securities not delivered on auction pay-in day are directly closed out at a price specified by the Exchange/Clearing Corporation.*

Settlement of Off-Market Transactions



1. Seller gives delivery instructions to his DP to move securities from his account to the buyer's account.
2. Buyer automatically receives the credit of the securities into his account on the basis of standing instruction for credits.
3. Buyer receives credit of securities into his account only if he gives receipt instructions, if standing instructions have not been given.
4. DP needs to be extra careful in verifying the signature of the client if large quantities of securities are being debited to the account.
5. Funds move from buyer to seller outside the NSDL system.

Settlement of Market-Transaction



A market trade is one that is settled through participation of a Clearing Corporation. In the depository environment, the securities move through account transfer. Once the trade is executed by the broker on the stock exchange, the seller gives a delivery instruction to his DP to transfer securities to his broker's account. The broker has to then complete the pay-in before the deadline prescribed by the stock exchange. The broker removes securities from his account to CC/CH of the stock exchange concerned, before the deadline given by the stock exchange. The CC/CH gives pay-out and securities are transferred to the buying broker's account. The broker then gives delivery instructions to his DP to transfer securities to the buyer's account. The movement of funds takes place outside the NSDL system.

1. Seller gives delivery instructions to his DP to move securities from his account to his broker's account.
2. Securities are transferred from broker's account to CC on the basis of a delivery out instruction.
3. On pay-out, securities are moved from CC to buying broker's account.
4. Buying broker gives instructions and securities move to the buyer's account.

Settlement Number

Trading periods of each of the market segments is identified by a settlement number. Every settlement number has a trade beginning day, trade-ending day, settlement pay-in day and settlement pay-out day. Stock exchanges divide a period of one year [generally calendar year] into several settlement periods and allocate settlement number for each settlement-period. All these days collectively are called 'settlement calendar'. DPM system will give complete details of settlement calendar for each stock exchange. The DI slip should contain the settlement number for which the securities are being transferred to the clearing member.

CLIENT ACCOUNTING IN BROKER'S BOOKS

Client Account is an account maintained for any individual or entity being serviced by an agent (broker, members), for a commission. A client's business must be segregated from the broker's/members/principal's own business and clients' money should be kept in segregated account.

Definitions

(a) "**Client**" means and includes any individual, who transacts in securities through the auspices of the member broker herein named as such, and seeks to transact such business in securities through the use of E Trading facilities of the said member broker.

(b) "**Depository**" refers to the National Securities Depository Limited, Mumbai. (NSDL)

(c) "**Online Trading**" means carrying on the business of stock broking using electronic systems as Order Routing mechanisms to forward orders to the electronic system of the Stock Exchange.

(d) "**Exchange**" refers to the National Stock Exchange of India Limited. (NSE)

(e) "**Member Broker**" is Anand Rathi Securities Ltd; a stock broker registered as a Stock Broker in terms of the SEBI (Stock Brokers and Sub-Brokers) Rules and Regulations, 1992 and is registered as Stock Brokers with SEBI in terms of the said rules and regulations.

*(f) "**Trading Account**" shall mean a rupee account opened by the client with the member broker, which is linked to the online trading facility through the web-site.*

(g) "**Depository Participant**" or "Designated Depository Participant" means ANAND Depository Participant or any other depository participant as may be specially designated as a Depository Participant by Anand Rathi Securities Ltd, respectively.

(h) "**Bank**" or "**Designated Bank**" means any bank as may be notified from time to time on the website, with whom the member broker has made arrangement in respect of the Online Trading Services to be provided to the clients in terms of the presents.

(i) "**Bank Account**" or "**Designated Bank Account**" means an account opened, maintained and operated by the clients with a bank in terms of and pursuant to the requirements mentioned in the agreement.

(j) "**Demat Account**" or "**Designated Demat Account**" means an account maintained in terms of the Regulation 42 of the SEBI (Depositories and Participants) Regulations, 1996 by ANAND Depository Participant in its capacity as a Depository Participant or any other Depository Participant as may be specified by Anand Rathi Securities Ltd.

(k) "**Margin Trading**" refers to trading in securities by paying an advance amount as margin to the member broker in cash and 'or as securities, in the following events: -

1. Purchase of securities of a value in excess of the money with the purchaser, in the Trading Account, at the time when the order is placed on the website.

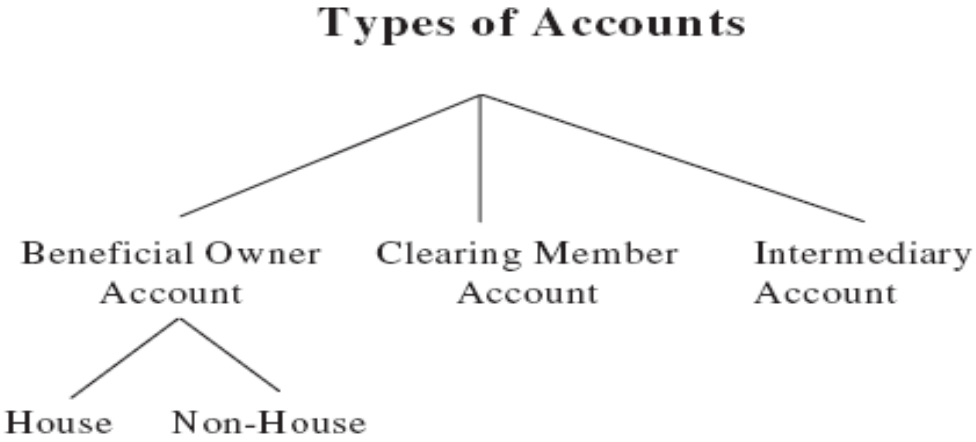
2. Sale of securities in excess of the securities available in the demat account of the seller on the date when the order is placed on the website.

