

Question Paper

Security Analysis-II (212) : October 2004

Section D : Case Study (50 Marks)

- This section consists of questions with serial number 1 - 5.
- Answer all questions.
- Marks are indicated against each question.
- Do not spend more than 80 - 90 minutes on Section D.

Case Study

Read the case carefully and answer the following questions:

1. Perform Michael Porter analysis of the Indian Paints Industry.

(8 marks) [< Answer >](#)
2. Based on the information provided in the case, assess the performance of the Paints Industry during the year 2003-04.

(6 marks) [< Answer >](#)
3.
 - a. Perform the SWOT Analysis of ICI India Ltd. using the information provided in the case.
 - b. Perform ROE analysis of ICI India Ltd. for last three years based on the Financial Statements given in **Annexure I**.
 - c. Calculate Cash Earning Per Share (CEPS) of ICI India Ltd. during the last three years. Compare CEPS with EPS and comment on your results.

(6 + 6 + 4 = 16 marks) [< Answer >](#)
4. The EPS of ICI India Ltd. is expected to increase by 7% for the next 3 years, and then remain steady at 10% for next two years, before reaching a constant growth rate of 5%. The payout ratio will be 25% during the first 3 years and it will rise to 35% for 4th and 5th year before achieving a constant payout of 20%. You are **required** to
 - a. Determine the required rate of return of ICI India Ltd. shareholders using the Dividend Discount Model if the stock price as on 31st March 2004 was Rs.180.50.
 - b. Calculate the proportion of unsystematic risk to total risk for ICI stock, if the standard deviation of returns on the market is 18% and the standard deviation of returns on the ICI stock has been found to be 15%. The risk free rate is 5% and the market risk premium is 7%.

(8 + 4 = 12 marks) [< Answer >](#)
5. Based on the Technical charts given in **Annexure II**, comment on whether the ICI stock should be bought, sold or held at points A, B, C, and D.

(8 marks) [< Answer >](#)

Indian Paints Industry

The utility of paints has evolved from a decorative use to a surface protection use. Also, known as surface coatings, paints can be classified on the basis of end use, solvent system and solid content.

- a. End Use classification: Under this heading, paints can be classified as decorative/ architectural paints and industrial paints. As the names suggest, decorative paints are mainly used for household and construction purposes while industrial paints are used as coatings for industrial products. Main types of decorative paints are enamels, acrylic emulsions, distempers and exteriors and primary types of industrial paints are marine paints, anti corrosive metal coatings, etc.
- b. Solvent based classification: This includes paints, which use petro products or water as the main solvent. Water based paints are gaining popularity due to their environment friendliness.
- c. Solid content: Can be classified as liquid or solid (powder) paints. Powder coatings find application

mainly in the white goods industry.

- d. The decorative segment dominates the market in India with a 70% share with the rest accounted for by industrial paints. This is as compared to the developed countries where the share is the reverse with the industrial segment being the major one.

Industry Characteristics

- • Working Capital intensive: The number of shades is very large and a sufficient stock of every shade has to be maintained at all levels of the distribution channel, the working capital cycle is very high. The extent can be gauged from the fact that Asian Paints has a 12000 strong dealer network selling more than 150 shades. Also, the number of raw materials required can stretch upto 300. As majority of these raw materials are either imported or sourced from small chemical manufacturers, a large stockpile needs to be maintained.
- • Low Fixed asset requirement: A plant for the manufacture of decorative paint can be set up with a small capital investment. However, the major investment is in setting up distribution channels and building up a brand.
- • Seasonal nature of demand: The demand peaks during festival season while is very lean during monsoons. Thus, a major part of the sales are achieved in the second half of the fiscal year.

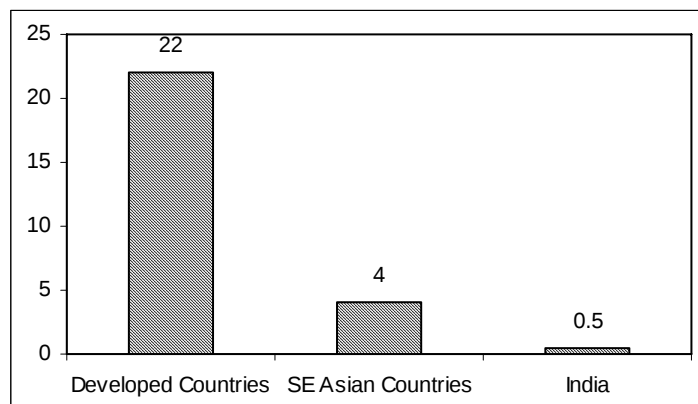
An Overview of Indian Paints Industry

The Indian paints industry is seen to be consolidating, with the share of the organized sector within the industry on the rise. The size of the paints market in India is estimated at Rs 48-50 bn, with the contribution of the organized and unorganized segments in the ratio of 70:30. The unorganized sector has around 2,000 units, which operate on a much smaller scale.

Reduction of excise duties over the last few years, from 40% to the present level of 16%, has helped create a level playing field between the unorganized and the organized segments, as the former is not subject to excise duty. As the unorganized sector loses its competitive edge, it is also losing market share to the organized sector players. Last year, the removal of Special Additional duty and the import duty cuts helped the industry.

In view of the low per capita annual consumption of paints in India (0.5 kg, compared to 4 kg in South East Asian countries, 22 kg in developed countries and a global average of 15 kg), the domestic paints industry has tremendous potential.

Per Capita Consumption of Paints (Kg)



While high excise duties hindered the growth of the industry in the early 1990s, growth picked up after 1992, mainly due to reduction of duties and acceleration of industrial growth. The growth of the paints industry is mainly attributable to urban markets. Consolidation is taking place in favour of large players, as increasing costs and intense competition afflict smaller companies.

The paints industry is working-capital intensive, rather than fixed-asset intensive. As in consumer non-durables, distribution strengths and brand building are of paramount importance.

Segments

Decorative and industrial paints are the segments within the sector, in a 70:30 proportion. Brand equity, a wide range of shades, distribution strength and efficient working capital management are key success factors in the decorative paints segment. A strong distribution network acts as an entry barrier. Within the decorative

segment, enamel is the largest sub-segment, accounting for over 50%, followed by wall finishes, primers and wood finishes. The season for decorative paints is from October to March, a period characterized by festivals like Diwali, and the summer, when painting is normally carried out.

The industrial segment pertains mainly to automobiles. In this segment, technological competence, product range and customized solutions are of utmost importance. Technological strength is another entry barrier. The slowdown in the automobile sector has affected the overall growth of the industrial segment, as the former contributes around 50% of the latter's revenues.

Other sub-segments are marine paints, powder coatings for white goods like refrigerators and washing machines, and industrial coatings. Within the paints sector, the proportion of the industrial paints segment is likely to increase in the next few years and the ratio is likely to become 50:50.

Raw Material

The paint industry is raw material-intensive, in terms of value and quantity of raw materials used. Raw material costs account for around 70% of total production costs. Imports constitute around 30% of the raw material requirements. The most critical raw materials used are titanium dioxide (TD) (rutile and anatase grades), phthalic anhydride (PAN) and pentaerithritol (PENTA). Some other raw materials like castor oil, soyabean oil, linseed oil and mineral turpentine are also used. Increasing prices of raw materials, on the one hand, and the inability to pass on the price increases from recession and competitive pressure, on the other, are major areas of concern.

Production Process

Paint production involves mixing of various raw materials in a balanced proportion. Based on a predetermined formula, pigments, extenders, resins and additives are ground together in a dispersion or grinding mill. The ground mixture is then dispersed in a medium, which could be based on oil or water depending on the paint produced. The final volume and shade are obtained by adding resins, driers, solvents and some additives to the concentrated dispersion.

Growth Prospects

The growth rates in GDP and industrial production have a direct bearing on the paints industry, as these, in turn, affect sectors like construction and automobiles. Last year the industry grew by 10-12 percent in volume terms.

The recent deceleration in industrial production and the weakening rupee, coupled with the spurt in the international prices of crude oil and chemicals, are expected to act as dampeners for the paint industry.

The paints sector will be hoping for a revival in the domestic automobile sector. An increase in construction activity should also lead to a pickup in demand for paints. The growth in the consumer non-durables sector will also augur well for the paints industry.

Major Players

Asian Paints India Ltd.

Asian Paints is the largest player in India, and also the market leader in decorative paints, with a 40% market share. It has a domestic installed capacity of 162,700 tpa for paints. With the government planning a thrust in the housing sector, players like Asian Paints stand to benefit, as demand for decorative paints will grow.

Taking advantage of the increase in the automatic approval of overseas investments, Asian Paints recently acquired the entire paint business of Pacific Paints Co. Pty. Ltd., Australia, for Aus\$375,000. Last year, Asian Paints had acquired the largest paint company in Sri Lanka.

Asian Paints' vision is to be among the top five decorative paints companies in the world by 2007.

Goodlass Nerolac Paints Ltd.

Goodlass Nerolac Paints is the leader in the industrial paints segment. Earlier this year, Kansai Paints of Japan bought out the Tatas' stake in Goodlass Nerolac Paints, to raise its stake in the company to 65%. Goodlass Nerolac Paints's manufacturing capacity is 88,140 tpa.

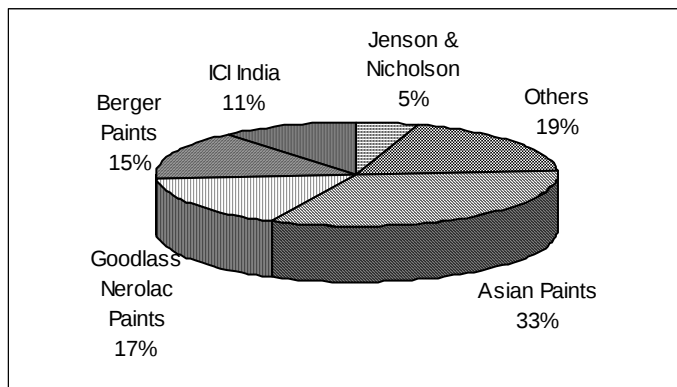
Berger Paints Ltd.

Berger Paints acquired Rajdoot Paints Ltd in FY1999. Thus, it has consolidated its position within the decorative segment. Installed capacity is 56,420 tpa.

In addition to increased focus on its existing industrial paints / protective coatings business, the company is entering into a 50:50 joint venture with ICI India Ltd, exclusively for automobile and industrial paints. Both

companies will have equal representation on the board of the JV. The automobile and industrial paints business of ICI India, along with the assets at Rishra, exclusively used for the paints business, will be transferred to the joint venture for an aggregate consideration of Rs.165 mn.

Market Shares



ICI India Ltd

The ICI India started in 1911 when Brunner Mond & Co, one of the four companies that combined to form ICI in UK, opened a trading office in Calcutta to sell alkalis and dyes. In 1923, it became Brunner Mond & Co (India) and in 1929 the name was changed to Imperial Chemical Industries (India) Ltd. This was followed by a period of sustained expansion, diversification and growth.

ICI's manufacturing activities commenced in 1939 after the setting up of Alkali and Chemical Corporation of India Ltd (AICI) in Rishra, West Bengal which went on to add rubber chemicals and paints to its portfolio.

Indian Explosives Ltd (IEL) was set up in Gomia in 1954, the result of an agreement with the government of India. Chemical and Fibres of India Ltd (CAFI) came up in Thane in 1963, manufacturing polyester staple fibre.

When fertilizer manufacturing operations began in Panki near Kanpur in 1969 it was the largest private sector investment in fertilizers in India. On completion of the 3rd stream, the plant had a capacity to manufacture 675,000 tpa of urea fertilizer. The ICI Research and Technology Centre was established in Thane in 1976 and a Crop Protection Chemicals and Pharmaceuticals unit came up in Ennore, near Chennai in 1978.

In 1984 all these companies were merged in what was the one of corporate India's largest mergers. Nalco Chemicals India Ltd was formed in 1987 with Nalco Chemical Company USA and ICI India Ltd, each holding 40% of the equity. The first phase of ICI India's restructuring was completed in 1993 with the disinvestments of the fibres, fertilizers and seeds businesses while the agrochemicals business was transferred to a joint venture with Zeneca Limited of UK in 1995. 1996 saw the establishment of a joint venture, Initiating Explosives Systems India Ltd., with The Ensign-Bickford Company of the USA for the manufacture of Explosives Initiating Systems.

While the new paints plant and polyurethanes systems house were commissioned at Thane in 1997, another paints plant was commissioned at Mohali near Chandigarh and the Uniqema Innovation Centre opened at Thane the following year. In 1998 itself, ICI exited from its joint ventures with Nalco Chemical Company, USA and Zeneca, UK, as part of its continuing restructuring exercise.