(l) "**Pay-in Date**" means the day on which the clearing house of the stock exchange receives in the securities and monies due from the members pursuant to their transactions in securities, over the period of the settlement cycle of the Exchange.

(m) "**Pay-out Date**" means the day on which the clearing house of the stock exchange pays out securities and monies due to members pursuant to their transactions in securities, over the period of the settlement cycle of the Exchange.

Types of Accounts

Type of depository account depends on the operations to be performed. There are three types of demat accounts which can be opened with a depository participant viz. (a) Beneficiary Account *(b) Clearing Member Account and (c) Intermediary Account*[#], and other accounts are margin account, discretionary account, day trading account and online trading account.



- A DP may be required to open three categories of accounts for clients - Beneficiary Account, Clearing Member Account and Intermediary Account.
- A Beneficiary Account is an ownership account. The holder/s of securities in this type of account own those securities.
- The Clearing Member Account and Intermediary Account are transitory accounts. The securities in these accounts are held for a commercial purpose only.
- A Clearing Member Account is opened by a broker or a Clearing Member for the purpose of settlement of trades.
- An Intermediary Account can opened by a SEBI registered intermediary for the purpose of stock lending and borrowing.

These accounts are for members which they have to open with the exchanges

Beneficiary Account[1]

This is an account opened by investors to hold their securities in dematerialized form with a depository and to carry out the transactions of sale and purchase of such securities in book entry form through the depository system. A beneficiary account holder is legally entitled for all rights and liabilities attached to the securities (i.e. equity shares, debentures, government securities, etc.) held in that account. Therefore, the account is called beneficial owner account". A beneficiary account can be in the name of an individual, corporate, Hindu Undivided Family (HUF), minor, bank, financial institution, trust, etc. or the broker himself for the purpose of his personal investments in demat form. The account is opened with a DP. A new sub-type viz. "Margin Account" has been added to the Client types viz.; 'Resident' and 'Body Corporate' under Client Maintenance Module in DPM Application Software (DPMAS).The new sub-type "Margin Account" is added to enable Clearing Members (CM's) to open beneficiary accounts to hold securities for client margin purposes. New sub-types are also added to enable promoters to separately hold securities issued as "Promoter" of the company.

House account vs. non-house account - An account opened by a DP for the custody of and transactions in its own investments is referred to as a house account, and all other beneficiary accounts are referred to as non-house account. DP's are required to open house accounts for their own investments to prevent co-mingling of their assets with that of their clients. Neither the Depositories Act nor the regulations made under the Act lay down any specifications about who can open a beneficiary account. Since all beneficial owners are deemed to be members of a company (under section 41(3) of the Companies Act), only those who are eligible to become members of a company under the Companies Act, can open a beneficiary account with a depository. Thus, all legal entities with the exception of partnership firms can open an account in the depository system.

Margin accounts

With a margin account investor's are effectively borrowing in order to pay for the stocks they have just bought. With a margin account, depending on investor's credit rating with its stockbroker, investor's can borrow up to 50% of their purchase order. The remaining 50% they are required to pay in the normal way.
Along with learning the T+3 rules, those who open a margin account need to familiarize themselves with the margin call rule. A margin call occurs when the stock investor's have bought drops to the level where the stockbroker believes their investment is at risk. As such, they issue investor's with a margin call, following which they are required to either deposit more money into their account to lessen their risk of loss or sell the stock immediately (taking the loss with it). However, if the stock continues to fall, certain stockbrokers will then issue a sell order, regardless of whether or not investor's deposit money into the account to cover the broker's position. [2]

All-in-all, margin accounts can be used to make large profits. However, it is also possible to lose vast sums of money very quickly if investor's are not sure what they are doing with margin accounts.

Discretionary accounts

As the name suggests, having a discretionary account means investor's stockbroker is allowed to buy and sell stocks at their discretion – without having to notify investor's beforehand of what they plan to do.
Because of the blank authorization investor's give to their stockbroker with a discretionary account, their really do need to trust them implicitly and in most cases, unless the broker is a blood relative, they'd do well avoiding this type of broking account.

1 Www.nseindia.com/investor/education
2 http://www.a-z-stock-brokers.com/accounts.html

Day trading accounts

A current fad among stock market investors and traders is day trading. In short, with day-trading we mean to buy and sell a stock on the same day. At the end of the day investor's then total up their buys and sales to see if they have made or lost money. However, because of the risk associated with taking short-term positions in stock, day trading should really be left until such time as they know quiet a lot about stock markets, how they work, and how to make money out of them.

Online trading accounts

In addition to the types of accounts above, these days it is also possible to have an online trading account with a broker that allows investor's to give buy and sell instructions via the internet. In most cases, the broker also has internet capabilities and the whole transaction is done electronically.

As one embarks on online stock trading, it is imperative to open an account with a stock broker. Discount and Online Brokers handle internet trading as opposed to a full-service broker, hence choosing the best online accounts that have good reviews is important. Normally, there are ***4 different types*** of online stock brokers, the long-term (for those people who would want to invest for the future), medium-term, short-term and that day investing broker. They trade in stock markets like NSE and BSE.

A person investing in stocks can open one or more of the 3 different options of accounts with a broker. The ***1st one is the cash account*** which is the simplest to open. The broker will require enough funds in this account before making any transactions. Before trading, funds in these accounts are usually deposited in an interest-gaining account until trading time. When an order is made to buy stock, the broker transfers funds from the cash account to the investor's preferred brokerage account. Others are margin account and discretionary account which are discussed above.