As part of the process the explosives business was transferred to Indian Explosives Limited, a joint venture between the Company and Orica Investments Pty Ltd., Australia in 1999. Trading in National Starch Adhesives products commenced in 1999, followed by the commissioning of a plant at Thane in 2000.

In line with ICI India's strategic objective, the Polyurethanes business was sold to a wholly owned subsidiary of Huntsman Corporation of USA in 2001. The Motors and Industrial Paints business was transferred to a Joint Venture with Berger Paints India Limited also in 2001.

ICI India completed the acquisition of a majority stake in Quest International India Limited, a joint venture between ICI India, Quest International BV and Hindustan Lever Limited.

ICI India, a 51% subsidiary of ICI Plc, UK, has a presence in paints, explosives, rubber chemicals, catalysts, pharmaceuticals, surfactants and acrylics. In line with its parent's restructuring in the late 80s, ICI hived off its fertiliser and polyester fibres businesses. Although the company operates in 21 product lines, 4 of its major product lines – explosives, paints, pharma and rubber chemicals – account for 80% of revenues. The explosives business, which has been hived into a 70:30 JV with Ensign Bickford Plc, saw a volume growth of 12% in FY99. It has acquired a small explosive manufacturing unit in Gujarat and has set up a new 6,000 tpa emulsive explosive unit at Rourkela. It is also selling part of its stake in its subsidiary Initiating Explosives Systems to the same company after which ICI would hold 51% in the company.

Recent Developments

The company, to fall in line with the parent company (ICI, UK), has carried out restructuring. It has divested itself of the fibers (sold to Reliance), fertilisers (sold to Duncans), seeds and agrochemicals divisions. Workforce has been pruned to 3000 presently, from 10,000 in FY94. ICI is adding capacities to its paints business, broadening its product mix and expanding distribution network. It has set up 2 new units at Mumbai and Chandigarh to increase its paints capacity 4 folds to 60,000 kl per annum. Currently paints account for 40 per cent of ICI's Rs 8.3 bn sales turnover. It has enhanced its dealer network to 5,200 and has introduced tinting machines. It has set up an Innovation Centre for Autocolor at Mohali.

In FY99, rubber chemical sales grew 15%, supported by an improved product mix. But global prices declined sharply in the year, which put pressure on margins. The pharma division sold some animal health brands to focus on cardiovascular and anaesthetics. ICI Plc's catalyst business world-wide was relaunched after the merger of several entities under a new identity, Syntex. This helped the Indian arm double profits in FY99. The catalysts division launched three new products in the year. The polyurethanes business doubled sales in FY99 by increasing market share and focusing on the auto and footwear segments. ICI's PAT improved by 22% due to exceptional income through divestment in NALCO chemicals (sale of ZIAL and some animal health brands).

Pursuant to the approval given by the Board in its meeting held on 25 Jan 2002 for the divestment of Pharmaceuticals Business, ICI India had sought shareholders' approval through Postal Ballot. The shareholders of ICI India Limited have approved the divestment of the company's pharmaceuticals business to Nicholas Piramal India Limited in the month of March.

Future Plans

ICI plans to boost exports in syntex & pharmaceuticals businesses. It plans to improve forex earnings through trading activities. ICI has plans to go in for acquisitions in order to increase sales by 8 folds in 7 years. ICI Plc has identified Asia as a major vehicle for growth and its acquisitions in niche chemical business are expected to offer good opportunities for ICI India. The company identified paints, speciality products and performance materials (polyurethanes and acrylic) as core areas to focus on.

The profitability levels for the surfactants business (which has turnover of Rs 100 crore) is one of the best in the industry. In fact it currently has a market share of about 7-8 per cent in the business and is doing very well primarily due to its ability to service clients. It has a textile research tiliz in Thane to service not only clients in India, but also the entire Asia Pacific. The business has huge growth potential post-2005, when the quota regime is phased out. It has the ability to emerge as a large-scale player.

ICI India is doing fairly well in the adhesives/starch business as well, which it started about two years ago. The turnover for the division stands at about Rs 70 crore and it is growing by 50 per cent year-on-year. There is big potential once the Government regulation regarding starch is modified to the benefit of domestic producers. At present the regulation is inconsistent, but the Government is proposing to address it keeping in view the post-2005 scenario.

However, its Rs 70-crore rubber chemicals business is making losses. But it is not only ICI India; everyone in this business has been making losses primarily because prices have been kept artificially low. It is taking steps to revive the business through initiatives such as cost cutting, augmenting capacity for specific grades of rubber chemicals and so on. It is also actively exporting the product in the international markets. For the present, it is keen to revive the business than to divest it. However, in the long run, it is expected to move out of this business.

ICI India also has a 51:49 joint venture Quest International along with Hindustan Lever for flavours and fragrances. But it is a challenging time with the FMCG market slowing down. However, ICI India is leveraging its capabilities to service other markets. It has started exporting the products, predominantly fragrances, to countries located in the Asia Pacific region. At present, about one-third of the business for Quest is coming

from exports. ICI is also contemplating to set up an export unit for fragrances.

However, it will not be participating in the food ingredients business anymore in India. But it will not make much difference in financial terms, as the business was quite small, less than Rs 3 crore.

There is talk that ICI has been actively scouting for acquisitions, as the company has a strong cash surplus after the recent divestments. It has a cash surplus of about Rs 350 crore which it plans to invest in core businesses. For acquisitions, it is currently evaluating all options. The cash would also be utilised for expansion plans, including the capacity expansion ICI is undertaking for rubber chemicals. ICI is also exploring if it can further augment capacity for paints from the current 60 million liters per year.

Last year ICI's core businesses grew by about 20 per cent and it is expected to maintain the high level of growth and effectively utilise its financial strength.

Annexure I
Paint Industry Aggregates **(Rs. in million)**

Paints (All)	2004	2003	2002
Net Sales	14746.53	29271.09	31039.54
Operating Income	14926.15	29520.99	31411.23
Expenses	13086.34	25858.01	28046.35
OPBDIT	1839.81	3662.97	3364.88
OPBDT	1782.66	3072.33	2399.33
OPBT	1419.98	2123.36	1350.90
PBT	530.50	197.38	433.57
PAT	1019.95	1348.99	1159.96
Gross Block	3831.44	11518.30	11171.49
Net Block	1608.90	6673.47	6834.54
Capital WIP	273.10	73.76	344.44
Investment	212.56	1676.90	1127.41
Current Assets	2502.88	3281.84	5229.25
Equity Capital	418.74	1137.20	1230.54
Reserves	4084.75	6815.26	6723.23
Debt	1091.33	3755.70	5152.93
Current Liabilities	920.05	3636.77	4303.53

Important Financial Ratios and Growth Rates of Paints Industry

	2004	2003	2002
ROCE	18.23%	11.52%	8.85%
RONW	22.65%	16.96%	14.58%
Operating Income Growth (YoY)	-49.44%	-6.02%	3.58%
PAT Growth (YoY)	-24.39%	16.30%	62.86%

Financial Statements of ICI India Ltd.

Income Statement **(Rs. in million)**

For the Year ending on 31 st March	2004	2003	2002
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Net Sales	6851.20	7081.00	6327.09
Operating Income	6991.40	7209.10	6463.78
OPBDIT	742.80	726.40	675.79
OPBDT	673.70	678.30	608.88
OPBT	430.90	444.60	379.26
Non-Operating Income	595.30	158.70	116.48
Extraordinary/Prior Period	374.70	802.60	443.54
Tax	310.00	329.00	134.10
Profit after tax (PAT)	1090.90	1076.90	805.18
Equity Dividend	510.90	408.70	408.71

Balance Sheet		(Rs. in million)	
As on 31 st March	2004	2003	2002
Assets			
Gross Block	3416.30	3526.20	3410.68
Net Block	1563.80	1771.10	1969.67
Capital WIP	38.10	117.20	51.99
Investments	2432.40	1999.50	1599.57
Inventory	1239.00	1051.00	1051.93
Receivables	1065.90	854.50	958.52
Other Current Assets	3065.80	2260.90	1430.05
Total	9405.00	8054.20	7061.73
Liabilities			
Equity Share Capital (Face Value Rs10)	408.70	408.70	408.71
Reserves	4653.30	4132.40	3397.94
Total Debt	200.00	0.00	235.35
Creditors and Acceptances	1771.40	1513.60	1359.61
Other current liabilities/provisions	2371.60	1999.50	1660.12
Total	9405.00	8054.20	7061.73

A

Annexure II
Technical Analysis Charts of ICI India Ltd.
Moving Average Chart

Price Line

B

200 day Moving average



MACD Chart

ROC Chart

RSI Chart

END OF SECTION D

Section E : Caselets (50 Marks)

- This section consists of questions with serial number 6 - 11.
- Answer **all** questions.
- Marks are indicated against each question.
- Do not spend more than 80 - 90 minutes on Section E.

Caselet 1

Read the caselet carefully and answer the following questions:

6. The caselet mentions that the ISE has been established to solve the problem of low turnover at the regional stock exchanges. When the investors including brokers can trade directly at NSE and BSE through the online trading system what are the benefits of ISE to participating exchanges, members, investors and companies? Discuss.

(9 marks) [< Answer >](#)

7. It has been proved time and again through various incidents of market misconduct that it is difficult to manage risk at a single location stock exchange. Given that ISE is a spread out exchange, how risk management would be done at ISE? Discuss.

(8 marks) [< Answer >](#)

The trading volumes on stock exchanges have been witnessing phenomenal growth for last few years. The growth of turnover has, however, not been uniform across exchanges. About a dozen exchanges reported nil turnover during 2001-02, 15 small exchanges put together reported less than 0.01% of total turnover during 2001-02, and 21 exchanges together reported less than 4% of turnover, while 2 big exchanges accounted for over 96% of turnover. With fall in turnover, the financial health of many exchanges is deteriorating. While the income of the small exchanges is not increasing (rather declined during 2000-01), they continue to incur increasing administrative and maintenance expenses and increased investment on setting up on-line trading and settlement systems. About a dozen exchanges suffered losses during 2000-01. The exchanges (except NSE and BSE) together incurred a total loss of about Rs.17 crore while BSE and NSE earned handsome profits. The data for Q4 of 2002-2003 revealed that even BSE was facing a liquidity crunch. The total number of scrips traded

on BSE declined by almost 20% from Jan to April 2003. Around 50% of the 5000 odd listed shares were not traded at all during this period. Scripts not traded even once on the exchange shot up by almost 25% as compared with last year's data. Tech companies alone accounted for more than 40% of the companies not traded and the remaining were media, telecom, entertainment and other new economy companies. Moreover, almost 70% of the companies not traded were B2 companies, 20% were Z group companies and remaining were B1 companies. In order to solve the problems of regional exchanges, the Inter-connected stock exchange of India was established. Inter-connected Stock Exchange of India Limited (ISE) has been promoted by 14 Regional Stock Exchanges to provide cost-effective trading linkage/connectivity to all the members of the Participating Exchanges, with the objective of widening the market for the securities listed on these Exchanges. ISE is a national-level stock exchange and provides trading, clearing, settlement, risk management and surveillance support to its Traders and Dealers. ISE aims to address the needs of small companies and retail investors with the guiding principle of optimising the existing infrastructure and harnessing the potential of regional markets, so as to transform these into a liquid and vibrant market through the use of state-of-the-art technology and networking.

The Participating Exchanges of ISE have in all about 4500 stock brokers, out of which more than 200 have been currently registered as Traders on ISE. In order to leverage its infrastructure and to expand its nationwide reach, ISE has also appointed around 450 Dealers across 70 cities other than the Participating Exchange centers. These Dealers are administratively supported through the regional offices of ISE at Delhi (north), Kolkata (east), Coimbatore (south) and Nagpur (central), besides Mumbai (west).

ISE has also floated a wholly-owned subsidiary, ISE Securities & Services Limited (ISS), which has taken up corporate membership of the National Stock Exchange of India Ltd. (NSE) in both the Capital Market and Futures & Options segments and The Stock Exchange, Mumbai in the Equities segment, so that the Traders and Dealers of ISE can access other markets in addition to the ISE market and their local market. ISE thus provides the investors in smaller cities a one-stop solution for cost-effective and efficient trading and settlement in securities.

With the objective of broad basing the range of its services, ISE has started offering the full suite of DP facilities to its Traders, Dealers and their clients.

Caselet 2

Read the caselet carefully and answer the following questions:

8. The caselet mentions that the investment recommendations are published in leading business magazines/newspapers and are available in plenty on various investment related websites on the internet also. However, it also raises a question on the authenticity of such research reports. Why do you think that security analysts will come out with such recommendations that may harm the ordinary retail investors? Discuss.