(Cliental accounting deals with payment of share purchased, delivery of share certificate and refunds etc. which is discussed earlier)

Bank Reconciliation Statements (BRS)[1]

In lay man language BRS means

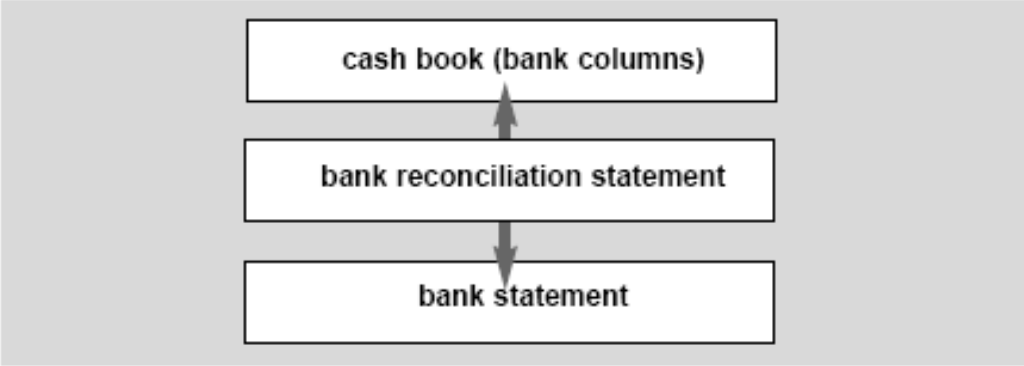
A form that allows individuals to compare their personal bank account records to the bank's records of the individual's account balance in order to find out any possible reasons/discrepancies due to difference in balances in both books.

As per Investopedia BRS means

The Businessman prepares the Cash Book and the Pass Book is prepared by the Bank (here by cash book we mean three column cash Book). But as both the books are related to one person and same transactions are recorded in both the books so the balance of both the books should match i.e. the balance as per Pass Book should match to balance at bank as per cash book. But many a times these two balances do not agree then, it becomes necessary to reconcile them by preparing a statement which is called Bank Reconciliation Statement. A ***BANK RECONCILIATION STATEMENT***[2] may be defined as a statement showing the items of differences between the cash Brook balance and the pass book balance, prepared on

1 http://www.nos.org/srsec320newE/320EL9.pdf
2 http://www.outsourceaccountingservices.com/bank-statement-reconciliation.html

any day for reconciling the two balances. 'Reconciliation' [3]between the cash book and the bank statement final balance simply means an explanation of the differences. This explanation takes the form of a written calculation.



In Anand Rathi we use BRS as a method of reconciling the bank statement with our records in order to check whether all the entries are made properly or not and also to check whether we are making the entries accordingly or not and also to minimize discrepancies arising out of different transaction being conducted on daily basis. Out of which we reasons for differences can be.

- Cheque issued but not yet presented to bank for payment
  - To resolve such query we manual check in our software as to which entry is made lately and which transaction is not yet presented to the bank.
- Cheque deposited in bank but yet not collected.
  - To resolve this query we see the cheque collection report submitted by the bank to us and see as to which cheques are submitted and which cheques are not.
- Amount directly deposited in bank.
  - Sometime client directly deposit amount in our bank account then we don't get the entry for the same. Thus here we just reconcile with the client whether he made the payment or not.
- Bank charges.
- Interest and dividend received by bank.
- Direct payment made by bank on behalf of clients.
- Dishonor of cheque/bill discounted.
- Error committed on recording transaction by the firm or by the bank.

RECO Report: -

It is a detail report about the transaction of the client. This report is about the deposit's made by the client to its trading member and also about the amount which the trading member has to pay back to the client on his demand. It is one of the most important reports and it is prepared daily to clarify the accounts to that share can be transferred in the clients accounts and total final settlement could be done.

Manual Bank RECO: -

This report is the same as to Reco Report with only difference that this report has to be downloaded from the respective bank site in order to make and check entries in the respective accounts.

Bank Reconciliation application helps in streamlining and improving the reconciliation of bank

3 http://www.osbornebooks.co.uk/files/af_bookkeeping.pdf

statements with general ledger bank accounts. It makes important updates to ARSL software General Ledger and receives timely entries from the other applications. With Bank Reconciliation, it's easy to know which checks have cleared, which transactions are outstanding, which bank accounts contain what amounts, and exactly where the money is. **BANK RECO** helps in finding errors and record differences between brokers statement books and the bank easily with two types of reconciliation from the Reconciliation Report—book-to-bank and bank-to-book. Reconciling is fast and simple. Broker can clear transactions with a single mouse click—line by line by a specific range of checks or all at once. If broker make a mistake, reversing a selection is just as easy.

Bank Reco helps to make the best decisions about the day-to-day operations of client's payment business. Bank Reconciliation gives the accurate information needed to make the most of cash. Using multiple bank accounts for Accounts Receivable/Sales Order deposits and Accounts Payable/Purchase Order checks gives us the flexibility to receive money and to disburse money from different accounts. Transactions function is used to enter deposits, disbursements, adjustments, and transfers that have not been created through other applications.

Additional Bank Reconciliation Features: -[1]

- Unlimited number of bank accounts with the Bank Accounts screen
- Account balance automatically displayed from the general ledger account if Bank Reconciliation is interfaced with General Ledger
- Last statement balance and statement date updated when reconciled
- Enter recurring adjustments only once
- Enter a transaction in any currency if the multicurrency option is on
- Void a check before it is sent or stop the payment of a check before it is cashed
- Void any check after it has been posted
- Define own default descriptions and references
- Inter-account transfers and manual adjustments
- Post transactions to multiple years
- Reprint the last posting log
- Stop the payment of any check, even if it was posted from an interfaced application

CASH MANAGEMENT SYSTEM (CMS)

Cash Management services is a new entrant in the Indian Banking Scenario. Cash Management Services (CMS) is a mechanism to efficiently manage cash flow in order to reduce risks, minimize costs and maximize profits. Generally Cash Management comprises integrated collection, payments, liquidity management, and receivables functions. Speedy collection of outstation instruments is one of the major products under CMS.