(9 marks) < [Answer](#) >

9. The caselet mentions that SEBI has been almost indifferent as far as the stock research reports are concerned. There are no equivalent guidelines as prescribed by SEC under the Sarbanes-Oxley Act, 2002 in United States. Suggest briefly the various aspects that SEBI should look into to ensure protection of investors interests from unauthentic research reports.

(8 marks) < [Answer](#) >

'Stock research reports' have become more important in the face of the ongoing boom in the stock markets. A team of 'expert analysts' prepares these 'research reports'. Each report is expected to provide investors with an in-depth analysis and future financial projections for a company. The objective is to give investors a qualitative feel for the opportunities and risks facing each of the companies covered. Conventionally, research reports are privileged and made available only to select audiences, such as institutional investors. However, the recommendations are more widely circulated. The reason is that if these recommendations are vindicated by the market it helps in attracting investors in future to the brokerage house and increases the brokerage income. As a result though the research reports do not make their way directly to retail investors, their presence is felt in the recommendations made by these brokers. Such investment recommendations are published in leading business magazines/newspapers and are available in plenty on various investment related websites on the Internet also.

But the big question is what is the authenticity of research reports being poured out by various stock-brokers and investment bankers?

In his book “*The Mind of the Wall Street*”, Leon Levy has quoted a study about the authenticity of research reports published by security analysts. The study by Risk Metrics of 89,000 stock research reports issued at Wall Street’s largest firms since 1998 revealed that investors would have done better by ignoring stock analysts’ recommendations and buying those stocks that were least favored the by highly paid ‘investment gurus’. The study featured in Wall Street Journal on 15 August 2001.

The Dalal street is not much different from Wall Street. In 1998, Harshad Mehta, the ‘Great Bull’ of Indian capital markets, hit upon a brilliant idea of repeating his ‘success’ story of 1992. He launched a website ‘harshad.com’ which would provide ‘investment advice’ (read tips) in the guise of ‘research reports’. He believed that ‘the same old formula of rigging up select scrips to stratospheric heights would work all over again’. However, the markets crashed in June 1998 and many investors burnt their fingers again.

In a report published in May 2001, Securities Exchange Board of India (SEBI) indicted JM Morgan Stanley Securities Pvt Ltd, stating that a limited review its trading activities showed instances of transactions which appeared to be of a manipulative nature which could have impacted the decline in certain scrip prices. The report also stated "trading by clients is sometimes influenced by a large plethora of research reports released by the member, which are company specific or general in nature. To go into the recommendations contained in the research reports and their impact upon general trading sentiment would require an exhaustive analysis." It is worthwhile noting that JM Morgan Stanley Securities Pvt Ltd is a trading member of the Bombay Stock Exchange and the National Stock Exchange.

Though no systematic study of stock research reports similar to that of Risk Metrics Group has been conducted in India, however, *Business Line*, the leading business daily, conducted a survey of investment recommendations by brokers/broking houses in 2001.

A look at the recommendation patterns of analyst opinions from different equity houses across the country reveals that 8 out of every 10 recommendations is a ‘buy’. The bias towards a ‘buy’ recommendation is uniform across most industry segments. Investors may increasingly be steered towards ‘buy’ candidates. Few, if any, recommendations focus on companies that investors should exit from. But the important question is whether investors profit from such advice. Given that analysts are better informed, should the small investor take such recommendations at face value and make them the basis for their stock-selection/rejection? But analysts can go wrong. And there is evidence of it.

Of a sample of stocks that *Business Line* surveyed, 83 per cent had ‘buy’ recommendations. Only 8 per cent carried a ‘sell’ while on the remaining 9 per cent, analysts debated between recommending a buy or a sell. In 53 per cent of the buy recommendations, analysts have been proved right. By this, we mean that the stocks moved up after they were so rated. Stock prices either moved down or were passive only 47 per cent of the time. However, it comes as a surprise that analysts were more vindicated in their ‘sell’ ratings, with 60 per cent of the stocks so rated bearing out the analyst's recommendations. Only in four cases out of ten did stocks see an uptrend in prices after getting a ‘sell’ rating. In the stocks where analysts differed in their judgement on whether to rate them a buy or a sell, only 15 per cent actually rose. On the other hand, 46 per cent of the recommendations tilted in favour of a ‘sell’. The remaining 38 per cent of the stocks saw prices remain passive, neither justifying a buy nor a sell judgement.

SEBI has been almost indifferent as far as the stock research reports are concerned. There are no equivalent guidelines as prescribed by SEC under the Sarbanes-Oxley Act, 2002 in United States.

The Securities Exchange Commission (SEC) framed a regulation called ‘Fair Disclosure’ (FD) in 2001 which required that the companies should make any price sensitive information public at the same time and not to select analysts and investors ahead of the rest. Recently under the Sarbanes-Oxley Act, 2002 SEC has prescribed tighter regulations for security analysts and the research reports. Are the regulators listening?

Caselet 3

Read the caselet carefully and answer the following questions:

10. The caselet mentions that the Indian stock market has moved to T+2 settlement from April 2003. Describe the advantages of rolling settlement over the earlier system of periodical settlement.

(7 marks) < [Answer](#) >

11. What are the major reforms that have been undertaken by SEBI consequent to the series of scams that have struck the Indian stock market? Discuss.

(9 marks) < Answer >

Markets thrive on sentiment particularly the stock exchange, which is nothing but a pressure-cooker of emotions and biases making the best bet. Perhaps that was why the capital market received the maximum attention and freedom when Dr Manmohan Singh decided the country had had enough of socialist growth.

The immediate result of his radical measures was a change in sentiment. It altered the way people looked at the country, both from within and without. Everything had a flavour of the market place. This change in sentiment and approach was perhaps the single-most defining restructuring achieved by the reforms.

When entrepreneurs realised they could get a much higher not necessarily fair price for equity, they flooded the primary market with new issues. What followed was a boom hitherto not seen in the country. When in 1992 the Bombay Stock Exchange Sensitive Index crossed the 4000-mark in 1992, it had more than doubled in less than a year.

The absence of big money and integration with other markets was the root cause of the scam. Operators found a way to route idle money from the banking system to the stock market to fuel its voracious appetite.

In spite of the initial setback, however, the integration with the global markets continued. Indian companies were allowed to raise funds abroad through Global Depository Receipts and American Depository Receipts. Market players began setting their sights higher, such as the New York Stock Exchange and Nasdaq. Over the next few years, the market got institutionalised with the entry of a number of mutual funds and foreign institutional investors (FIIs) that brought tonnes of money into the market.

It was perhaps the shift from a unique market to a common market that threw up opportunities, both for scrupulous as well as unscrupulous operators.

While the intensity and nature of trading have increased, and the transaction costs have fallen, the market is still plagued with numerous problems. There has been a recurrence of systemic crises over the years the securities scam of 1992, the MS Shoes scandal of 1994, the vanishing NBFCs in 1994-1996, the CRB fiasco of 1997, the stock price manipulation in 1998, the dismissal of the BSE President, Mr Anand Rathi, and the scam of 2001, leading to the arrest of the broker, Ketan Parekh.

However, over the years, reforms in the equity market have not just produced scams and manipulators, but also brought the country on a par with many a developed market on several counts. Today, India boasts of a variety of products, including stock futures an instrument launched only by select markets.

The introduction of rolling settlement was the final step in the direction of modernising the stock market. Though it has not adversely affected volumes, unless electronic fund transfer is made available, the volumes may not increase.

Market participants feel that SEBI and the RBI should quickly evolve a mechanism that would seamlessly link the depositories to the payment system through the clearing corporation to ensure delivery-based payment. A move to T+2 settlement has already been made and STP has also been introduced in a limited way in the equity leg of institutional investors. In the Economic Survey 2003-04, it has been proposed to make the Indian IPO market state of the art, technologically networked, end-to-end seamless market. Recently SEBI has also appointed an expert task force to look into the infrastructure issues of the various segments of the capital market. The task force has been named as Stock Market Infrastructure Leveraging Expert task force (SMILE).

END OF SECTION E

END OF QUESTION PAPER

Suggested Answers

Security Analysis-II (212) : October 2004

Section D: Case Study

1. Michael Porter analysis of the paint industry is as follows:

a. **Threat of Entry:**

The amount of capital investment required is low. So the threat of entry is high. This is evidenced by the fact that there are a large number of players in the unorganized sector in this industry. In the organized sector, there are some players like Asian Paints Ltd, who command high brand equity and a large share of the market. This when combined with the requirement of a large distributor network and high working capital, make the barriers to entry high and the threat of entry low in the organized sector.

b. **Bargaining Power of Buyers:**

The buyers of this industry are the final consumers whose bargaining power is insignificant for decorative paints. For industrial paint bargaining power of the buyer is significant.

c. **Bargaining Power of Suppliers:**

One of the main raw materials, Titanium Dioxide is partly produced in India and partly imported. There are no problems with the availability of this raw material. Among the other raw materials, excepting the Phthalic Anhydride, for which 80% of the production is concentrated in the hands of two suppliers, there is no such concentration of production capacity with few suppliers for any other raw material. Keeping everything in view, excepting the import of Titanium Dioxide, about which no information about the suppliers is available, it can be said that the bargaining power of suppliers is low. The suppliers of Phthalic Anhydride also cannot exercise much bargaining power because of the presence of other 5 producers as well as the low growth in demand at present.

d. **Threat of Substitute Products:**

There are no substitute products for paints. Hence threat of substitute products is almost non-existent.

e. **Competitive Rivalry among the Players:**

The rivalry among the existing players is high. While Asian Paints is ahead of others, the competitors are trying hard to gain some ground. The rivalry is going to increase with the rural and suburban markets, till now catered to by the unorganized sector, getting opened to the organized players.

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2. Volumes of the paints industry are very closely linked to the GDP growth. A Budget that encourages GDP growth will definitely generate demand and create volumes for the industry. The support expected for the agricultural sector in the Budget would also help the paints industry, as there is much scope for growth in the rural segment.

Last year the duty cuts on import of chemicals helped the industry. The good monsoons had also provided a fillip on the volumes side. Last year, the industry grew by about 10-12 per cent in volume terms. Though there was pressure on margins in the first half of the financial year with input prices going up, it eased during the latter half of the year due to several factors including the reduction in import duty on chemicals, appreciation of the rupee, and removal of the Special Additional Duty. The industry had passed on some of these benefits to the consumer and there was about three per cent reduction in product prices. The pressure on margins was, however, back in the first couple of months of the current fiscal (2003-04) as a result of which the price cuts are being rolled back. The pressure has been due to the increase in international chemical prices and also oil prices going up. This has adversely affected the Operating income growth rate and PAT growth rate during the last year. In spite of this, the ROCE and RONW have shown an increasing trend during the last three years.

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3. a. SWOT Analysis of ICI India Ltd.

Strengths

1. 1. Subsidiary of world leader in paints ICI Plc.

2. Operates in 21 product lines including explosives, paints, pharma and rubber chemicals.
3. Capacity, product mix and distribution channel.
4. Cash surplus of Rs 350 crores which it plans to invest in core businesses.

Weaknesses

1. Presence in too many product lines hampers focus on any one industry.
2. In spite of being world leader, ICI India has not been able to face competition from Asian Paints effectively.

Opportunities

1. Textile research unit in Thane has a huge growth potential post 2005 when the quota regime is phased out. It has the ability to emerge as a large-scale player.
2. The adhesive/starch business of ICI India has a big potential once the government regulation regarding starch is modified to the benefit of domestic producers.

Threats

1. ICI India's joint venture with HLL for flavours and fragrances has not picked up well due to slow down in the FMCG sector.
2. Consolidation measures by competitors like Asian Paints, Goodlass Nerolac and Berger Paints may lead to increased competition in the industry.
3. Post-2005, the textile research division may face competition from foreign firms.

b. ROE Analysis:

	2002	2003	2004
PAT	805.18	1076.90	1090.90
PBT	939.28	1405.90	1400.90
Net sales	6327.09	7081.00	6851.20
TA	7061.73	8054.20	9405.00
NW	3806.65	4541.10	5062.00
PAT/PBT (1)	0.857	0.766	0.779
PBT/Sales (2)	0.148	0.199	0.204
Sales/TA (3)	0.896	0.879	0.728
TA/NW (4)	1.855	1.774	1.858
ROE (%) = 1 × 2 × 3 × 4	21.08	23.76	21.49

Inferences:

- i. Profit retention after tax had reduced in 2003 and picked up subsequently. This was because there was hefty increase in the tax in 2003 and 2004.
- ii. Profit before tax margin has increased throughout the period indicating efficient management of operations.
- iii. Assets turnover ratio has decreased during the three year period.
- iv. Leverage (TA/NW) declined in 2003 and subsequently recovered.