CMS offers customized collection and payment services, which allow companies to reduce the realization time of cheques and streamline their cash flows. As the companies get access to their funds faster, the need for companies to borrow cash comes down, and lowers their interest payout. In return, the banks charge the companies a fee based on the volume of the transaction, the location of the cheque collection centre and speed of delivery. Some banks even buy the cheques and pay the corporate immediately; charging an interest fee for the number of days it takes them to en cash the cheques. Since CMS allows companies to track their cash flows on a daily basis, financial decisions happen faster and

1 http://www.osas.com/downloads/.PDF

more efficiently.

Need of CMS

Managing liquidity is complex, as cash is volatile. For a business spread across various locations, managing outstation fund-collections and disbursements can often be a time-consuming, expensive and exasperating proposition.

Delays of days or even weeks in realizing outstation cheques, constant tracking and follow-up to transfer funds from outstation collection accounts, uncertainty and delays regarding information on the fate of the cheque is common. These affect the company's liquidity position and it has to bear a higher interest cost. A remedy to this hazard surely is the practice of cash management.

Business entities with large network of branches, sales outlets often have client base with wide geographic spread. Getting receivables through cheques, drafts and other clearing instruments into their possession itself consumes considerable time. Besides, often they find it difficult to have access to funds at the required time since banks pass on the credit only on realization. Corporate are not certain of the time lag to get the instruments collected through normal channel of banks and get the funds credited to their accounts which hinders the treasury management portfolio and strain their liquidity and profitability. Cash Management offers guaranteed credit and timely MIS with customized formats.

CMS brings predictability of cash flows and helps in liquidity management." Sectors such as Brokerages, telecom, utility services, mutual funds and insurance companies benefit most from it because they can pool their receipts from different locations in different forms (online, cheques, ECS and credit cards) in a flawless manner.

Businesses being globalised and corporate clients increasingly feeling the need to manage operations efficiently, clients are placing a much greater emphasis on the need to have access to **"anytime" and "anywhere"** information. It is not surprising, therefore, that brokers and their corporate clients have quickly realized the role that the Internet can play in this regard. Over the years, we have seen a strong shift, from text-based systems to computer-based solutions and finally to the present situation, namely, web based cash management systems. The reason for increasing no. of online transaction and users is – the fast increasing opportunities for small businesses through the globalization of corporate and business broking, the rapid integration between cash management and trade services, and high-end technology no longer being the exclusive domain of large clients.

Benefits from a client's point of view

As the demand to move from a thick-client to a thin-client system increased among corporate clients, and the advantages of doing so were somewhat obvious, no corporate or small business wanted to lose functionality in the bargain. Therefore, it was natural to expect that clients would want to have and retain every bit of functionality around the traditional services of collections, payments and reporting. The **main features** typically offered through web based cash management can be classified into: - **payment management, liquidity management, electronic collections and information reporting.** Other features such as **single sign-on and billing engine complete the offering.** Interfaces with various payment systems, different services associated with fund transfers (stop payments, cheque imaging, positive and reverse positive pay, retail and corporate lockbox facility, etc.) are all considered passé today by corporate clients. Increasingly, clients are demanding cross border settlements and integration with mainline treasury functions. By web-enabling their cash management service, brokers are able to offer

them operational flexibility. An obvious advantage that corporate clients want to derive in their adoption of Internet-based systems is the efficient management of funds and risk management. Corporate treasurers are highly conscious of carrying idle cash and want to do everything possible to make judicious use of the funds available. This necessitates the integration between the cash management system deployed within the organization, and the general ledger, accounts receivables and accounts payables systems within the company. The more seamless the integration between these systems, the more timely and accurate will be the reporting function effective cash management requires integration and availability of information, not just from sources within the organization but from external sources too. It also demonstrates that cash management today assumes a highly strategic dimension for clients.

Benefits from a broker's point of view

Just as in the case of corporate clients, brokers also want to move to web-based solutions but not at the expense of functionality. Creating client "stickiness" through "one-stop-shop" features, such as providing consolidated information, can be very rewarding for brokers. As brokers become more familiar with technological advances, they too have become more demanding of their vendors. The crux lies in leveraging technology without compromising on the functionality available. The requirement is to make available tools and services that make the task of the user much easier. There are several new technology features that are demanded by the brokers from a web-based cash management systems vendor: -

- **Single sign-on** – integrated information reporting from various back-end systems such as treasury, cash management, commercial loans, trade finance, etc;
- **Segmentation of clients** – traditionally in the retail area, but now increasingly being used to understand and cater to the needs of the corporate and business brokering segments;
- Integration with multiple channels of delivery, as we move into an era of possibly making all functions available to clients across all touch-points; and
- Real-time reporting and others.

The drivers for the adoption of web-based systems may slightly differ between brokers and its clients. However, both brokers and their corporate and business clients see sufficient value in web-based systems to adopt them brokers, to a certain extent, achieved the above benefits by moving their systems from PC brokering thick-client solutions to web-based business e-brokering solutions. However, what is prompting brokers to differentiate by upgrading their solutions into a fully fledged web-based cash management offering. Brokers everywhere have been criticized for only seeing a part of the large client relationship picture, brokers are aware of the "total relationship" approach, however they are saddled with antique back offices, complicated by myriad ad hoc surround systems, and they found themselves tied up in a situation where flexibility was hard to come by. Relatively new and flexible business e-brokering solutions and advancement in technology offered the hope of integrating silos and the base for extending fully fledged cash management through the web.