As a result of these changes, ROE increased in 2003 but subsequently declined in 2004.

$$\text{c. Cash earning per share} = \frac{\text{PAT} + \text{Depreciation}}{\text{No. of stocks outstanding}}$$

	2004	2003	2002
CEPS	$\frac{(1090.90 + 242.80)}{40.871}$ =32.63	$\frac{(1076.90 + 233.70)}{40.871}$ = 32.07	$\frac{(805.18 + 229.62)}{40.871}$ =25.32
EPS	$\frac{1090.90}{40.871}$ = 26.69	$\frac{1076.90}{40.871}$ =26.35	$\frac{805.18}{40.871}$ =19.70

Both CEPS as well as EPS have increased during the period under consideration. CEPS provides a better

idea of the cash available for use within company since depreciation is a non-cash charge. CEPS should be given preference to EPS when analyzing the Indian paint industry because EPS discriminates against growing companies, which have block of assets compared with companies which are growing slowly and therefore not investing in fixed assets.

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4. a. Stock price on March 31, 2004 = Rs 180.50

Current EPS = Rs. 26.69

$$DPS_1 = 26.69 \times 0.25 \times 1.07 = \text{Rs. } 7.14$$

$$DPS_2 = 26.69 \times 0.25 \times (1.07)^2 = \text{Rs. } 7.64$$

$$DPS_3 = 26.69 \times 0.25 \times (1.07)^3 = \text{Rs. } 8.17$$

$$DPS_4 = 26.69 \times 0.35 \times (1.07)^3 \times 1.10 = \text{Rs. } 12.59$$

$$DPS_5 = 26.69 \times 0.35 \times (1.07)^3 \times (1.10)^2 = \text{Rs. } 13.85$$

$$\text{Constant DPS} = 26.69 \times 0.20 \times (1.07)^3 \times (1.10)^2 \times 1.05 = \text{Rs. } 8.31$$

According to Dividend Discount Model

$$180.50 = \frac{7.14}{(1+k)} + \frac{7.64}{(1+k)^2} + \frac{8.17}{(1+k)^3} + \frac{12.59}{(1+k)^4} + \frac{13.85}{(1+k)^5} + \frac{8.31}{(1+k)^5(k-0.05)}$$

At $k = 9\%$, R.H.S = 172.23

At $k = 8.809\%$, R.H.S = 180.46

So, $K = 8.81\%$ approximately

$$b. k_e = R_f + \beta_i (R_m - R_f)$$

$$R_f = 5\%, R_m - R_f = 7\%$$

$$8.81 = 5 + \beta_i \times 7$$

$$3.81 = \beta_i \times 7$$

$$\beta_i = 0.544$$

$$\text{Systematic Risk} = \beta_i^2 \sigma_m^2 = (0.544)^2 \times 324 = 95.88 (\%)^2$$

$$\text{Unsystematic Risk} = \text{Total risk} - \text{Systematic risk} = 225 - 95.88 = 129.12 (\%)^2$$

$$\frac{129.12}{225}$$

$$\text{Proportion of unsystematic risk to total risk} = \frac{129.12}{225} = 0.5739 = 57.39\%$$

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5. A. At this point the 200 day moving average line is moving up whereas the price line is moving down. This indicates that it is a secondary reaction and only after some time a decision can be taken whether the stock can be purchased. Hence, it indicates a hold signal.
- B. At this point MACD line is just at the reference line. Hence, this indicates a hold signal.
- C. As ROC line has started moving up it is an indication to buy the stock.
- D. RSI has touched the overbought position and price is expected to fall, it is an indication to sell the stock.

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Section E: Caselets

Caselet 1

6. Benefits to the Exchanges:

The benefits of ISE to the Exchanges are as follows:

- i. Participating stock Exchanges will be able to easily attract investors and order flows to their market on the combined strength of Inter-Connected Stock Exchange of India Ltd. rather than their own independent small market.
- ii. Liquidity at each Exchange would improve with the increase in the number of participants in the combined market.
- iii. Establishment of strong systems and procedures at ISE in view of the stringent entry norms would improve the safety levels of the Participating stock Exchanges also. Increase in the size of each Exchange at a marginal incremental cost as most Exchange have already established on-line trading would cause optimal utilization of the existing trading facility due to economies of scale.
- iv. Exchanges will be able to meet the demands of increased number of investor, members and companies through consolidated efforts of all Exchanges through focused allocation of resources. ISE would prevent further fragmentation of the market and cause consolidation.

Benefits to the Members:

The benefits of ISE to the members are as follows:

- i. Due to increase in the size of the market the members will have larger business to handle.
- ii. The Regional Exchange member would be in a position to offer more options to local investors.
- iii. Increase in liquidity as against the lack of it in most of the small Exchanges will create new business opportunity.
- iv. Greater safeguards to do business will cause long term advantages and improve profitability and turnover of each member.
- v. All future growth and development of the market happen in a harmonised and consistent manner across all Exchanges jointly rather than individually, thus reducing the cost of future developments.

Benefits to the Investors:

- i. Reduction in transaction cost as they have access to a larger National market through their local brokers without any additional cost or risk.
- ii. Greater liquidity provides an exit route even in an illiquid scrip at a National level. Possible to trade in stocks not available in the local market.
- iii. Strengthened trading and settlement system increase the safety of the investors and thereby their profitability.
- iv. Improved systems further improve the spread of equity cult amongst new category of investor

Benefits to the companies:

The benefits of ISE to the companies are as follows:

- i. The National market will improve the prospects of companies raising resources from a large integrated market against the present fragmented market.
- ii. Gradually a system of single point listing at a regional Exchange and simultaneous trading at all Exchanges amongst ISE could be developed probably at a higher listing fees so that one part of the listing fees can be shared by all Exchanges to compensate their notional loss due to single point listing. However, the companies gain through availability of a larger market with a single point compliance.