Additionally, the changing dynamics of the end clients' increasing awareness of cost means the margin for error is slowly reducing. . Also, it is easier to pass on the charges for a mistake committed by the client than an error committed by a broker staff member. A fully fledged offering in the form of web-based cash management also helps brokers to increase fee-based income through value-added offerings and segment clients, through adjustment of the offering base. On the cost side, automatic entry reduces cost. Centralized handling and consolidations help the brokers to scale up without significantly increasing headcount.

Fund Management: -

Management of net funds available for investment and external funds purchased from other banks. Funds management attempts to match the cash flow needs of a bank against maturity schedules of its deposits as loan demand increases or decreases. Funds management is more of a Treasury function than Asset-Liability Management, which deals mainly with control of interest rate risk and liquidity risk, and the pricing of loans in specific time periods.

Funds management examines the mix of funds raised by a bank, including large rupee deposits, non deposit borrowings, and credit advances from a RBI or Other Banks. Its aim is supplying funds sufficient to meet the bank's asset growth objectives at the lowest funding cost, and at acceptable levels of risk (credit risk, liquidity risk, and interest rate risk).

On the asset side of the balance sheet, funds management deals with the control of discretionary portfolios by the corporate treasurer, including the investment securities portfolio and trading account assets. On the liability side, it focuses on wholesale sources of funds, including credit advances from a RBI or Other Banks, and hedging techniques, such as interest rate futures and interest rate swaps to control these balance sheet exposures. It is also called balance sheet management.

- **It means managing the fund of a firm.** Investment management is the professional management of various securities (shares, bonds etc.) and assets (e.g., real estate), to meet specified investment goals for the benefit of the investors. Investors may be institutions (insurance companies, pension funds, corporations etc.) or private investors (both directly via investment contracts and more commonly via collective investment schemes e.g. mutual funds).
- The term asset management is often used to refer to the investment management of collective investments, while the more generic fund management may refer to all forms of institutional investment as well as investment management for private investors. Investment managers who specialize in advisory or discretionary management on behalf of (normally wealthy) private investors may often refer to their services as wealth management or portfolio management often within the context of so-called "private banking".
- The provision of 'investment management services' includes elements of financial analysis, asset selection, stock selection, plan implementation and ongoing monitoring of investments. Investment management is a large and important global industry in its own right responsible for caretaking of trillions of dollars, euro, pounds and yen. Coming under the remit of financial services many of the world's largest companies are at least in part investment managers and employ millions of staff and create billions in revenue's.
- Fund manager (or investment adviser in the U.S.) refers to both a firm that provides investment management services and an individual who directs fund management decisions.

REPORTS

Valan Report: - (Date wise Settlement Balance Sheet (Valan))[1]

The process of daily settlement was brought up LC GUPTA committee in 1996, Valan word is as such not defined however NSE has discussed about trade report which has taken its functionality from Valan. The only way to define is through the daily use of the word. The word is used to define the summary of the daily transaction of the broker, in simple words it's the daily settlement balance sheet i.e. total transaction performed at the broker ends, means by its client. Valan is the summary of a brokers, trade report is summary of the particular terminal. Every member prepares and manages Valan but gives a different report to it, it may be called as trade file, brokers report etc.

Trade Report Once the market closes, the details of trading activities done by the user are generated as trade reports. They are downloaded on the workstation of Corporate/Branch manager. Downloaded reports are stored at the workstation as well as sent to the printer. This allows the user to reprint any report any time. Members can request for reports after the reports are generated by the system and before the market opens for trading on the next trading day. A separate button 'Report' has been provided on the logon screen for requesting report download. After reports are generated by the Exchange, a message "Interactive reports can be taken now" is displayed on the message window in the market watch screen. The member has to then request for the reports from the logon screen by entering **the user id, trading member id and password and by invoking 'Report**'. A message "Downloading reports in directory. Please wait." is then displayed. In case of incorrect logon details a message "Invalid sign on" is displayed.

The x25 address check is also performed by the system for report download and therefore, allotted user ids cannot be used interchangeably from any other location apart from the specified location. Sign on is not allowed." is displayed at the logon screen. At the exact time of receipt of reports a pop up box stating the report name and its receipt status appears. Check for the user id and the report receipt status for all the three reports. A message "Report downloaded successfully" is displayed. The reports are downloaded in REPORTS directory for the given trading day and user id. Members can also view their reports in MSDOS editor. If a user attempts to request for reports during market hours a message "Connection to the system cannot be established. Report process may not be up on the host" is displayed. **Reports are downloaded on request only from corporate manager and branch manager**. Reports are available as a spool file (printable format) and also as a data file (comma delimited format). The corporate manager receives reports with extension coo, col, ctd (printable format) and cod, cld, ctt (comma delimited format). These reports contain branch-wise details of trades and orders of all branches of the trading member and further, for all dealers of the firm. The branch manager receives reports with extension boo, bol, btd (printable format) and bod, bld, btt (comma delimited format). These reports contain dealer- ise details of trades and orders for all dealers placed under that branch. The dealers are users at the lower most level of the hierarchy. They do not have access to information on other dealers, on the same branch or other branches of the same firm and therefore, do not receive any reports. In case an inquiry user or dealer requests for report download, a message "Only Corporate and Branch Managers are allowed to request for reports" is displayed.

1 http://www.mkttechnologies.com/Product/coremodules_class.asp

NSE Segment

- Trade for Trade S Rolling Settlement (Settlement Type 'W') [1]
- Normal Settlement (Settlement Type 'N') **(ROLLING T+2) Capital** Market segment

BSE Segment

- BSE has, for the guidance and benefit of the investors, classified the scrip's in the Equity Segment into 'A', 'B','T', 'S', 'TS' and 'Z' groups on certain qualitative and quantitative parameters.
- "C" group which covers the odd lot securities in 'A', 'B1', 'B2' and 'Z' groups and Rights renunciations in all the groups of scrip's in the equity segment.[2]
- A" "B1, B2" "C" "Z" are from the equities and "F" is from debt market.
- **'A'** Group is a category where there is a facility for carry forward (Badla) to the next settlement cycle. These are companies with fairly good growth record in terms of dividend and capital appreciation. The scrip's in this group are classified on the basis of equity capital, market capitalization, number of years of listing on the exchange, public share holding, floating stock, trading volume etc.

'B1, B2' Group is a subset of the other listed shares that enjoy higher market capitalization and liquidity than the rest.

'C' group covers the odd lot securities in 'A', 'B1' & 'B2' groups

'T'' Also termed as the trade to trade group this category comprises of shares which have to be settled in delivery for all buys and sells and square off of bought and sold positions during the day is not permitted. This is a part of the surveillance from the BSE to counter any awkward unwarranted movements in such scrip's.

'Z' Group category comprises of shares of the companies which does not comply with the rules and regulations of the Stock Exchange and are at times suspended from trading due to the above said reasons.

The trading cycle for the above scrip's is from Monday to Friday and starting sat (carry forward for scrip's) the settlement by payment of money and delivery of securities in the following week.

'F' Group represents the debt market segment.

MIS REPORT

MIS or Management Information System is a computer based system used by most organizations worldwide for transforming data into useful information for better decision making. It helps management make better plans and carefully organize business operations.

Management information system is used for generating reports including status reports, financial statements, performance reports etc. These reports are essential for analyzing different aspects of business. These reports also help to answer 'what-if' questions like what would be the effect on cash flows of a company if the credit term is changed for its customers etc.

1 http://www.nse-india.com/content/nsccl/cm_sett_calendar.htm

2 http://www.bseindia.com/about/tradnset.asp

MIS reports also support decision making and it helps to integrate the decision maker and the quantitative model being used. These automated systems allow managers to make decisions for smooth & successful operation of businesses. The system includes computer resources, people, and procedures used in the modern business enterprise.

Types of Systems

- Accounting Management Information System: - The system shares all accounting reports at different levels of management

- Financial Management Information System: - The system provides financial information to managers in an organization. Based on these reports, managers analyze historical and current financial activity, and also project future financial needs. It is also used for monitoring and controlling the use of funds over time using the information developed by the MIS department.

Professional MIS reports are made by accounting firms for accurate analysis. These reports are comprehensive and help the middle and top management take important decisions regarding the finance, accounting and overall business operations

Road Ahead of Stock Market

Stock Market is a booming sector, and it welcomes all the changes with due course of time. The features which exchange can use in future to facilitate investors are: -

- **Mobile Trading: -**

  With changing scenario of information technology and new advancement in mobile technology, exchange can provide a facility for the investors to trade through there own mobile. It will be slightly different from what is presently provided by the member in name of Mobile Trade. In this feature the investor need not to call on any no., he himself can put is trade through the mobile. Just like pocket pc are helping public to save time and money both, in the same way this new concept can help the investor to avoid calling the customer care no. of the trader for putting up trade. Mobile trading would provide more secure trading, as only the user of the mobile would be able to use the mobile and no one else could. This will help the exchange to reduce the no. of discrepancy arising due to lack of communication or miscommunication between the broker and the client. Mobile trading would change the scenario of trading. It would be beneficial for exchange, broker and client all. Brokers would get charges from the client for using such services and would not be held liable for any mistake as the client himself is using and placing the trade. Investor would be in a greater benefit as there would be no chances of wrong trade by the broker or any misuse of funds by the broker. Client can always have a secure excess to there account.

- **Messaging/Mailing: -**

  Another feature which exchange can adopt is placing orders via message/mailing. In this facility the client can either message or send a mail to the investor for placing an order. This facility can be proved beneficiary if used with proper care and command. Complete record of messages and mails should be maintained. Order should be placed only from the no. and mail id provided by the investor in KYC form, and only to that no. which is provided to the investor by the trader during filling up of form. For more secure excess and safety for investor and the trader, the no. and the email-id of trader which is supposed to be used for receiving order by the investor should be kept under complete surveillance to check back if any fault has been done or not.

- **Mobile Payment: -**

  Other then just placing order/trades, these services can be used to make payments and receive back confirmation messages. As the present age has changed from e-banking to mobile-banking, the same can be used to provide facilities to the investors. Client can pay for there order through mobile banking option, facilitating investor to avoid squaring-off of its shares, and it can also help the broker as it will ensure timely pay-in. The orders and executed can be confirmed to

investor via sms and mails, thus provided an edge to the broker over others, and avoiding any future misunderstanding.

Miscellaneous

Types of Order in Stock Market

- **Normal orders-**When you sell shares without marking delivery it is treated as a short sale and will be executed if there are sufficient funds available to execute the transactions.

- **Delivery Mark orders-**This intimates the system to take delivery for the order placed. In case of buy order the system will block the entire amount for the order placed. In case of delivery sell order the system will check your demat stock availability and the transaction will go through only if the stock is available in your Demat account, once the order is accepted in the exchange the quantity put for sale is blocked. Once the sell order is executed the entire amount generated from the sell trade will be available for trading for further trading.