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7. The essence of the risk management system in ISE would lie in ensuring that the surveillance and risk management is as system-driven as possible. Further, Centralized, Uniform and Stringent Rules would minimise the risks. Thus, the perceived disadvantage of the geographical spread would be minimised by a system driven system. Additionally, ISE would be taking measures like, margin collection through direct debit of the broker's account with the Central Clearing Bank. Capital Adequacy of Rs 2 Lacs ensures adequate safeguard of the member brokers as their present level of risk is being managed by Rs 2 Lacs of Capital Adequacy in the Regional Exchanges. Besides, large capital is required to conduct more business due to an exposure limit of 12.5 times available on the base minimum capital. This exposure is monitored, until pay-outs are declared. Hence, at any time, the exposure of current settlement along with that of the

previous unsettled settlement cycle, is already covered under the exposure limit. Additional limit of maximum exposure of Rs 5 Lacs per scrip per settlement in case of the illiquid scrip would protect loss from sharp fall in prices of any illiquid scrip. There is a quantity restriction of 1,00,000 shares also in such a scrip. Volumes over and above the specified limit can be done only on a delivery basis thus minimising the risk to the market. Value and Volume-based ceilings on trading in illiquid securities, so as to prevent manipulation and price rigging in such stocks is a unique feature offered by ISE. As far as liquid stocks are concerned, the on-line mark-to -market monitoring mechanism ensures limiting the loss to a pre-decided amount above which the trading rights are suspended, if the margin is not paid.

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Caselet 2

8. This might be not because of any maleficent intention on the part of the analyst or the broking house but more so because of the 'herd mentality'. When everybody is optimistic about a particular industry/company why not invest in it. Ultimately, if there are more 'buy ' orders the price is going to rise. When you see a 'buy' recommendation be sure that there is already a long queue of investors who have already purchased that stock. This reflects immaturity and 'investment' myopia on the part of the security analyst.

However, analysts may not be so 'innocent' always. There is an inherent conflict of interests also. The security analyst/broker might be himself interested in a particular company or companies. He might have build up a position in a particular company and if the company is not doing well or is not expected to do well in future he would like to get out as soon as possible by 'booking' some profits. So he starts his exercise of finding 'greater fools' by recommending the stock for investment.

Further, broking houses, which employ these security analysts get their main business (which is of course not stock research) from the corporates and not investors. It implies that their first duty is towards their 'clients'. So, even if a security analyst would like to present the true picture of a company/markets, he may do so only at the risk of losing his job. This is particularly true in case of big investment banking firms like Goldman Sachs or Morgan Stanley where deals are worth billions of dollars and which depend on a 'feel good factor' among the investing public for everything from their merchant banking business to retail 'broking' business. It is therefore not surprising to find the security analysts of such 'giants' to always predict a rising market no matter what there personal opinion might be.

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9. SEBI should come out with a regulation covering the following points:
1. **Separation of Research Analyst Compensation from Investment Banking Influence:** Brokerage firms should be required to establish a compensation committee to review and approve the compensation of its research analysts. The committee should report to the Board of Directors and may not have representation from the firm's investment banking department.
 2. **Booster Shot Research Reports:** Analysts should be prohibited from issuing positive research reports or reiterating a "buy" recommendation around the expiration of a lock-up agreement (sometimes called "booster shot" research reports).
 3. **Quiet Periods:** SEBI should extend the current quiet periods for the issuance of written research reports to public appearances by managers and co-managers of initial and secondary offerings. It should also establish quiet periods for all dealers who have participated in an offering.
 4. **Pitch Meetings:** Research analysts should be prohibited from participating in "pitches" or other communications for the purpose of soliciting investment banking business.
 5. **Termination of Coverage:** Firms should be required to disclose in a final report that it is terminating research coverage of an issuer that is the subject of a research report.
 6. **Prepublication Review of Research Reports:** SEBI should restrict the prepublication review a and

approval of research reports by persons not directly responsible for research.

7. **Anti-Retaliation:** Investment banking firms, should be asked not to retaliate, or threaten to retaliate, against a research analyst who publishes a research report or makes a public appearance that may adversely affect a present or prospective investment banking relationship.
8. **Disclosure of Any Compensation from the Issuer:** Firms must disclose whether they, any of their affiliates, or the research analyst, received any compensation from the company that is the subject of the research report or public appearance.
9. **Disclosure of Client Relationships:** The brokerage firm must disclose whether the subject of a research report is or recently was a client, and if so, whether it received investment banking services, non-investment banking securities-related services, or non-securities services.
10. **Research Analyst Registration and Qualification:** Research analysts should be subjected to additional registration, qualification, and continuing education requirements.

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Caselet 3

10. Group of 30 (a group to identify the best international practices of securities clearing and settlements) way back in 1989 had recommended that settlement of trades at Stock Exchanges should take place on T+5 on Rolling Settlements basis and subsequently the same should be settled on T+3 and then to T+1 basis. Therefore, Rolling Settlements in any capital markets represent the best international practice as well.

In Rolling Settlements, 3 or 5 denote after how many days the trades done on T day will be settled.

Since, in the Rolling Settlements, the trades are settled earlier than in account period settlement, the settlement risk involved is lower. The reason for this could be that in weekly settlements, the cumulative position built up over various days is consolidated, netted and settled on a single day. This may result in higher deliveries to be settled for the trades done during the week. Since, in Rolling Settlements, trades of a particular day are settled distinctly from the trades on any other day, the settlement of such traded position is spread over various days, thereby reducing the settlement risk. Moreover, the sellers and buyers get the monies and securities for their sale and purchase transactions respectively earlier than in Account Period settlements. This also achieves international best practice for settling trades.

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11. Some of the major reforms carried out in late nineties in secondary market is as under:
 - i. Introduction of screen based trading which brought the much needed transparency
 - ii. Introduction of dematerialization of shares and promulgation of Depository Act which solved the problems of bad delivery and helped in shortening of trading cycle. Further abolition of stamp duty for trading through depositories has brought down the transaction cost.
 - iii. Special sessions for odd lot dealings have been introduced.
 - iv. Corporate membership has been introduced subject to certain conditions. This has brought professionalism in stock broking.
 - v. Abolition of badla and introduction of compulsory rolling settlement in sensx scrips as well as 176 'A' group scrips. This has avoided unnecessary heating up of stocks and reduced their volatility.
 - vi. Introduction of trading in derivatives. This has given impetus to much needed liquidity which had dried up after abolition of badla. Further the derivative products i.e. option and futures on stocks and index can be used also to hedge the risk of investors and operators.
 - vii. Demutualisation of stock exchange is next in the line where the deliberations are taking place to separate the ownership and management to bring in more professionalism and transparency in the stock exchange operations.
 - viii. T + 2 Settlement

ix. Margin Trading

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