- **BTST** Orders is Buy Today Sell Tomorrow without Guarantee. They have been discussed in detail under BTST

- **Stop Loss Order-**Stop loss order-An order placed, which gets activated only when the market price of the relevant scrip reaches or crosses a threshold price, which is called trigger price. Until then the order does not enter the market but sits with the NSE.

Mark to market Settlement

MTM Settlement means that any notional and/or booked losses or profits of the members based on outstanding position at the end of a trading day and loss / gain on T + 1 day is either debited or credited to Member's settlement account. Notional gain / loss on open positions, at the end of the trading day, are computed with reference to the closing price of the said contract with the traded price of the contract.

The CM's who have a loss are required to pay the mark-to-market (MTM) loss amount in cash which is in turning passed on to the CM's who have made a MTM profit. This is known as daily mark-to-market settlement. CM's are responsible to collect and settle the daily MTM profits/losses incurred by the TMs and their clients clearing and settling through them. Similarly, TMs are responsible to collect/pay losses/profits from/to their clients by the next day. The pay-in and pay-out of the mark-to-market settlement are affected on the day following the trade day (T+1). The mark to market losses or profits are directly debited or credited to the CM's clearing bank account. In case a futures contract is not traded on a day, or not traded during the last half an hour, a 'theoretical settlement price' for unexpired futures contracts is computed as per the following formula:

$$F= S*e\ rT$$

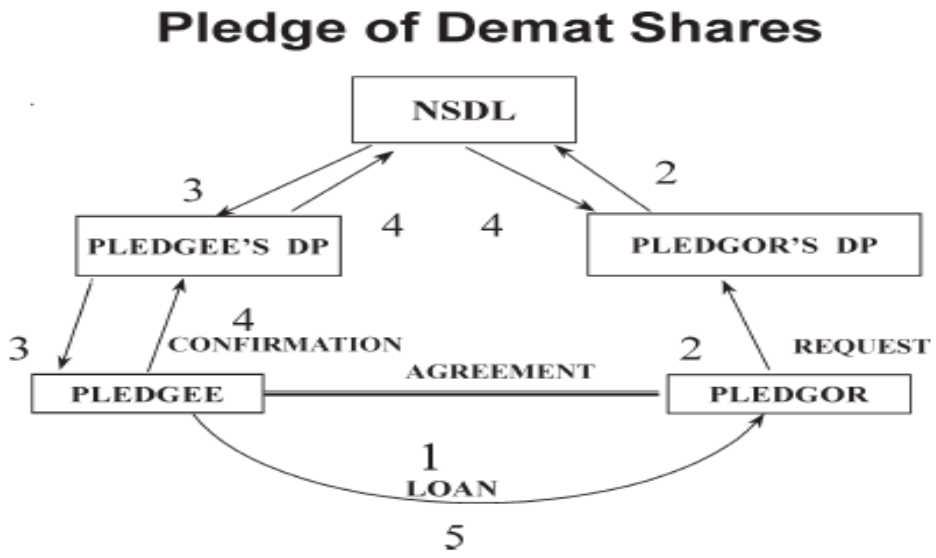
Where

F = Theoretical futures price
S = Value of the underlying index
r = Cost of financing (using continuously compounded interest rate) or rate of interest (MIBOR)
T = Time till expiration
e = 2.71828

After completion of daily settlement computation, all the open positions are reset to the daily settlement price. Such positions become the open positions for the next day.

Loan against Securities- LAS

The securities held with NSDL may be used as collateral **to secure loans and other credits by the clients**. In a manual environment, borrowers are required to deliver pledged securities in physical form to the lender or its custodian. These securities are verified for authenticity and often need to be transferred in the name of lender. This has a time and money cost by way of transfer fees or stamp duty. If the borrower wants to substitute the pledged securities, these steps have to be repeated. Use of depository services for pledging/ hypothecating the securities makes the process very simple and cost effective. The securities pledged/hypothecated are transferred to a segregated or collateral account through book entries in the records of the depository.



A beneficial owner may contract a loan against the securities owned by him. He may borrow from a bank or any other person. A pledge transaction needs an identification which may be an agreement number. The borrower is called a pledgor and the lender is called a pledgee. There can be any number of pledge/hypothecation transactions between the same set of pledgees and pledgors. Each of these transactions have to be identified separately by an agreement number in the depository participant module (DPM) and a separate set of instructions have to be given against each of these transactions (agreement numbers). Multiple pledge instructions can be executed on the basis of a single agreement. In such cases, the same agreement number should be quoted for all the pledge instructions.

Trading Member (Broker): -

A broker is an intermediary who arranges to buy and sell securities on behalf of clients (the buyer and the seller).
According to Rule 2 (e) of SEBI (Stock Brokers and Sub-Brokers) Rules, 1992, a stockbroker means a member of a recognized stock exchange. No stockbroker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration granted by SEBI. A stockbroker applies for registration to SEBI through a stock exchange or stock exchanges of which he or she is admitted as a member. SEBI may grant a certificate to a stockbroker [as per SEBI (Stock Brokers and Sub-Brokers) Rules, 1992] subject to the conditions that:

4. He holds the membership of any stock exchange;
5. He shall abide by the rules, regulations and bye-laws of the stock exchange or stock exchanges of which he is a member;
6. In case of any change in the status and constitution, he shall obtain prior permission of SEBI to continue to buy, sell or deal in securities in any stock exchange;
7. He shall pay the amount of fees for registration in the prescribed manner; and
8. He shall take adequate steps for redressal of grievances of the investors within one month of the date of the receipt of the complaint and keep SEBI informed about the number, nature and other particulars of the complaints.

While considering the application of an entity for grant of registration as a stock broker, SEBI shall take into account the following namely, whether the stock broker applicant –

- Is eligible to be admitted as a member of a stock exchange;
- Has the necessary infrastructure like adequate office space, equipment and man power to effectively discharge his activities;
- has any past experience in the business of buying, selling or dealing in securities;

Nifty index

S&P CNX Nifty (Nifty), is a scientifically developed, 50 stock index, reflecting accurately the market movement of the Indian markets. It comprises of some of the largest and most liquid stocks traded on the NSE. It is maintained by India Index Services & Products Ltd. (IISL), which is a joint venture between NSE and CRISIL. The index has been co-branded by Standard & Poor's (S&P). Nifty is the barometer of the Indian markets.

Circuit Breakers

The Exchange has implemented index-based market-wide circuit breakers in compulsory rolling settlement with effect from July 02, 2001. In addition to the circuit breakers, price bands are also applicable on individual securities.

Index-based Market-wide Circuit Breakers: The index-based market-wide circuit breaker system applies

at 3 stages of the index movement, either way viz. at 10%, 15% and 20%. These circuit breakers when triggered bring about a coordinated trading halt in all equity and equity derivative markets nationwide. The market-wide circuit breakers are triggered by movement of either the BSE Sensex or the NSE S&P CNX Nifty, whichever is breached earlier.

- In case of a 10% movement of either of these indices, there would be a one-hour market halt if the movement takes place before 1:00 p.m. In case the movement takes place at or after 1:00 p.m. but before 2:30 p.m. there would be trading halt for ½ hour. In case movement takes place at or after 2:30 p.m. there will be no trading halt at the 10% level and market shall continue trading.
- In case of a 15% movement of either index, there shall be a two-hour halt if the movement takes place before 1 p.m. If the 15% trigger is reached on or after 1:00 p.m., but before 2:00 p.m., there shall be a one-hour halt. If the 15% trigger is reached on or after 2:00 p.m. the trading shall halt for remainder of the day.
- In case of a 20% movement of the index, trading shall be halted for the remainder of the day. These percentages are translated into absolute points of index variations on a quarterly basis. At the end of each quarter, these absolute points of index variations are revised for the applicability for the next quarter. The absolute points are calculated based on closing level of index on the last day of the trading in a quarter and rounded off to the nearest 10 points in case of S&P CNX Nifty.

Stop Loss Matching: -

All stop loss orders entered into the system are stored in the stop loss book. These orders can contain two prices.

***Trigger Price*:** It is the price at which the order gets triggered from the stop loss book.

***Limit Price*:** It is the price for orders after the orders get triggered from the stop loss book. If the limit price is not specified, the trigger price is taken as the limit price for the order. The stop loss orders are prioritized in the stop loss book with the most likely order to trigger first and the least likely to trigger last. The priority is same as that of the regular lot book. The stop loss condition is met under the following circumstances:

> ***Sell Order*** - A sell order in the stop loss book gets triggered when the last traded price in the normal market reaches or falls below the trigger price of the order.
>
> ***Buy Order*** - A buy order in the stop loss book gets triggered when the last traded price in the normal market reaches or exceeds the trigger price of the order.

When a stop loss order with IOC condition enters the system, the order is released in the market after it is triggered. Once triggered, the order scans the counter order book for a suitable match to result in a trade or else is cancelled by the system.

Merchant Banking

The merchant banking activity in India is governed by SEBI (Merchant Bankers) Regulations, 1992. All merchant bankers have to be registered with SEBI. The person applying for certificate of registration as merchant banker has to be a body corporate other than a non-banking financial company, has necessary infrastructure, and has at least two persons in his employment with experience to conduct the business of

the merchant banker. The applicant has to fulfill the capital adequacy requirements, with prescribed minimum net worth. The regulations specify the code of conduct to be followed by merchant bankers, responsibilities of lead managers, payments of fees and disclosures to SEBI. They are required to appoint a Compliance Officer, who monitors compliance requirements of the securities laws and is responsible for redressal of investor grievance.

Demat Issues

As per SEBI mandate, all new IPO's are compulsorily traded in dematerialized form. The admission to a depository for dematerialization of securities is a prerequisite for making a public or rights issue or an offer for sale. The investors would however, have the option of either subscribing to securities in physical form or dematerialized form. The Companies Act, 1956 requires that every public listed company making IPO of any security for Rs.10 Crore or more shall issue the same only in dematerialized form.

Portfolio

A Portfolio is a combination of different investment assets mixed and matched for the purpose of achieving an investor's goal(s). Items that are considered a part of your portfolio can include any asset you own-from shares, debentures, bonds, mutual fund units to items such as gold, art and even real estate etc. However, for most investors a portfolio has come to signify an investment in financial instruments like shares, debentures, fixed deposits, mutual fund units.

Commodity Exchange

A Commodity Exchange is an association, or a company of any other body corporate organizing futures trading in commodities. In a wider sense, it is taken to include any organized market place where trade is routed through one mechanism, allowing effective competition among buyers and among sellers – this would include auction-type exchanges, but not wholesale markets, where trade is localized, but effectively takes place through many non-related individual transactions between different permutations of buyers and sellers.

Stock Split

A stock split is a corporate action which splits the existing shares of a particular face value into smaller denominations so that the number of shares increase, however, the market capitalization or the value of shares held by the investors post split remains the same as that before the split. **For e.g**. If a company has issued **1,00,00,000** shares with a face value of **Rs. 10** and the current market price being **Rs. 100**, a 2-for-1 stock split would reduce the face value of the shares to **5** and increase the number of the company's outstanding shares to **2,00,00,000, (1,00,00,000*(10/5)).** Consequently, the share price would also halve to **Rs. 50** so that the market capitalization or the value shares held by an investor remains unchanged. It is the same thing as exchanging a **Rs. 100** note for two **Rs. 50** notes; the value remains the same.

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